A common PPF curve shows the relation between capital goods (goods used to produce other goods) and consumer goods (goods that are used to satisfy needs and wants).

Types of economies:

Within an economic system there is a complex network of individuals (workers and consumers), organisations and institutions, as well as government all of which interrelate to allocate resources.

- Free market economy: Resources are allocated by the market mechanism. The interactions between supply and demand determine where resources are allocated and at what price. This can lead to increased efficiency, choice and innovation, but also tends to increase income inequalities. There is also increased risk to civilians (e.g. they are more at risk of having fewer provisions like health care)
- Planned economy: Resources are owned and allocated by the government. They tend to lead to inefficient economies with limited choice. However, income and wealth tends to be more evenly distributed
- Mixed economy: More resources are allocated through government planning, but resources are owned and allocated by the market mechanism as well. The government aims to provide vital services for citizens, improving economic welfare

It is assumed in many economic theories that **economic agents** are rational decision makers. affecting how resources are allocated in the market. They will make decisions to maximise their net benefits. Marginal analysis is used to measure one decision in isolation.

Consumers will maximise economic welfare and utility. Utility is the satisfaction derived from consuming one extra unit of a good or service

- Workers aim to maximise their welfare at work (e.g. job satisfaction, pay, job security, commuting times, etc.)
- Firms aim to maximise profits
- Governments should aim to achieve macroeconomic objectives a complete the welfare of citizens, however corrupt governments may act in their music

Economic agents don't always act rationally, however, othe neoclassical model assumes they act rationally most of the time.

- They may not act rationally because
- Habitual behaviour
- tot act as an individual due to social norms) - The influence of other people (i.e. her na
- Consumer weakness at computation (calculating which good has the greater marginal utility, etc)

Demand is the quantity buyers are willing and able to buy at an agreed price in a given period of time. Effective demand is demand backed by the ability to pay.

There is a negative relationship between quantity demanded and price. This is because of the law of demising marginal utility; the value of utility consumers gain from the last product consumed falls the greater the number consumed.

As price increases there is a contraction in demand, as price decreases there is an extension in demand. This affects consumer surplus; the difference between how much consumers are willing and able to pay and market equilibrium price.

Demand can shift outwards, so that more is demanded at each and every price level. Likewise it can shift inwards, so that less is demanded. Shifts in the demand curve are caused by;

- Change in population
- Change in advertising
- Change in the price of substitutes
- Change in incomes
- Change in fashion and trends
- Change in interest rates
- Change in the price of complements
- Change in legislation (e.g. seat belts)

Price elasticity of supply is determined by;

- Substitutability and availability of factors of production
- Time period; supply is more inelastic in the short run (where at least one factor is fixed) than in the long run
- Levels of stocks and works in progress
- Levels of spare capacity
- Barriers of entry into the market

Equilibrium price and quantity are determined by free market forces - the forces that act to push down price when there is excess supply and raise price when there is excess demand.

The market clearing price is the price at which their is neither excess demand or supply, so the market is cleared of goods.

Equilibrium price is the price at which planned demand equals planned sale prices. A market may not always tend towards equilibrium price, and the price set may not be that which reflects greatest economic efficiency.

Price has three functions:

- Signalling function; price reflects the interactions between supply and demand, giving information where resources should be allocated
- Rationing function; a change in price leads to more or less being produced, so changes the guantity demanded by buyers (e.g. higher oil prices indicate oil is being rationed)
- Incentive function; the set price can either encourage or discourage the guantity demanded and produced. Higher prices encourage more supply, but discourage demand.

Indirect tax is a tax on spending. There are two types;

- Ad valorem tax which is a percentage of the price of a good
- Specific tax which is a set tax per unit

le.co.uk An increase in taxation causes an inward shift in supply was good of the good is supplied at each and every price level. This is because the cost of pollution rises. Consumers may pay higher prices, but the government should receive greater tax revenues.

Firms may end up receiving lower policy. The incidence of the tax on the producer however depends on the elasticity of the mand and supply. If domand is price elastic or supply is price inelastic, the producer wir bear a greater locor. If demand is price inelastic or supply is price elastic, the consumer will bear the creater barden.

A subsidy is a grant given by the government, which lowers the price of a production to encourage supply. It causes an outward shift in supply. This means firms are able to produce more at a lower cost of production, and should be able to pass on lower prices to consumers. This can hugely help infant industries develop and protect UK markets from more competitive foreign markets. There is, however, an opportunity cost for the government associated with subsidising a market. If demand is inelastic or supply is elastic there will be a larger fall in price, which will primarily benefit the consumers.

If demand is elastic or supply is inelastic, the subsidy will mainly be absorbed by the producer and not passed onto the consumer.

Normal market failure is when resources are inefficiently allocated due to imperfections of the working market mechanism.

Complete market failure is when a market fails to supply any of a good which is demanded, creating a missing market.

Partial market failure is when a market for a good exists, but there is either under- or overproduction of the good.

Types of market failure;

Externalities

Externalities are described as third party spill-over effects from the consumption or production of a good. There is a difference between the social costs and private costs or social benefits

rivalrous or excludable.

Information gaps/Asymmetric information In a perfect market, buyers and sellers have potential access to the same information; symmetric information. However, in most markets there is imperfect information, where buyers and sellers lack all the information required to make an informed decision, resulting in information gaps. The buyer or seller with more information is able to exploit the information gap to their benefit. Resources are then misallocated because it is likely that a good is going to be under or over demanded/supplied compared to if there was perfect information.

Information gaps can be illustrated on a diagram.

Common examples of imperfect information occur in the

Imperfect information

ult is that the actual de



following markets; education (giving rise to the principal-agent problem), pensions, drugs, advertising and financial services such as insurance (which can lead to moral hazard). The principal-agent problem occurs when the principals of an economic decision, and therefore those who gain or lose, have different goals/objectives to the agents. It is the agents who make the decisions on behalf of the principals (for example, managers and shareholders).

Government intervention can be used to correct market failure if the costs of intervening are less than the welfare gained from intervention. This helps promote market-friendly growth. Governments can intervene through;

The use of indirect taxes

Imposing a tax can cause an inward shift in production or consume on copending on who the tax is burdened upon. As a result, private cost shifts inwasse Chat it equals social cost, and the negative externality is internalised. The tax reflects the production and over-consumption of a good with negative externalities. However, there are issues with place, a tax. It is difficult to calculate the size of the tax needed and whether a tax will make an effect.

Subsidies Subsidies can be used to stimulate production in markets that provide positive externalities and would be otherwise under-provided. It should cover the difference between marginal private benefit and marginal social benefit, so that output is at the social optimum. However, as with taxes, there is difficulty in calculating the size of the subsidy needed. An

opportunity cost is also presented to the government, which may result in conflicting objectives. Finally, they can be difficult to remove, as individuals who receive subsidies may lobby the government.

Maximum prices

A maximum price is set below market equilibrium to ensure that everyone can afford basic goods and services. As a result, goods that increase positive externalities are consumed more. There are problems associated such as; decreases in quality, excess demand and the increased risk of black markets forming.

Minimum prices

A minimum price is set above market equilibrium to reduce consumption of goods which produce negative externalities. However, it is likely to cause excess supply, which again can result in black markets.

Regulation

Regulations can be used in a variety of manners to close information gaps (e.g. by enforcing that consumers receive a certain degree of information from suppliers) or to control externalities. Average product - The quantity of output per unit of factor input; total product divided by quantity of inputs

Marginal product - The addition to output produced by an extra unit of input; change in total output divided by change in level of inputs

Increasing returns to scale - An increase in inputs leads to a more than proportional increase in output

Constant returns to scale - An increase in inputs leads to a proportional increase in output *Decreasing returns to scale* - An increase in inputs leads to a less than proportional increase in output

Economic cost of production for a firm is the opportunity cost of production. It is the value that could have been generated had the resources been employed in their next best use. Imputed costs are resources which have an opportunity cost but for which no payment is made:

- Labour
- Financial capital
- Depreciation of physical capital
- Goodwill of brands

Fixed cost - A cost which does not vary directly with output

Variable cost - A cost which varies directly with output

Semi-variable cost - A cost which contains a fixed cost element and a variable cost element Total cost - The cost of producing any given level of output and is equal to total variable cost plus total fixed cost

Total variable cost - The overall cost of factors of production that vary directly with the amount produced

Total fixed cost - The overall cost of factors of production which do not vary directly with output *Average cost* - The average cost of production per unit and is equal of the total cost divided by the quantity produced or the sum of the average fixed and variables of s

Average variable cost - Total variable cost over the nth produced

Average fixed cost - Total fixed cost over real tity produced Marginal cost - The cost of producing prextra unit court which is equal to change in total costs over change in quantity produced

Types of not run cost curves

- Total cost curves
- Average cost curves
- Marginal cost curves

Key relationships between curves:

- The AC and MC curves are u-shaped because of the laws of diminishing marginal returns
- The AC and MC curves are opposite to the AP and MP curves
- The AC curve is above the MC curve when average costs are falling
- The AC curve is below the MC curve when average cost is rising
- Average cost and marginal cost are equal when average cost is constant

The long run average cost curve has a broad u-shape, and is said to be an 'envelope' for the short run average cost curves, each of which are tangential to the curve at their lowest point. Before the minimum efficient scale (the lowest level of output where long run average cost is minimised) the firm is achieving economies of scale. After the optimal level of output (the range of output over which long run average cost is lowest) firm is experiencing diseconomies of scale. Production points within the curve are attainable, whereas points below the curve are not.

Causes of shifts in long run average costs:

- Taxation
- Changes in technology
- Economies and diseconomies of scale (falls/rises in long run average costs)

Non-pecuniary factors influencing a workers decision to work include;

- Job satisfaction
- Location
- Friends and family
- Commuting

The supply curve for labour to a firm, industry or economy is upward sloping, because higher wage rates incentivise more workers to supply their work. The elasticity of supply of labour is a measure of the responsiveness of the quantity supplied to a change in the price of labour. It is calculated by the percentage change in quantity of labour supplied over the percentage change in wage rates. It is affected by the availability of suitable labour, the time period under consideration and the extent of underemployment and unemployment.

Substitution and income effects

Up to real wage rate OA, on increase in wages leads to an increase in the number of hours worked because the positive substitution effect of the wage rise autoweighs its megative income effect. At real wage rate rises above OB, an increase in wages leads to a fall in hours worked, because the negative income effect autweighs the positive substitution effect.



The supply of labour within an economy fluctuates due to changes in the size of the economically active population, the age at which people choose to retire, net migration levels, taxation, education and training, social trends and the power of trade unions. These all affect the participation rates of the population in the labour force.

There are two types of **labour immobility**; geographical immobility and occupational immobility. Geographical immobility is when workers cannot move between areas for work. This may be due to poor transport links or an inability to buy housing in a particular region. Occupational immobility is when the skills of a worker cannot be transferred from one occupation to another.

The wage rate of labour is determined by the demand end stant of labour and their relative elasticities. The equilibrium wage rate is where inel g all sevenue product meets supply. In an economy where labour is homogeneous, there is perfect knowledge, perfect mobility of labour, all workers and employers are prive taxors and there are no carriers which prevent changes to wage rates then all workers would be paid the same wage.

In reality, because labour is not homoger out wage rates differ. This can be die to age, sex, ethnic background, education and training, experience and the ability to perform tasks.

In a perfectively competitive labour marker there is a large number of small firms hiring a large number of individual workers. The demand for labour is downward sloping and the supply of labour is perfectly elastic. The firm will hire up to the point where marginal revenue product is equal to the marginal cost of labour.

An imperfectly competitive market exists when the firm is the monopsonist buyer of labour or the firm is faced with a monopoly supplier of labour (e.g. a trade union) A monopoly buyer of labour (monopsonist). A monopsonist will hire up to the point where MRP+MC, and is then likely to lower wage rates through exploiting their monopsonist power. Wage rates are likely to be lower than in a perfectly competitive labour market.

A monopoly seller of labour, such as a trade union, have collective bargaining power to influence wage rates. They attempt to fix minimum wage rates, resulting in a kinked supply curve. This should result in higher wages than in a perfectively competitive market, but may also lead to decreased employment. The power of trade unions is affected by the membership and militancy of the union, the elasticity of demand for labour and the profitability of the employer.

Government may intervene in the labour market to resolve labour market issues. Labour market issues include;

- Skills shortages, which can be geographically or occupationally
- Young people who do not have as much experience are less likely to be hired than older, more experience workers. Especially during times of financial crisis, youth unemployment is likely to rise significantly. Many young people are staying on in education for longer to improve their skills base, but this does have an impact on the size of the actively participating economy

The terms of trade can change due to;

- Changes in the exchange rate
- Inflation
- Changes in demand for imports and exports
- Changes in a countries productivity and productive potential
- Changes in incomes changing patterns of demand (e.g. if income rises the demand for holidays abroad may increase)

A trading bloc is a group of countries that have signed an agreement to reduce barriers to trade, either by reducing/eliminating tariffs, quotas and other protectionist measures. It is also known as a regional trading agreement.

A bilateral trade agreement is between two countries, whereas a plurilateral/multilateral trade agreement is between three or more countries.

Types of trading blocs and stages of economic integration;

- Preferential trading areas A preferential trading area is a group of countries that have signed a preferential trade agreement to lower or abolish some protectionist barriers between members
- Free trade areas A free trade area is a group of countries between which there is free trade and members may set their own external tariffs to non-members
- Custom unions

A custom unions is a group of countries between which there is free trade and a common external tariff. This external tariff can be implemented by either having member states harmonise their tariffs on imports or by imposing tariffs on re-exports

- Common markets

Common markets are custom unions where both labour and capital Byceffee movement within the area. This includes the free movement of factors of men of the area also common product standards and laws concerning the free not been of goods between members. There is likely to be a monetary union and common currency, reducing entainty due to fluctuating exchange rates

Economic unions Where the composities of member countries are as fully integrated economically as the different regions within a country. There is bein a liscal and monetary union, meaning that there are central bodies that have power over tax rates, government spending and government borrowing. Member countries may also share a single currency. Complete economic integration is associated with a political union

Advantages of trading blocs:

- Increased competition between firms in member countries may increase efficient and transfer of resources
- There will be static benefits if the net welfare gains from trade creation exceed the net welfare losses from trade diversion
- There may be dynamic gains from reducing international isolation, which can have benefits such as improving governance of a country
- Firms will benefit from lower transaction costs and economies of scale are they sell to a larger market

Disadvantages of trading blocs:

- They may distract governments from larger gains that could be made from joining the WTO
- The gains from trade tend be distributed unequally
- Many regional trade agreements only cover a small range of goods, so have minimal benefits
- Reduced national sovereignty

Trade creation occurs when a country moves from purchasing products from a high-cost producer to a lower-cost producer.

Dutch disease is where the exploitation of natural resources leads to a rise in exchange rates, thus decreasing international competitiveness of the economy.

Within a market or mixed economy there is unequal personal distribution of income (the distribution of total income of all individuals). This is because there are differences in;

- Earned income and levels of employment
- Financial and physical wealth (e.g. houses, monetary assets, physical assets and pensions)
- Inheritance
- Chance
- Household composition and demographics
- How government policies affect individuals (e.g. if the effects are regressive)
- Differences in competition and deadweight losses of welfare

Income inequalities can be measured using the Lorenz curve or Gini coefficient. The Lorenz curve is a graphical representation of the degree of income or wealth inequality and shows the relationship between cumulative income and percent of the population.

The Gini coefficient is a statistical measure of inequality and ranges from 0 to 1. The greater the number, the higher the level of inequality.

Absolute poverty occurs when individuals are not able to consume sufficient necessities to maintain life and is defined as having less than \$1.25 a day to live off.

Relative poverty occurs when a household earns less than 60% of the median income. Their income and living standards are lower than the average in the economy.

Poverty is caused by;

- Lack of employment
- Lack of human capital
- Lack of financial capital to fall back on
- Inheritance (e.g. the cycle of poverty)
- Dependency on others for income
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Dependency on others for income
Health problems
Intellectual and physical capital a table within a region
Poverty has many negative offects, primarily lowerstandards of living and inefficient allocation of resources (vorkes). The productive potential of the economy is greatly reduced.
Equity is defined as fairness and can be split into two kinds. Horizontal equity is the identical treatment of identical individuals and security is defined as fairness. treatment of identical individuals and groups in society in identical situations. Vertical equity is the different treatment of individuals or groups which are dissimilar in characteristics.

Within a society there may be absolute and relative poverty as well as a lack of horizontal equity. The government may use redistribution policies to decrease income inequalities, thus improving economic welfare.

The government may;

- Increase expenditure, such as on public goods like education to provide equal opportunities for all citizens as well as welfare payments
- Using a progressive tax system and reducing the use of regressive taxes. Progressive taxes take a greater proportion of high income earners income so that as income increase the marginal tax rate increases, where as regressive taxes take a higher proportion of low income earners income. Proportional taxes takes the same proportion of everyones income. However, increasing progressive taxes creates a disincentive for workers and for firms investing. This could lead to a capital flight out of the economy or tax evasion.
- Increasing minimum wage, although this may cause an excess of supply of labour leading to higher rates of unemployment
- Applying a maximum wage
- Forcing employers to provide free benefits to workers, such as sickness benefits, medical care and pensions
- Equal pay legislation
- Passing trade-union friendly legislation