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# **AS Economics Course Companion 2005**

# **Essential Glossary**

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#### Absolute advantage

Absolute advantage occurs when a country or region can create more of a product with the same factor inputs

#### Absolute poverty

Absolute poverty measures the number of people living below a certain income threshold or the number of households unable to afford certain basic goods and services.

#### Accelerator effect

Planned capital investment by private sector businesses is linked to the growth of demand for goods and services. When consumer or export demand is rising strongly, businesses may increase investment to expand their production capacity and meet the extra demand. This process is known as the accelerator effect. But the accelerator effect can work in the other direction! A slowdown in consumer demand can create excess capacity and may lead to a fall in planned investment demand.

# Ad valorem tax

An indirect tax based on a percentage of the sales price of a good or service. The best known example in the UK is Value Added Tax

# Adam Smith

One of the founding fathers of modern economics. His most famous work was the Wealth of Nations (1776) - a study of the progress of nations where people act according to their own self-interest - which improves the public good. Smith's discussion of the advantages of division of labour remains a potent idea in the economic literature.

#### Advertising

Developing consumer loyalty by establishing branded products can make successful entry into the market by new firms much more expensive. Advertising can cause an outward shift of the demand curve and also make demand less sensitive to changes in price

#### Ageing population

An increase in the average age of the population arising from an increase in life expectancy and a fall in the birth rate. In the long run, an ageing population has important implications for both the level and pattern of demand in the economy. There are also widespread consequences for government welfare spending (egg on state pensions) and the demand for health and other need services

#### Aggregate demand curve

The aggregate-demand curve shows the quantity of goods and services that households, firms, and the government want to buy at each price level.

# Aggregate supply

Aggregate supply (AS) measures the volume of goods and services produced within the economy at a given price level. In simple terms, aggregate supply represents the ability of an economy to produce goods and services either in the short-term or in the long-term. It tells us the quantity of real GDP that will be supplied at various price levels. The nature of this relationship will differ between the long run and the short run

## Allocative efficiency

Allocative efficiency occurs when the value that consumers place on a good or service (reflected in the price they are willing and able to pay) equals the cost of the resources used up in production. The technical condition required for allocative efficiency is that price = marginal cost. When this happens, total economic welfare is maximised.

#### Animal spirits

Animal spirits refers to the expectations of businesses, entrepreneurs and consumers. When business confidence is high, we expect to see a rise in planned capital investment at each rate of interest. If there is a downturn in business confidence, for example during a recession, then planned investment may fall and some capital investment projects may be scrapped even when interest rates are fairly low.

#### Anti-competitive behaviour

Anti-competitive practices are strategies operated by firms that are deliberately designed to limit the degree of competition in a market. Such actions can be taken by one firm in isolation or a number of firms engaged in some form of explicit or implicit collusion. Where firms are found to be colluding it would be seen to be against the public interest)

# **Anticipated inflation**

Anticipated inflation is expectations about future price rises which households & firms use when planning economic decisions

# **Asymmetric Information**

Asymmetric information occurs when somebody knows more than somebody else in the market. Such asymmetric information can make it difficult for the two people to do business together

# Automatic stabilisers

Automatic fiscal changes are changes in tax revenues and government spending arising automatically as the economy moves through different stages of the business cycle - for example a fall in the level of tax that the government takes out of the circular flow when the economy suffers a slowdown or a recession

#### **Average earnings**

Earnings are the total factor reward to labour. Average earnings comprise basic pay + wage drift (I.e. extra income from productivity related pay, overtime and other bonuses)

# Average product

Total output divided by the total units of labour employed

# Average rate of tax

The proportion of gross income paid in tax. With a progressive income tax system, the average rate of tax rises as income rises. This is because the marginal rate of tax goes up at certain income levels.

#### **Balance of payments**

The balance of payments (BOP) records all financial transactions between the UK and the Rest of the World. The BOP figures tell us about how much is being spent by British consumers and firms on imported goods and services, and how successful UK firms have been in exporting to other countries and markets.

# **Bank of England**

The Bank of England (www.bankofengland.co.uk) is charged with the task of 'maintaining the integrity and value of the currency'. The Bank pursues this objective through the use of monetary policy. Above all, this involves maintaining price stability, as defined by the inflation target set by the Government, as a precondition for achieving a wider goal of sustainable economic growth and high employment.

# Bank of England independence

Since 1997, the BoE has had operational independence in the setting of interest rates. The Bank aims to meet the Government's inflation target - currently 2.0 per cent for the consumer price index- by setting short-term interest rates. Interest rate decisions are taken by the Monetary Policy Committee (MPC) at their monthly meetings.

#### **Black market**

A black market (or shadow market) is an illegal market in which the normal market price is higher than a legally imposed price ceiling (or maximum price). Black markets develop where there is excess demand (or a shortage) for a commodity. Some consumers are prepared to pay higher prices in black markets in order to get the goods or services they want. When there is a shortage, higher prices act as a rationing device. Good examples of black markets include tickets for major sporting events, rock concerts and black markets for children's toys and designer products that are in scarce supply.

#### Bonds

The issue of debt is done by the central bank and involves selling debt to the bond and bill markets.

#### Brand

A distinctive product offering which is created by the use of a logo, symbol, name, design, packaging or combination thereof. The key in designing and building a brand is to differentiate it from competitors

#### Brand loyalty

Brand loyalty exists when consumers regard one particular brand of a product differently from competing products. Persuasive advertising seeks to reinforce and strengthen brand loyalty and thereby make the demand for the product more inelastic. Brand loyalty can be seen as a potential entry barrier in a market. It makes it more difficult and costly for a new product to break into the market when there are established suppliers enjoying a substantial degree of brand loyalty

#### Budget deficit

When the government is running a budget deficit, it means that in a given year, total government expenditure exceeds total tax revenue. As a result, the government has to borrow through the issue of debt such as Treasury Bills and long-term government

#### **Buffer stock schemes**

One way to smooth out the fluctuations in prices is for the government to operate price support schemes through the use of buffer stocks. Buffer stock schemes seek to stabilize the market price of agricultural products by buying up supplies of the product when harvests are plentiful and selling stocks of the product onto the market when supplies are low.

# **Business confidence**

The state of business confidence can be vital in determining whether to go ahead with an investment project. When confidence is strong then planned investment will rise.

#### **Business cycle**

The business, trade or economic cycle is when actual GDP tends to move up and down in a regular pattern causing booms and slumps (depressions), with recession and recovery as intermediate stages.

#### Capital

The term capital means investment in goods that are used to produce other goods in the future. Fixed capital includes machinery, plant and equipment, new technology, factories and buildings - all of which are capital goods designed to increase the productive potential of the economy in future years.

#### **Capital accumulation**

The process by which the stock of capital inputs is increased. For the capital stock to grow, gross investment needs to be higher than that required simply to replace worn out or obsolete machinery and technology. Net investment must be positive.

#### **Capital goods**

Producer or capital goods such as plant (factories) and machinery are useful not in themselves but for the goods and services they can help produce in the future.

# **Capital investment**

This is investment spending by companies on fixed capital goods such as new plant and equipment and buildings. Investment also includes spending on working capital such as stocks of finished goods and work in progress.

#### **Capitalist economy**

An economic system organised along capitalist lines uses market-determined prices to guide our choices about the production and distribution of goods; these economies generally have productive resources which are privately owned and managed. State intervention is kept to a minimum. One key role for the state is to maintain the rule of law and protect private property.

# Cartel

A producer cartel seeks to maximise joint profits in a market by engaging in price fixing. This can be achieved by controlling market output

# **Central banks**

Central banks occupy pivotal positions in the financial systems of their respective countries. In the UK for example, the Bank of England controls the supply of cash into the economic system and has the responsibility for setting official short term interest rates. Most leading central banks are now independent from government and have control over domestic monetary policy. Interest rates inside the Euro Area are now set by the European Central Bank.

#### **Ceteris paribus**

Ceteris paribus means all other things being equal. Economists recognise that many factors affect an economic variable. Egg demand is influenced by the price of the good, income, taste, etc. To simplify and enable analysis, economists isolate the relationship between two variables by assuming ceteris paribus - i.e. that all other influencing factors are held constant

# Choices

Because of scarcity, choices have to be made on a daily basis by individual consumers, firms and governments. Making a choice made normally involves a trade-off - in simple terms, choosing more of one thing means giving up something else in exchange. Because wants are unlimited but resources are finite, choice is an unavoidable issue in economics.

#### **Circular flow**

The circular flow of income is a diagrammatic representation of economic activity in a given time period. It identifies the main sectors in the economy (households, firms the government and overseas) and linkages between sectors e.g. wages government spending & interest payments

# Collusion

Collusion is any explicit or implicit agreement between suppliers in a market to avoid competition. Producers may decide to control market supply by entering into a collusive agreement and opt to fix prices rather than engage in competition. The main aim of this is to reduce market uncertainty and achieve a level of joint profits similar to that which might be achieved by a pure monopolist.

#### Common Agricultural Policy (CAP)

The Common Agricultural Policy has been in place now for over forty five years and is one of the most controversial aspects of the European Union. To many economists, the CAP is a grossly inefficient form of farm support and is in need of fundamental reform. To others, the CAP has done much to increase the efficiency of the European farm system and has met many of its original objectives.

#### **Comparative advantage**

Comparative advantage exists when a country has lower opportunity cost in the production of a good or service

# **Competition Commission**

The Competition Commission carries out inquiries into matters referred to it by the other UK competition authorities concerning monopolies, mergers and the economic regulation of utility companies. The Appeal Tribunals hear appeals against decisions of the Director General of Fair Trading and the regulators of utilities in respect of infringements concerning anti-competitive agreements and abuse of a dominant position.

#### **Competitive market**

A competitive market is one where no one firm has a dominant position and where the consumer has plenty of choice when buying goods or services. Firms in a competitive market each have a small market share. There are few barriers to the entry of new firms which allows new businesses to enter the market if they believe they can make sufficient profits

#### **Competitive supply**

Goods in competitive supply are alternative products a firm could make with its resources. Egg a farmer can plant potatoes or carrots. An electronics factory can produce VCRs or DVDs.

# **Complementary goods**

Two complements are said to be in joint demand. Examples include: fish and chips, DVD players and DVDs, iron ore and steel, success and hard work. A rise in the price of a complement to Good X should cause a fall in demand for X. For example an increase in the cost of flights from London Heathrow to New York would cause a decrease in the demand for hotel rooms in New York and also a fall in the demand for taxi services both in London and New York. A fall in the price of a complement to Good Y should cause an increase in demand for Good Y. For example a reduction in the market price of computers should lead to an increase in the demand for computer peripherals such as printers, scanners and software applications.

#### **Composite Demand**

Composite demand exists where goods or services have more than one use so that an increase in the demand for one product leads to a fall in supply of the other. The most commonly quoted example is that of milk which can be used for cheese, yoghurts, cream, butter and other products. If more milk is used for manufacturing cheese, ceteris paribus there is less available for butter.

#### **Consumer confidence**

The willingness of people to make major spending commitments depends on how confident they are about both their own financial circumstances, and also the general health of the economy. Consumer confidence is quite volatile from month to month. Some of the fluctuations are seasonal – but the underlying trend is what really matters.

#### **Consumer spending**

Consumers' expenditure on goods and services: This includes demand for consumer durables (e.g. washing machines, audio-visual equipment and motor vehicles & non-durable goods such as food and drinks which are "consumed" and must be repurchased).

#### **Consumer surplus**

Consumer surplus is a measure of the welfare that people gain from the consumption of goods and services, or a measure of the benefits they derive from the exchange of goods. Consumer surplus is the difference between the total amount that consumers are willing and able to pay for a good or service (indicated by the demand curve) and the total amount that they actually pay (the market price).

#### Consumption

Consumption is the use of a good or a service by consumers (households) to satisfy a want or a need

# **Contestable market**

A contestable market has no entry barriers - firms can enter or leave an industry costlessly. The threat of potential entry encourages imperfectly competitive to set price and output at or close to the competitive price and output

# **Corporate Social Responsibility**

There is growing interest in the concept of ethical businesses and corporate social responsibility where the traditional assumption of businesses driven solely by the profit motive is challenged and where businesses are encouraged to take account of their economic, social and environmental impacts.

#### **Corporation tax**

Corporation tax is paid on profits. If the government reduces the rate of corporation tax (or increases investment tax-allowances) there is a greater incentive to invest. Britain has relatively low rates of company taxation compared to other countries inside the EU. This is a factor that helps to explain why Britain has been a favoured venue for inward investment from overseas during the last decade.

# **Cost benefit analysis**

Governments face choices: do we build new hospitals or new or new schools, etc. Given limited resources how can government decide which projects to prioritise and build and which to reject? Cost Benefit Analysis (CBA) offers a systematic framework for measuring and evaluating the likely impact of public sector project, takes into account both private and external costs and benefits over the entire life of the project.

# **Cost push inflation**

Cost push inflation is caused by increases in costs of production e.g. wage increases, increased import price (imported inflation) or higher indirect taxation. Firms put up prices to maintain profit margins. Cost-push inflation can be illustrated by an inward shift of the short run aggregate supply curve. The fall in SRAS causes a contraction of real national output together with a rise in the general level of prices.

#### Costs

Costs are those expenses faced by a business when producing a good or service for a market. Every business faces costs - these must be recouped if a business is to make a profit from its activities. In the short run a firm will have fixed and variable costs of production

# **Cross price elasticity of demand**

Cross price elasticity (CPed) measures the responsiveness of demand for good X following a change in the price of good Y (a related good). With cross price elasticity we make an important distinction between substitute products and complementary goods and services

#### **Current account balance**

The current account balance comprises the balance of trade in goods and services plus net investment incomes from overseas assets. (This income in the form of interest, profits and dividends from external assets located outside the UK is also the difference between GDP and GNP). We also add in the net balance of private transfers between countries and government transfers (e.g. UK government payments to help fund the various spending programmes of the European Union).

#### **De-merit** goods

Merit goods are 'good' for you. In contrast, de-merit goods are thought to be 'bad' for you. Examples include alcohol, cigarettes and various drugs. The consumption of de-merit goods can lead to negative externalities which causes a fall in social welfare. The government normally seeks to reduce consumption of de-merit goods. Consumers may be unaware of the negative externalities that these goods create - they have imperfect information.

#### Deflation

Price deflation is when the rate of inflation becomes negative. I.e. the general price level is falling and the value of money is increasing. Some countries have experienced deflation in recent years – good examples include Japan and China. In Japan, the root cause of deflation was very slow economic growth and a high level of spare (excess) capacity in many industries that was driving prices lower.

#### Deindustrialisation

Long-term decline in the importance of the manufacturing sector in an economy. We can distinguish between relative decline (e.g. where the share of total national output accounted for by manufacturing declines) and absolute decline.

# Demand

Demand is defined as the quantity of a good or service that consumers are willing and able to buy at a given price in a given time period. Each of us has an individual demand for particular goods and services.

#### Demand curve

A demand curve shows the relationship between the price of an item and the quantity demanded over a period of time. For normal goods, more of a product will be demanded as the price falls. This is because at lower prices, consumers can afford to purchase more with their income. A fall in prices causes an increase in a consumers' real income. Secondly, a fall in price makes one good relatively cheaper than a substitute encouraging consumers to switch their demand in favour of the lower priced product.

# **Demand management**

Demand management occurs when the government attempts to influence the level and growth of AD hence the levels of national income, employment, rate of inflation, growth and the balance of payments position

#### **Demand-pull inflation**

Demand-pull inflation is likely when there is full employment of resources and aggregate demand is increasing at a time when SRAS is inelastic. Demand pull inflation is largely the result of AD being allowed to grow too fast compared to what the supply-side capacity can meet. The result is excess demand for goods and services and pressure on businesses to raise prices in order to increase their profit margins

#### Deregulation

De-regulation or liberalisation means the opening up of markets to greater competition. The aim of this is to increase market supply (driving prices down) and widen the range of choice available to consumers. The discipline of competition should also lead to greater cost efficiency from producers – who are keen to hold onto their existing market share. Good examples of deregulation to use include: urban bus transport, parcel delivery services, mortgage lending, telecommunications, and gas and electricity supply.

#### **Derived demand**

The demand for a product X might be strongly linked to the demand for a related product Y - giving rise to the idea of a derived demand. For example, the demand for coal is derived in part on the demand for fossil fuels to burn in the process of generating energy. Likewise the demand for steel is strongly linked to the demand for new vehicles and many other manufactured products, so that when an economy goes into a downturn or recession, so we would expect the demand for steel to decline likewise.

#### **Diminishing returns**

The Law of Diminishing Returns occurs because factors of production are not perfect substitutes for each other. Resources used in producing one type of product are not necessarily as efficient when switched to the production of another good or service. The law of diminishing returns lies at the heart of conventional production and cost theory.

#### **Direct taxation**

Direct taxation is levied on income, wealth and profit. Direct taxes include income tax, national insurance contributions, capital gains tax, and corporation tax.

# **Discouraged workers**

People who leave the active labour force - often because they have been structurally unemployed for a long time and have lost motivation to engage in active job search. The tax and benefit system may create disincentives for them to search and take jobs. The Labour Government's New Deal programme seeks to bring more of the discouraged workers back into the active labour supply in the economy.

#### **Discretionary fiscal policy**

Discretionary fiscal changes are deliberate changes in direct and indirect taxation and government spending – for example a decision by the government to increase total capital spending on the road building budget or increase the allocation of resources going direct into the NHS.

#### **Diseconomies of scale**

There are nearly always limits to the potential to achieve economies of scale. Indeed when a business expands beyond a certain size, average costs per unit may start to increase. This is known as diseconomies of scale. Diseconomies of scale arise mainly through problems of management. As a firm grows, management finds it more difficult to organize production efficiently. It is much easier to lose control of costs in a large organization than in a small business.

#### **Disposable income**

Disposable income measures income available for households to spend and is important when looking at the factors that determine consumer spending and saving. Personal disposable income = Gross UK Household income - Personal taxation + transfer payments

#### **Division of Labour**

Division of labour means the specialization of the functions and roles involved in making the separate parts of a product. It is closely tied to the standardization of production, the introduction and perfection of machinery, and the development of large-scale industry. As a result of mass-production techniques, total production is many times what it would be had each worker made the complete product. Problems created by the division of labour include job monotony, technological unemployment, and eventually chronic unemployment if the economy does not expand quickly enough to reabsorb the displaced labour.

#### **Economic boom**

A boom occurs when real national output is rising at a rate faster than the estimated trend rate of growth. In boom conditions, national output and employment are expanding and aggregate demand is high. Typically, businesses use a boom to raise their output and widen their profit margins by increasing prices for consumers.

#### **Economic growth**

Economic growth is best defined as a long-term expansion of the productive potential of the economy. Sustained growth should lead higher real living standards and rising employment. Short term growth is measured by the annual % change in real national output (real GDP).

#### **Economic recession**

A recession means a fall in the level of real national output (i.e. a period when the rate of growth is negative) leading to a contraction in employment, incomes and profits. The last recession in Britain lasted from the summer of 1990 through to the autumn of 1992. When real GDP reaches a low point, the economy has reached the trough – and with hope (and perhaps some luck!) a recovery is imminent.

#### **Economic recovery**

A recovery occurs when real national output picks up from the trough reached at the low point of the recession. The pace of recovery depends in part on how quickly AD starts to rise after the economic downturn. And, the extent to which producers raise output and rebuild their stock levels in anticipation of a rise in demand. The state of business confidence plays a key role here. Any recovery in production might be subdued if businesses anticipate that a recovery will be only temporary or weak in scale.

#### **Economic slowdown**

A slowdown occurs when the rate of growth decelerates – but national output is still rising. If the economy continues to grow without falling into outright recession, this is known as a soft-landing.

# **Economies of scale**

Economies of scale are of huge importance to many businesses - not least those that have to compete in international markets where cost competitiveness is vital. Both producers and consumers stand to gain from economies of scale. Businesses can bring down their average costs by producing on a larger scale. This opens up the possibility of them making bigger profit margins and also building a competitive advantage in their chosen markets. For consumers, lower costs per unit can be translated into a reduction in market prices which leads to a rise in their real purchasing power and a potential improvement in economic welfare (e.g. measured by the level of consumer surplus).

# **Effective demand**

Demand in economics must be effective. Only when a consumers' desire to buy a product is backed up by an ability to pay for it do we speak of demand. For example, many people would be willing to buy a luxury sports car, but their demand would not be effective if they did not have the financial means to do so. They must have sufficient real purchasing power.

#### Entrepreneur

An entrepreneur is an individual who seeks to supply products to a market for a rate of return (i.e. a profit). Entrepreneurs will usually invest their own financial capital in a business and take on the risks associated with a business investment. The reward to this risk-taking is the profit made from running the business. Many economists agree that entrepreneurs should be classed as specialised part of the factor input 'labour'.

#### **Entry barriers**

For a high level of profits to be maintained in the long run, a monopolist must successfully prevent the entry of new suppliers into a market. Barriers to entry are the mechanisms by which potential competitors are blocked. Monopolies can then enjoy higher profits in the long run as rivals have not diluted market share.

#### Equilibrium

Equilibrium means 'at rest' or 'a state of balance' - i.e. a situation where there is no tendency for change

#### **Euro Zone**

A term for the participating members of the European Single Currency. Twelve nations joined the new currency zone when it was established in January 1999.

#### **European Central Bank**

The European Central Bank (ECB) sets a common official rate of interest for the participating members of the single European currency. The ECB has an inflation target of 0-2%. It seeks to maintain the internal purchasing power of the Euro through the use of a Euro Area monetary policy

## Exchange rate

The exchange rate measures the external value of sterling in terms of how much of another currency it can buy. For example - how many dollars or Euros you can buy with £5000. The daily value of the currency is determined in the foreign exchange markets (FOREX) where billions of \$s of currencies are traded every hour.

# Exchange rate index

The Exchange Rate Index is a weighted index of sterling's value against a basket of international currencies. The weights used are determined by the proportion of trade between the UK and each country.

#### Expectations

Expectations of consumers and businesses can have a powerful effect on planned expenditure in the economy e.g. expected increases in consumer incomes, wealth or company profits encourage households and firms to spend more – boosting AD. Similarly, higher expected inflation encourages spending now before price increases come into effect - a short term boost to AD

#### **Exports**

Exports sold overseas are an inflow of demand (an injection) into the circular flow of income and therefore add to the demand for UK produced output.

# **External costs**

External costs are those costs faced by a third party for which no appropriate compensation is forthcoming. Identifying and then estimating a monetary value for air pollution is a difficult exercise - but one that is increasingly important for economists concerned with the impact of economic activity on our environment.

#### External economies of scale

External economies arise from the growing size of an industry. As the industry grows in size and there are more firms in the industry, these companies may enjoy lower average total costs for several reasons: Firms will be able to draw on a pool of skilled labour, trained by firms and government, thus reducing their own training and living costs.

# Externalities

Externalities are third party effects arising from production and consumption of goods and services for which no appropriate compensation is paid. Externalities occur in nearly every market and industry and can cause market failure if the price mechanism does not take into account the full social costs and benefits of production and consumption. Externalities occur outside of the market i.e. they affect economic agents not directly involved in the production and/or consumption of a particular good or service

## **Factor immobility**

Factor immobility occurs when a factor is unable to switch easily between different sectors of the economy

# **Financial economies**

Small firms often have to pay higher interest rates on loans since they are perceived by financial organizations to carry a higher level of risk. Firms therefore have to pay a risk premium on their loans. The smaller firm may find it more difficult to raise money through selling new shares than a larger firm.

#### **Finite resources**

There are only a finite number of workers, machines, acres of land and reserves of oil and other natural resources on the earth. Because resources are finite, we cannot produce an infinite number of goods and services. By producing more for an ever-increasing population, we are in danger of destroying the natural resources of the planet. This will have serious consequences for the long-term sustainability of economies throughout the world and potentially enormous implications for our living standards and the quality of life.

#### Firm

A firm is an organisation that uses factors of production (resources) to create goods and services egg public limited companies plcs

# **Fiscal expansion**

A fiscal expansion will cause an outward shift of AD. For example, the Government may choose to increase its expenditure e.g. financed by a higher budget deficit, - this directly increases AD

#### **Fiscal policy**

Fiscal policy involves the use of government spending, taxation and borrowing to influence both the pattern of economic activity and also the level and growth of aggregate demand, output and employment. It is important to realise that changes in fiscal policy affect both aggregate demand (AD) and aggregate supply (AS).

# **Fixed costs**

These costs relate to the fixed factors of production and do not vary directly with the level of output. Examples of fixed costs include: rent and business rates, the depreciation in the value of capital equipment (plant and machinery) due to age and marketing and advertising costs

#### Fixed exchange rate

In a fixed exchange rate system, the central bank acting on the government's behalf intervenes in the currency market so that the exchange rate stays close to an exchange rate target. When Britain joined the European Exchange Rate Mechanism in October 1990, we fixed sterling against other European currencies. The pound, for example, was permitted to vary against the German Mark by only 6% either side of a central target of DM2.95. Britain left the ERM in September 1992 when sterling came under sustained selling pressure, and the authorities could no longer justify very high interest rates to maintain the pound's value when the domestic economy was already suffering from a deep recession.

#### Floating exchange rate

The UK is currently operating with a floating exchange rate – where the currency's value is purely market determined and the Bank of England does not seek to intervene through buying and selling currencies in order to influence the pound's value.

#### Foreign exchange market

Currencies are traded around the world in a truly global market with London easily the largest FOREX market in the world. The value of most currencies is determined within the foreign exchange markets by the forces of demand and supply.

# Franchises

Franchises and licences give a firm the right to operate in a market - and are usually open to renewal every few years. Examples include: Commercial television and radio licences, local taxi route licences and the franchise holders to run regional rail services

#### Free goods

Not all goods have an opportunity cost. Free goods are not scarce and no cost is involved when consuming them

#### Free Market Economy

In a free market economic system, governments take the view that markets work, assume a laissez faire (let alone) approach, step back, and allow the forces of supply and demand to set prices and allocate resources. Government intervention is required mainly to prevent or correct market failure through for example enforcing anti-monopoly legislation (i.e. preventing abuses of market power), enforcing private property rights, and redistributing income through the tax and benefit system etc

#### Free rider problem

Public goods are non-excludable. Once the product is provided, other consumers cannot be excluded from benefiting from the good. This means some consumers may avoid payment and become free riders i.e. benefit without contributing to the cost of provision. If sufficient consumers decide to take a free-ride then the product will not be provided through the market. Consider the case of the provision of an army of traffic wardens and safety signs on roads. One person's benefit from these services is not unique - other motorists benefit from the service as well - but they cannot be stopped and asked to pay for the benefits they derive.

## Free trade

Free trade exists when there are few barriers to international trade between countries. This allows resources to be allocated without the intervention of import tariffs, quotas, and other forms of import controls. Free trade based on comparative advantage can under certain conditions lead to a rise in economic welfare. Countries can specialise in the production of goods and services in which they have a comparative advantage (lower opportunity cost).

#### **Frictional unemployment**

This type of unemployment reflects job turnover in the labour market. Even when there are vacancies it takes time to search and find new employment and workers will remain frictionally unemployed. Improving the flow of information in the labour market is one way of reducing the scale of frictional unemployment. See also structural and cyclical unemployment

# Full employment

Full employment occurs when there is no cyclical unemployment. Some workers will be frictionally or structurally unemployed even at the full employment level of GDP

# **Futures market**

A futures market is a commodity exchange where contracts for the future delivery of grain, livestock, and precious metals are bought and sold. Speculation in futures serves to protect both the producers and the users of the commodities from unpredictable price fluctuations.

# **General Government Spending**

This is government spending on state-provided goods and services including public and merit goods. Transfer payments in the form of welfare benefits (e.g. pensions, job-seekers allowance) are not included in general government spending because they are not a payment to a factor of production for output produced. They are simply a transfer from one group within the economy (i.e. people in work paying income taxes) to another group (i.e. pensioners drawing their state pension having retired from the labour force, or families on very low incomes).

#### **Geographical immobility**

People may also experience geographical immobility – meaning that there are barriers to them moving from one area to another to find work

# Gini coefficient

The Gini coefficient is a statistical measure of income distribution. A Gini coefficient of 0 means perfect equality; 1 total inequality

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#### Globalisation

Globalisation is the increased worldwide integration and interdependence of those economies that trade. For example, transnational firms locate the production and assembly of goods in different locations across the world.

# **Golden Rule**

The golden rule was introduced into fiscal policy by Gordon Brown when he became Chancellor in 1997. The rule states that government borrowing over the course of the economic cycle should be used to finance government investment spending (so called public sector asset accumulation). Current spending on goods and services together with spending on welfare payments should be financed by current tax revenues.

# **Government failure**

Even with good intentions governments seldom get their policy application correct. They can tax, control and regulate but the eventual outcome may be a deepening of the market failure or even worse a new failure may arise. Government failure may range from the trivial, when intervention is merely ineffective, but where harm is restricted to the cost of resources used up and wasted by the intervention, to cases where intervention produces new and more serious problems that did not exist before. The consequences of this can take many years to reverse.

# **Government paternalism**

Some economists argue that the "nanny state" is when the government imposes its own preferences on consumers. For example, when the government subsidies university tuition fees and taxes cigarettes it is saying 'we know better than you what is good for you'.

#### Gross capital investment

Gross investment spending includes an estimate for capital depreciation since some investment is needed to replace technologically obsolete and worn out plant and machinery. Providing that net investment is positive, businesses are expanding their capital stock giving them a higher productive capacity and therefore meet a higher level of demand in the future.

#### Gross domestic product

Gross Domestic Product (GDP) measures the value of output produced within the domestic boundaries of the UK over a given time period. GDP includes the output of the many foreign owned firms that are located in the UK following the high levels of foreign direct investment in the UK economy over many years.

#### Gross national product

Gross National Product (GNP) measures the final value of output or expenditure by UK owned factors of production whether they are located in the UK or overseas.

#### **Health rationing**

Health rationing occurs when the demand for health care services outstrips the available resources leading to waiting lists and delays for health treatment. Rationing may take place in various ways - for example health service practitioners may ration the resources to patients on the basis of clinical need. In private sector markets, health care will be available on the basis of willingness and ability to pay

#### **Horizontal equity**

Horizontal equity requires equals to be treated equally e.g. people in the same income group should be taxed at the same rate

#### Horizontal integration

Where two firms join at the same stage of production in one industry. For example two car manufacturers may decide to merge, or a leading bank successfully takes-over another bank. The world's biggest contested takeover took place in 2000 when British business Vodafone mounted a successful bid for German telecoms firm Mannesmann

#### House price inflation

The annual percentage change in house prices. There are two commonly quoted measures of house price inflation - from the Halifax (Britain's largest mortgage lender) and the Nationwide Building Society

# **Household Savings Ratio**

The household savings ratio is measured as the level of savings as a percentage of disposable income. In recent years there has been a fall in the savings ratio in part because consumer borrowing has reached record levels, fuelled in part by the rapid acceleration in house prices.

# Human capital

Human capital is the stock of skills, experience and qualifications held by the labour force that can be brought into the production function. New Growth theorists believe there is a strong link between investment in human capital and long-term growth.

## Human development index

A composite measure of human development published by the United Nations. The HDI is comprised of components which measure how far each indicator has moved from the minimum value towards a desirable level or maximum deemed attainable. The components of the HDI are usually income, life expectancy and education. Wealth and political rights can also be added into the overall calculations.

#### Human resource management

HRM describes improvements to procedures involving recruitment, training, promotion, retention and support of faculty and staff. This becomes critical to a business when the skilled workers it needs are in short supply. Recruitment and retention of the most productive and effective employees makes a sizeable difference to corporate performance in the long run (as does the flexibility to fire those at the opposite extreme!)

#### Hyperinflation

Hyperinflation is extremely rare. Recent examples include Argentina, Brazil, Georgia and Turkey (where inflation reached 70% in 1999). The classic example of hyperinflation was of course the rampant inflation in Weimar Germany between 1921 and 1923. When hyperinflation occurs, the value of money becomes worthless and people lose all confidence in money both as a store of value and also as a medium of exchange.

#### Imperfect information

Consumers and producers require complete information if they are to make efficient choices. In perfectly competitive markets we assume that all agents in the market have perfect information about the availability of goods and services and also the prices charged by suppliers. Consumers can make purchasing decisions on the basis of full and free information on the products that they are buying. In reality, all of us experience information deficits which can lead to a misallocation of resources. Information failure occurs when people have inaccurate, incomplete, uncertain or misunderstood data and so make potentially 'wrong' choices. Consumers can never be expected to have a full-informed view about the products they are faced with in each and every market. Searching for information is time consuming and carries an obvious opportunity cost. Likewise, producers do not have full information about the products and prices being charged by their competitors.

#### Import penetration

Import penetration is a measure of the proportion (or percentage) of domestic demand in a particular market or industry that is taken up by overseas output. For example a rising share of coal used in energy generation comes from overseas suppliers. Import penetration is also very high in electronic goods industries, textiles and clothing.

# Import quota

A quota is a physical limit imposed upon the amount of a good that can be imported

#### Imports

Imports are a withdrawal of demand (a leakage) from the circular flow of income and spending. Goods and services come into the economy for us to consume and enjoy - but there is a flow of money out of the economic system to pay for them.

# Incentives

Incentives matter enormously in our study of microeconomics, markets and market failure. For competitive markets to work efficiently economic agents (i.e. consumers and producers) must respond to appropriate price signals in the market. Government intervention in markets can often change the incentives that both producers and consumers face - for example a change in relative prices brought about by the introduction of government subsidies and taxation.

#### Income

Income represents a flow of earnings from using factors of production to generate an output of goods and services

## Income effect

Income effects refer to changes in the real purchasing power of consumers. For example when the average price level falls, a given amount of money income can now buy more goods and services. Consumer demand for normal goods will increase, but decrease for inferior goods. Changes in real price levels affect the real incomes of households and firms.

#### Income elasticity of demand

Income elasticity of demand measures the relationship between a change in quantity demanded and a change in real income. The formula for income elasticity is: percentage change in quantity demanded divided by the percentage change in income

#### Indirect tax

An indirect tax is imposed on producers (suppliers) by the government. Examples include excise duties on cigarettes, alcohol and fuel and also value added tax. Taxes are levied by the government for a number of reasons - among them as part of a strategy to curb pollution and improve the environment. A tax increases the costs of a business causing an inward shift in the supply curve. The vertical distance between the pre-tax and the post-tax supply curve shows the tax per unit. With an indirect tax, the supplier may be able to pass on some or all of this tax onto the consumer through a higher price. This is known as shifting the burden of the tax and the ability of businesses to do this depends on the price elasticity of demand and supply.

# Indirect taxation

Indirect taxes are taxes on spending – such as excise duties on fuel, cigarettes and alcohol and Value Added Tax (VAT) on many different goods and services

#### **Inferior goods**

For normal products, more is demanded as income rises, and less as income falls. Most products are like this but there are exceptions called inferior products. They are often cheaper poorer quality substitutes for some other good. Examples include black-and-white television sets, cigarettes, white bread and several other basic foods. With a higher income a consumer can switch from the cheaper substitute to the more expensive, but preferred alternative. As a result, less of the inferior product is demanded at higher levels of income. Inferior goods have a negative income elasticity of demand.

#### **Infinite wants**

Human beings want better food; housing; transport, education and health services. They demand the latest digital technology, more meals out at restaurants, more frequent overseas travel, better cars, cheaper food and a wider range of cosmetic health care treatments. Whilst our economic resources are limited, human needs and wants are infinite. Indeed the development of society can be described as the uncovering of new wants and needs - which producers attempt to supply by using the available factors of production.

#### Inflation

Inflation is a sustained rise in the general price level over time. The rate of inflation is the percentage change in a given price index over the last twelve months

# Inflation rate

The rate of inflation is measured by the annual percentage change in the level of consumer prices. The British Government has set an inflation target of 2% using the consumer price index (CPI). It is the job of the Bank of England to set interest rates so that AD is controlled and the inflation target is reached. Since the Bank of England was made independent, inflation has stayed comfortably within target range. Indeed Britain has one of the lowest rates of inflation inside the EU.

#### Inflation target

The Government's target for inflation is 2% for inflation measured by the consumer price index (CPI). It is the job of the Bank of England to set interest rates so that AD is controlled and the inflation target is reached. Since the Bank of England was made independent inflation has stayed within target range - indeed the economy has enjoyed a sustained period of low inflation.

#### Informal economy

The informal economy refers to undeclared economic activity

#### Interest elasticity of demand

The change in demand for a good or service brought about by a change in interest rates. The demand for many products is sensitive to interest rate changes - notably sectors of consumer demand linked to the strength of the housing market. Goods and services bought on credit might also be expected to have a relatively high interest elasticity of demand.

# Interest rate transmission mechanism

The transmission mechanism between the Bank changing rates and it having an effect on AgD, national output employment and inflation is complex and involves time lags. Interest changes affect household consumption and savings decisions and corporate output and capital investment decisions.

#### **Interest rates**

There is no unique rate of interest in the economy. For example we distinguish between savings rates and borrowing rates. However interest rates tend to move in the same direction. For example if the Bank of England cuts the base rate of interest then we expect to see lower mortgage rates and lower rates on savings accounts with Banks and Building Societies.

# **Internal expansion**

Firms can generate higher sales and increased market share by expanding their operations and exploiting possible economies of scale. The alternative is to grow externally through mergers and takeovers. See also integration of firms

#### Invisible hand

The 18th Century economist Adam Smith - one of the founding fathers of modern economics, described how the invisible or hidden hand of the market operated in a competitive market through the pursuit of self-interest to allocate resources in society's best interest. This remains the central view of all free-market economists, i.e. those who believe in the virtues of a free-market economy with minimal government intervention.

#### **Joint Supply**

Joint supply describes a situation where an increase or decrease in the supply of one good leads to an increase or decrease in supply of another. For example an expansion in the volume of beef production will lead to a rising market supply of beef hides. A contraction in supply of lamb will reduce the supply of wool

#### Keynes

A British economist who is most noted for his work The General Theory of Employment, Interest, and Money, published 1936. The General Theory formed the foundation of Keynesian economics and created the modern study of macroeconomics.

# Keynesian consumption theory

John Maynard Keynes developed a theory of consumption that focused primarily on the importance of people's disposable income in determining their spending. A rise in real income gives people greater financial resources to spend or save. The rate at which consumers increase demand as income rises is called the marginal propensity to consume.

#### **Knowledge-based industries**

Knowledge based industries are essentially service industries. Examples include communication, finance, and personal services. However hi-tech manufacturing also comes under this umbrella term. This would include pharmaceuticals, computer hardware and software industries and TV and other communication equipment.

#### Labour market incentives

Cuts in income tax might be used to improve incentives for people to seek work and also as a strategy to boost labour productivity. Some economists argue that welfare benefit reforms are more important than tax cuts in improving incentives – in particular to create a "wedge" or gap between the incomes of those people in work and those who are in voluntary unemployment.

#### Land

Land is the natural resources available for production. Some nations are endowed with natural resources and specialise in the extraction and production of these resources – for example – the development of the North Sea Oil and Gas in Britain and Norway.

#### Latent demand

Latent demand exists when there is willingness to purchase a good or service, but where the consumer lacks the real purchasing power to be able to afford the product. Latent demand is affected by persuasive advertising - where the producer is seeking to influence consumer tastes and preferences.

#### Law of demand

The law of demand is that there is an inverse relationship between the price of a good and demand. As prices fall we see an expansion of demand. If price rises there should be a contraction of demand.

#### Long run

The long run in economics is defined as a period of time in which all factor inputs can be changed. The firm can therefore alter the scale of production. If as a result of such an expansion, the firm experiences a fall in long run average total cost, it is experiencing economies of scale. Conversely, if average total cost rises as the firm expands, diseconomies of scale are happening.

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# Long run aggregate supply

Long run aggregate supply (LRAS) shows total planned output when both prices and average wage rates can change – it is a measure of a country's potential output and the concept is linked strongly to that of the production possibility frontier

# MO (narrow money)

M0 (Narrow money) - comprises notes and coins in circulation banks' operational balances at the Bank of England. Over 99% of M0 is made up of notes and coins as cash is used mainly as a medium of exchange. Most economists believe that changes in M0 have little effect on total national output and inflation. At best M0 is seen as a co-incident indicator of consumer spending and retail sales. M0 reflects changes in the economic cycle, but does not cause them.

#### M4 (broad money)

M4 (Broad money) includes deposits saved with banks and building societies and money created by lending in the form of loans and overdrafts. M4 = M0 plus sight (current accounts) and time deposits (savings accounts). When a bank or another lender grants a loan to a customer, bank liabilities and assets raise by the same amount and so does the money supply.

# Macroeconomic equilibrium

Macro-economic equilibrium is established when AD intersects with SRAS. The output and the general price level in the economy will tend to adjust towards this equilibrium position. If the general price level is too high for example, there will be an excess supply of output and producers will experience an increase in unsold stocks. This is a signal to cut back on production to avoid an excessive level of inventories. If the price level is below equilibrium, there will be excess demand in the short run leading to a run down of stocks – a signal for producers to expand output.

# Macroeconomic objectives

Government macroeconomic objectives are low and stable inflation & unemployment, high & sustainable economic growth, a satisfactory balance of payments and an acceptable distribution of income

#### Macroeconomics

Macroeconomics is more concerned with the economy as a whole. For example, how the levels of output, inflation, employment, growth, imports and exports are determined.

#### **Managerial economies**

A large manufacturer can employ specialist staff to supervise production, thus cutting managerial costs per unit. Greater control of the workforce should raise labour productivity. Specialist administrative equipment, like networked systems of computers, can be used profitably in large firms. The cost of transmitting business information is reduced and employees can communicate more effectively.

#### Marginal cost

Marginal cost is defined as the change in total costs resulting from increasing output by one unit. Marginal costs relate to variable costs only. Changes in fixed costs in the short run affect total costs, but not marginal costs

# **Marginal product**

Marginal product (MP) = the change in total output from adding one extra unit of labour

# Marginal propensity to consume

The marginal propensity to consume is the proportion of each extra pound spent by consumers. If the MPC = 0.8 consumers spend 80p of every extra pound received – they save or use for tax or import payments the remaining 20p

# Marginal propensity to import

Consumers in Britain have a high marginal propensity to import goods and services so that when their real incomes are rising and their spending increases, so too does the demand for imports. Unless there is a corresponding increase in UK exports overseas, then the balance of trade in goods and services will move towards heavier deficit.

#### Marginal propensity to save

Marginal propensity to save (mps) = the change in saving divided by the change in income. The MPS is a component of the function used to calculate the national income multiplier. If the marginal propensity to save rises, then (ceteris paribus) we expect to see a rise in the value of the multiplier

#### Marginal utility

Marginal Utility is the change in total utility or satisfaction resulting from the consumption of one more unit of a good. The hypothesis of diminishing marginal utility states that as the quantity of a good consumed increases, the marginal utility falls

#### Market demand

Market demand is the sum of the individual demand for a product from each consumer in the market. If more people enter the market, then demand at each price level will rise. For example, market demand for mobile phones has expanded rapidly over the last few years as call costs have fallen. Eventually though the market demand for mobile phones will reach saturation point - every product has a life-cycle.

#### Market dominance

Market dominance occurs when a firm acquires monopoly power

#### Market equilibrium

Equilibrium means a state of equality between demand and supply. Without a shift in demand and/or supply there will be no change in market price. Prices where demand and supply are out of balance are termed points of disequilibrium. Changes in the conditions of demand or supply will shift the demand or supply curves. This will cause changes in the equilibrium price and quantity in the market.

# Market failure

Market failure occurs when freely functioning markets, operating without government intervention, fail to deliver an efficient or optimal allocation of resources - Therefore - economic and social welfare may not be maximised leading to a loss of allocative and productive efficiency. When this happens there is market failure - In reality - all markets fail at some time or other. Market failure exists when the competitive outcome of markets is not efficient from the point of view of the economy as a whole. This is usually because the benefits that the market confers on individuals or firms carrying out a particular activity diverge from the benefits to society as a whole

#### Market power

Market power refers to the ability of a firm to influence or control the terms and condition on which goods are bought and sold. Monopolies can influence price by varying their output because consumers have limited choice of rival products

# Market structure

Markets can be characterised according to how many suppliers are seeking the demand of consumers. The spectrum of competition ranges from competitive markets where there are many sellers, each of whom has little or no control over the market price - to a pure monopoly where a market or an industry is dominated by one single supplier. In many sectors of the economy we see an oligopoly - where a just a few producers dominate the majority of the market. In a duopoly two firms dominate the market.

#### Market supply

Market supply is the total amount of an item producers are willing and able to sell at different prices, over a given period of time egg one month. Industry, a market supply curve is the horizontal summation of all each individual firm's supply curves

# Marketable pollution permits

A marketable pollution permit gives a firm the right to emit a given quantity of waste / pollution in a given time period. The quantity of pollution permits issued is determined by the regulators / government as they aim curb pollution to a socially optimum level. These permits can be bought and sold.

# Marketing economies

A large-scale manufacturer can buy raw materials and other inputs (components) in bulk and thereby negotiate lower prices than the small manufacturer. When a major buyer in a market has substantial buying power, this is termed a monopsony. For example, the major hotel chains can buy the consumables used in hotel rooms at much lower cost than individual consumers. The motor industry can use its monopsony power when negotiating the supply of tyres, in-car entertainment systems and other component parts. The average cost of selling each unit produced can also be lower, because advertising and marketing costs can be spread over a large output sold and specialist salesmen/buyers are employed to maximise sales.

#### Maximum price

The Government can set a legally imposed maximum price in a market that suppliers cannot exceed - in an attempt to prevent the market price from rising above a certain level. To be effective a maximum price has to be set below the free market price. One example of a maximum price might be for foodstuffs when a shortage of essential foodstuffs threatens a very large rise in the free market price. Other examples include rent controls on properties for example the complex system of rent controls still in place in Manhattan in the United States.

#### Means-tested benefits

Means testing allows government welfare benefits to go to those in greatest need - i.e. to those families / households with the lowest incomes. This would help the welfare system to target help for those households on the lowest incomes. However means tested benefits are often unpopular with the recipients. And if benefits are withdrawn at a high rate as earned income increases, there is a risk that households on low incomes will be stuck in the poverty trap and will opt to remain out of work and in receipt of welfare payments.

#### Mergers

Mergers take place when two businesses agree to merge their operations and become one single company. There are different types of integration between firms - see also horizontal and vertical integration

# Merit goods

Merit Goods are those goods and services that the government feels that people will under-consume, and which ought to be subsidised or provided free at the point of use. Both the public and private sector provide merit goods & services. Consumption of merit goods is widely believed to generate positive externality effects - where the social benefit from consumption exceeds the private benefit. A merit good is a product that society values and judges that everyone should have regardless of whether an individual wants them. In this sense, the government (or state) is acting paternally in providing merit goods and services. They believe that individuals may not act in their own best interests in part because of imperfect information about the benefits that can be derived.

#### Microeconomics

Microeconomics concerns itself with the study of economics and decisions taken at the level of the individual firm, industry or consumer / household. Microeconomics is also concerned with how prices are determined in markets; how much people get paid in different occupations; how we decide what to buy; the effects of government intervention on the prices and quantities of individual goods and services and the efficiency with which our scarce resources are used.

#### **Minimum price**

A minimum price is a legally imposed price floor below which the normal market price cannot fall. To be effective the minimum price has to be set above the normal equilibrium price. A good example of this is minimum wage legislation currently in force in the UK. The National Minimum Wage was introduced by the Labour Government in April 1999. The main adult rate for the minimum wage in the UK is £4.80 per hour.

#### Mixed economy

The price mechanism is the only allocative mechanism solving the economic problem in a free market economy. However, most modern economies are mixed economies, comprising not only a market sector, but also a nonmarket sector, where the government uses the planning mechanism to provide goods and services such as police, roads and health.

#### Monetary policy

Monetary policy now involves changes in interest rates to influence the rate of growth of AD. A tightening of monetary policy involves higher interest rates to reduce consumer and investment spending. Monetary Policy is now in the hand of the Bank of England –it decides on interest rates each month

# Monetary policy asymmetry

Fluctuations in interest rates do not have a uniform impact on the economy. Some industries are more affected by base rate changes than others (for example exporters and industries connected to the housing market). And, some regions of the British economy are also more exposed (sensitive) to a change in the direction of interest rates.

#### Money

Money is defined as any asset that is acceptable as a medium of exchange in payment for goods and services

#### Monopoly

A pure monopolist is a single seller of a product in a given market or industry. In simple terms this means the firm has a market share of 100%. The working definition of a monopolistic market relates to any firm with greater than 25% of the industries' total sales. Monopolies can develop in a variety of ways:

# Mortgage equity withdrawal

Mortgage equity withdrawal (also known as housing equity loans) is new borrowing secured on the value of housing that is not invested in the housing stock. In other words, home-owners can take out housing equity loans to finance major items of spending and add that loan to their existing mortgage. Some people use housing equity loans to pay-off unsecured loans for example on their credit cards. The acceleration in UK house prices in the last few years has seen a re-emergence of housing equity withdrawal.

#### **Multiplier effect**

An initial change in aggregate demand can have a much greater final impact on the level of equilibrium national income. This is commonly known as the multiplier effect and it comes about because injections of demand into the circular flow of income stimulate further rounds of spending – in other words "one person's spending is another's income" – and this can lead to a much bigger effect on equilibrium output and employment.

## National debt

The accumulated government debt created through government borrowing when it is running a budget deficit. If the government manages to achieve a budget surplus, some of the national debt might be repaid

# National income

National income refers to money measurements of economic activity in a country over a period of time

#### Natural monopoly

A natural monopoly exists when there is great scope for economies of scale to be exploited over a very large range of output. Indeed the scale of production that achieves productive efficiency may be a high percentage of the total market demand for the product. Natural monopolies are associated with industries where there is a high ratio of fixed to variable costs. For example, the fixed costs of establishing a national distribution network for a product might be enormous, but the marginal (variable) cost of supplying extra units of output may be very small. In this case, the average total cost will continue to decline as the scale of production increase, because fixed (or overhead) costs are being spread over higher and higher levels of output.

#### Natural rate of unemployment

The natural rate of unemployment is the unemployment rate at the full employment level of national income where there is no cyclical unemployment but inevitable frictionally and structurally unemployed

# **Needs and wants**

Humans have many different types of wants and needs egg: economic, social and psychological. In economics the focus is on studying how material wants and needs are satisfied: A need is something essential for survival egg food satisfies hungry people. A want is something desirable but not essential to survival egg cola quenches thirst. Household (consumer) wants and needs are satisfied (met) by consuming (using) products i.e. goods or services

#### **Negative externalities**

Negative externalities occur when production and/or consumption impose external costs on third parties outside of the market for which no appropriate compensation is paid

#### **Net Exports**

Net exports (X-M) reflect the net effect of international trade on the level of aggregate demand. When net exports are positive, there is a trade surplus (adding to AD); when net exports are negative, there is a trade deficit (reducing AD).

#### Net investment

Economic activity results in capital consumption – machines become worn out and obsolescent. Net investment only occurs after such depreciation of fixed assets is taken into account. Net investment = gross investment - depreciation

# New classical economics

A branch of economics that stresses the importance of competitive markets as a way of improving economic welfare. New classical economists believe that markets clear rapidly - i.e. excess demand in a market will cause higher prices; excess supply causes a fall in prices. They believe that government economic policy should allow the free operation of markets and that intervention should be limited to allowing private sector markets to work efficiently

#### New paradigm

New paradigm economists believe that improvements to the supply-side performance of the economy are changing the traditional trade-offs between the main macro-economic objectives. They argue that the diffusion of information technology is producing large increases in productivity and that these efficiency gains will allow stronger economic growth and rising employment without risking a sharp acceleration in inflation. The term new paradigm is most widely used in the United States but has also been applied to the strong performance of the UK economy in recent years. Essentially the new paradigm view believes that the supply-side of the economy can grow sufficiently quickly for policy makers to keep aggregate demand at a high level.

#### Normal goods

Normal goods have a positive income elasticity of demand so as consumers' income rises, so more is demanded at each price level. Normal necessities have an income elasticity of demand of between 0 and +1. Normal luxuries have an income elasticity of demand > +1 i.e. the demand rises more than proportionate to a change in income

#### Normative statements

Normative statements express an opinion about what ought to be. They are subjective statements rather than objective statements - i.e. they carry value judgments. For example, the level of duty on petrol is too unfair and unfairly penalizes motorists. Or the government should increase the national minimum wage to  $\pm 6$  per hour in order to reduce relative poverty. A third example - the UK government should join the Single European Currency as soon as possible.

#### **Objectives**

Objectives are the aims of government policy whereas instruments are the means by which these aims might be achieved and targets are often thought to be intermediate aims – linked closely to the final objective.

# **Occupational immobility**

Occupational immobility occurs when there are barriers to the mobility of factors of production between different sectors of the economy which leads to these factors remaining unemployed, or being used in ways that are not economically efficient. Some capital inputs are occupationally mobile – a computer can be put to use in many different industries. Commercial buildings can be altered to provide a base for many businesses. However some units of capital are specific to the industry they have been designed for. Labour often experiences occupational immobility. For example, workers made redundant in the sheet metal industry or in heavy engineering may find it difficult to gain re-employment in the near term. They may have job-specific skills that are not necessarily needed in growing industries. This implies that there is a mismatch between the skills on offer from the unemployed and those required by employers looking for extra workers. This is also called structural unemployment and explains why there is a core of workers in the UK who find it difficult to find paid work. Clearly this leads to a waste of scarce resources and represents market failure.

# **Office of Fair Trading**

The Office of Fair Trading plays a key role in protecting the economic welfare of consumers, and in helping to enforce UK competition policy. Its main roles are to identify and put right trading practices which are against the consumer's interests and to investigate anti-competitive practices and abuses of market power and bringing about market structures, which encourage competitive behaviour. The Office of Fair Trading reports on allegations of anti-competitive practices including claims of collusive behaviour where firms are thought to be engaging in price-fixing.

#### Oligopoly

An oligopoly is a market dominated by a few large suppliers. The degree of market concentration is high with typically the leading five firms taking over sixty per cent of total market sales.

#### **Open economy**

Britain is a highly 'open economy'. This means that a large and rising share of our output of goods and services is tied to trade with other countries around the world. Britain is for example the world's second largest exporter of services (behind the United States) and a significant percentage of our total manufacturing output and employment is directly or indirectly dependent on our performance in international markets, many of which are now intensely competitive.

#### **Opportunity cost**

There is a well known saying in economics that "there is no such thing as a free lunch". Even if we are not asked to pay a price for consuming a good or a service, economic resources are used up in the production of it and there must be an opportunity cost involved - i.e. the next best alternative that might have been produced using those resources. Opportunity cost measures the cost of any choice in terms of the next best alternative foregone.

#### Organic growth

Firms can generate higher sales and increased market share by expanding their operations and exploiting possible economies of scale. This is internal rather than external growth (i.e. organic growth) and therefore tends to be a slower means of expansion contrasted to mergers and acquisitions

#### **Ostentatious consumption**

Some goods are luxurious items where satisfaction comes from knowing both the price of the good and being able to flaunt consumption of it to other people! A higher market price may also be regarded as a reflection of product quality and some consumers on high incomes are prepared to pay this for the "snob value effect". Examples might include perfumes, designer clothes, and top of the range cars. Goods of ostentatious consumption have a high-income elasticity of demand. That is, demand rises more than proportionately to an increase in consumers' income. With products of ostentatious consumption, the demand curve may slope upwards from left to right - more is bought at higher prices.

# Output gap

The output gap is an important concept in macroeconomics. It is defined as the difference between the actual level of national output and its potential level and is usually expressed as a percentage of the level of potential output.

#### **Output quotas**

Sometimes producers may deliberately limit supply through output quotas. This is designed to reduce market supply and force the price upwards. An example of this is the fishing quota introduced by the EU Commission as part of the Common Fisheries Policy. In part the quota is designed to protect fish stocks from permanent depletion.

#### **Pareto efficiency**

A Pareto efficient allocation of resources occurs when resources cannot be readjusted to make one consumer better off without making another worse off

#### **Participation rate**

Participation rate measures the percentage of the working age population who are active members of the labour force (i.e. either in paid employment or searching for work). In recent years for example, the participation rate for female workers has increased significantly. In part this is because of the rapid expansion of tertiary sector employment in the British economy.

#### Patents

Patents are government enforced property rights to prevent the entry of rivals. They are generally valid for 17-20 years and give the owner an exclusive right to prevent others from using patented products, inventions, or processes

#### Per capita income

Total income divided by the size of the population. Real GNP per capita is used as a benchmark for comparing living standards between countries. However real GNP per head has limitations as a measure of living standards.

#### **Policy trade-offs**

There are potential trade-offs between objectives imply that choices may have to be made in the short and medium run - for example possible trade-offs between unemployment and inflation and between economic growth and inflation.

# Polluter pays principle

The government may choose to intervene in the market to ensure that the firms and consumers who create negative externalities include them when making their decisions egg first parties are forced to internalise external costs & benefits through indirect taxes

# **Pollution permits**

Some countries have moved toward market-based incentives to achieve pollution reduction. This new approach involves the creation of a limited volume of pollution rights, distributed among firms that pollute, and allows them to be traded in a secondary market. The intent is to encourage lowest-cost pollution reduction measures to be utilized, in exchange for revenues from selling surplus pollution rights. Companies that are efficient at cutting pollution will have spare permits that they can then sell to other businesses. As long as the total bank (or stock) of permits is reduced year by year by the government or an agency, cuts in total pollution can be achieved most efficiently.

#### **Pollution taxes**

One common approach to adjust for externalities is to tax those who create negative externalities. This is sometimes known as "making the polluter pay". Introducing a tax increases the private cost of consumption or production and ought to reduce demand and output for the good that is creating the externality. Taxes send a signal to polluters that our environment is valuable and is worth protecting.

#### **Positive externalities**

Positive externalities exist when third parties benefit from the spill-over effects of production/consumption e.g. the social returns from investment in education & training or the positive benefits from health care and medical research

#### **Positive statements**

Positive statements are objective statements that can be tested or rejected by referring to the available evidence. Positive economics deals with objective explanation. For example: A rise in consumer incomes will lead to a rise in the demand for new cars. Or, a fall in the exchange rate will lead to an increase in exports overseas. Or if the government decides to raise the tax (duty) on beer, this will lead to a fall in profits of the major brewers.

#### **Potential output**

Potential output measures the productive capacity of the economy in a given time period. This is determined by the stock of available factor inputs and their productivity. In the long run, an increase in potential output comes about from an increase in the economically active labour supply and an increase in labour productivity. See also supply-side economic policies.

#### **Poverty trap**

The poverty trap affects people on low incomes. It creates a disincentive to look for work or work longer hours because of the effects of the tax and benefits system. For example, a worker might be given the opportunity to earn an extra £50 a week by working ten additional hours. This boost to his/her gross income is reduced by an increase in income tax and national insurance contributions. The individual may also lose some income-related state benefits. The combined effects of this might be to take away over 70% of a rise in income, leaving little in the way of extra net or disposable income.

# **Predatory pricing**

Firms may adopt predatory pricing policies by lowering prices to a level that would force any new entrants to operate at a loss. A high profile case came to a head in 1999 when the Office of Fair Trading found News International guilty of adopting predatory pricing policies in a bid to reduce competition in the market for broadsheet newspapers.

# Price elasticity of demand

Price elasticity of demand measures the responsiveness of demand for a product following a change in its own price. The formula for calculating the co-efficient of elasticity of demand is: Percentage change in quantity demanded divided by percentage change in price. If the demand increased by 10% due to a fall in a good's own price of 5%, the price elasticity of demand for a product would be 2. Since changes in price and quantity nearly always move in opposite directions, economists usually do not bother to put in the minus sign. We are more concerned with the co-efficient of price elasticity of demand.

# Price elasticity of supply

Price elasticity of supply (Pes) measures the relationship between change in quantity supplied and a change in price. When supply is elastic, producers can increase production without a rise in cost or a time delay. When supply is inelastic, firms find it hard to change their production levels in a given time period. The formula for price elasticity of supply is: Percentage change in quantity supplied divided by the Percentage change in price

# **Price mechanism**

The price mechanism is the means by which decisions of consumers and businesses interact to determine the allocation of resources between different goods and services.

# **Price stability**

Price stability can be defined as a situation where the rate of change in the general price level is small enough for it not to affect in any meaningful way the long term decisions of businesses and consumers. When inflation is stable at say 1% or 2%, then expectations of inflation will be fairly stable too and day-to-day, neither businesses nor individuals have little need to factor inflation into their calculations. Price stability does not necessarily mean zero inflation.

# **Primary Sector**

This involves extraction of natural resources e.g. agriculture, forestry, fishing, quarrying, and mining

# **Private Finance Initiative**

The Conservatives introduced the Private Finance Initiative in 1992 as a way of funding expensive infrastructure developments without running up debts. Rather than borrowing to fund new projects, John Major's government entered into a long-term leasing agreement with private contractors. Under a PFI, companies borrow the cash to build and run new hospitals, schools and prisons for a period of up to 60 years. So far, about 150 PFI contracts have been signed, worth more than £40bn, with more in the pipeline.

# **Private Finance Initiative (PFI)**

The need for extra finance of merit goods has brought to the top of the political agenda the debate about public versus private sector funding. The current Labour government is committed to using public private partnerships (PPPs) to inject extra finance for capital spending in education, health and transport. The private finance initiative gives the private sector responsibility for building and managing projects like roads and hospitals in return for a yearly fee. PPPs have been used by Labour to build large numbers of schools, hospitals and roads. More controversially, it is also the chosen route for part-privatising the London Underground and the air traffic control system

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#### Privatisation

Over the last twenty-five years, many former state-owned businesses have been privatised – i.e. they have transferred from the public sector into the private sector. Examples in Britain include British Gas, British Telecom, British Airways, British Steel, British Aerospace, the regional water companies, the main electricity generators and distributors, and the Railways. British Rail was privatised in 1994 but the failure of Railtrack led to the creation of Network Rail, a 'not for profit' company in 2002. The Labour Government has continued to privatise or part-privatise other parts of the UK public sector since it came to power in 1997. Privatization is designed to break up state monopolies and create more competition. The government also created utility regulators who have imposed price controls on many of these industries and who are now over-seeing the move towards competitive markets in areas such as gas and electricity supply and telecommunications.

# **Producer subsidy**

Subsidies represent payments by the government to suppliers that have the effect of reducing their costs and encouraging them to increase output. The effect of a subsidy is to increase supply and therefore reduce the market equilibrium price. The subsidy causes the firm's supply curve to shift to the right. The total amount spent on the subsidy is equal to the subsidy per unit multiplied by total output.

# **Producer surplus**

Producer surplus is a measure of producer welfare. It is measured as the difference between what producers are willing and able to supply a good for and the price they actually receive. The level of producer surplus is shown by the area above the supply curve and below the market price.

#### **Product markets**

Product markets refer to markets in which all kinds of commodities are traded, for example the market for airline travel; for new cars; for pharmaceutical products and the market for financial services such as banking and occupational pensions.

#### Production

Production involves in nearly all cases, using up scarce resources. Production can take place at various levels - ranging from primary industries in which basic resources are extracted through manufacturing and construction (secondary industries) to tertiary and quaternary industries (the service sector).Production refers to the output of goods and services produced within a market in a given time period

#### Production possibility frontier

A production possibility frontier (PPF) or boundary shows the combinations of two or more goods and services that can be produced using all available factor resources efficiently. A PPF is normally drawn on a diagram as concave to the origin because the extra output resulting from allocating more resources to one particular good may fall. I.e. as we move down the PPF, as more resources are allocated towards Good Y, the extra output gets smaller - and more of Good X has to be given up in order to produce the extra output of Good Y. This is known as the principle of diminishing returns.

# **Productive efficiency**

The output of productive efficiency occurs when a business in a given market or industry reaches the lowest point of its average cost curve. Output is being produced at minimum cost per unit implying an efficient use of scarce resources and a high level of factor productivity

#### Productivity

When economists and government ministers talk about productivity they are referring to how productive labour is. But productivity is also about other inputs into production. So, for example, a company could increase productivity by investing in new capital machinery which embodies the latest technological progress, and which reduces the number of workers required to produce the same amount of output.

# Profits

Profits are made when total revenue exceeds total cost. Total profit = total revenue - total cost. Profit per unit supplied = price = average total cost. The standard assumption is that private sector businesses seek to make the highest profit possible from operating in a market. There are times when this assumption can be dropped - but the profit seeking firm or business remains a powerful component of standard economic analysis.

# **Progressive taxation**

With a progressive tax, the marginal rate of tax rises as income rises. I.e. as people earn more income, the rate of tax on each extra pound earned goes up. This causes a rise in the average rate of tax (the percentage of income paid in tax).

# **Property rights**

Property rights confer legal control or ownership of a good. For markets to operate efficiently, property rights must be clearly defined and protected - perhaps through government legislation and regulation. If an asset is unowned no one has an economic incentive to protect it from abuse. This can lead to what is known as the Tragedy of the Commons i.e. the over use of common land, fish stocks etc which leads to long term permanent damage to the stock of natural resources.

# **Proportional taxation**

With a proportional tax, the marginal rate of tax is constant. For example, we might have an income tax system that applied a standard rate of tax of 25% across all income levels. If the marginal rate of tax is constant, the average rate of tax will also be constant.

# **Public bad**

Public bads would include environmental damage and global warming which affects everyone – no one is excluded from the disbenefits of others polluting economic activity

# **Public goods**

The characteristics of pure public goods are the opposite of private goods: Non-excludability: The benefits of public goods cannot be confined to only those who have paid for it. In this sense, non-payers can enjoy the benefits of consumption for no financial cost. Non-rivalry in consumption: Consumption of a public good by one person does not reduce the availability of a good to others - we all consume the same amount of public goods even though our tastes for these goods (and therefore our valuation of the benefit we derive from them) might differ

# Quasi public goods

A quasi-public good is a near-public good i.e. it has many but not all the characteristics of a public good. Quasi public goods are: (i) Semi-non-rival: up to a point extra consumers using a park, beach or road do not reduce the amount of the product available to other consumers. Eventually additional consumers reduce the benefits to other users. (ii) Semi-non-excludable: it is possible but often difficult or expensive to exclude non-paying consumers. E.g. fencing a park or beach and charging an entrance fee; building toll booths to charge for road usage on congested routes

# **Quaternary Sector**

The quaternary sector is involved with information processing e.g. education, research and development, administration, and financial services such as accountancy

#### **Rational consumers**

Our working assumption is that consumers make choices about what to consume based on the objective of maximising their own welfare. They have a limited income (i.e. a limited budget) and they seek to allocate their funds in a way that improves their own standard of living. Of course in reality consumers rarely operate in a perfectly informed and rational way. Very often, decisions about which products to purchase and consume are actually based on imperfect information which can lead to a loss of welfare not only for consumers themselves but society as a whole. As consumers we have all made poor choices about which products to buy

#### **Rationing function of prices**

Prices serve to ration scarce resources when demand in a market outstrips supply. When there is a shortage of a product, the price is bid up - leaving only those with a willingness and ability to buy with the effective demand necessary to purchase the product. Be it the demand for cup final tickets or the demand for a rare antique the market price acts a rationing device to equate demand with supply. Rationing by other means might be regarded as inefficient. Consumers with the highest income stand to have most influence on what is eventually produced. This can cause difficulties when there is a high degree of inequality in the distribution of income and wealth.

#### **Real income**

Real income measures the quantity of goods and services that a consumer can afford to buy. An increase in real income will cause the demand curve to shift to the right for normal goods. See also the Keynesian theory of consumption for the link between real disposable income and household demand. See also real national income (or real GDP) and the standard of living.

#### **Real interest rate**

The real rate of interest is often important to businesses and consumers when making spending and saving decisions. The real rate of return on savings, for example, is the money rate of interest minus the rate of inflation. So if a saver is receiving a money rate of interest of 6% on his savings, but price inflation is running at 3% per year, the real rate of return on these savings is only + 3%.

#### **Regressive taxation**

With a regressive tax, the rate of tax falls as incomes rise – I.e. the average rate of tax is lower for people of higher incomes. In the UK, most examples of regressive taxes come from excise duties of items of spending such as cigarettes and alcohol. There is well-documented evidence that the heavy excise duty applied on tobacco has quite a regressive impact on the distribution of income in the UK.

#### **Relative poverty**

Relative poverty measures the extent to which a household's financial resources falls below an average income threshold for the economy. Although living standards and real incomes have grown because of higher employment and sustained economic growth over recent years, the gains in income and wealth have been unevenly distributed across the population.

#### **Research and development**

Research and development spending is heaviest in those industries that require a leading edge in the development of new projects and processes. And in industries and markets where there are high level gains from acquiring patents.

#### **Resource allocation**

Resource allocation refers to a given use of land, labour, capital and entrepreneurs those results in particular amounts of goods and services being produced. A reallocation of resources means some factors of production are switched from one use to another i.e. into different industries and occupations resulting in different amounts of goods and services produced.

#### **Retail price index**

The Retail Price Index (RPI) is a measure of domestic inflation. The ONS defines the RPI as "an average measure of change in the prices of goods and services bought for the purpose of consumption by the vast majority of households in the UK"

# Revenue

Revenue means the income firms receive from the sale of output

# **Risk-bearing economies**

A large firm sells in more markets and has a wider product range than a smaller company. The rapid expansion of multi product businesses is part of a process of diversification. This helps spread business risks so that if one market does badly the company has other markets to sell into.

# Saving

Saving represents a decision to postpone consumption by saving out of current disposable income. Savings provide a financial safety net for households and allow them to finance their regular spending even when income flows are volatile

#### Scarcity

Scarce means limited. Our resources of land labour capital and enterprise are finite. There is only a limited amount of resources available to produce the unlimited amount of goods and services we desire

#### Seasonal unemployment

This is a kind of unemployment which occurs regularly because of seasonal changes in the demand for certain kinds of labour. Good examples include construction, hotels and leisure and agriculture. See also structural unemployment and real wage unemployment as alternative explanations for unemployment

#### **Secondary Sector**

This involves the production of goods in the economy, i.e. transforming materials produced by the primary sector e.g. energy manufacturing and the construction industry

#### Self-sufficiency

Self-sufficiency is where people try to meet their own wants and needs without producing a surplus to trade.

#### Short run

The short run is a period of time when there is at least one fixed factor of production. This is usually the capital input such as plant and machinery and the stock of building and technology. In the short run, output expands when more variable factors (labour, raw materials and components) are employed.

# Short run aggregate supply

Short run aggregate supply (SRAS) shows total planned output when prices in the economy can change but the prices and productivity of all factor inputs e.g. wage rates and the state of technology are assumed to be held constant.

# Signaling function of prices

Prices have a signaling function - if prices are rising because of stronger demand from consumers, this is a signal to suppliers to expand output to meet the higher demand. In this sense consumer preferences send information to producers about the changing nature of our needs and wants. When demand is strong, higher market prices act as an incentive to raise output (production) because the supplier stands to make a higher profit.

#### Single market

The creation of a single market within the European Union - that seeks to encourage free movement of goods, services, financial capital and people.

# Social efficiency

The socially efficient level of output and or consumption occurs when social marginal benefit = social marginal cost. At this point we maximise social economic welfare. The existence of negative and positive externalities means that the private optimum level of consumption or production often differs from the social optimum leading to some form of market failure and a loss of social welfare.

# Specialization

Self-sufficiency is where people try to meet their own wants and needs without producing a surplus to trade. Specialisation is when individuals, regions or countries concentrate on making one product to create a surplus to be traded

## Speculative demand

The demand for a product can also be affected by speculative demand in the marketplace. Here, potential buyers are interested not just in the satisfaction they may get from consuming the product, but also the potential rise in market price leading to a capital gain or profit. When prices are rising, speculative demand may grow, adding to the upward pressure on prices. The speculative demand for housing and for shares (also known as equities) might come into this category.

# Stakeholder conflict

Stakeholder conflict occurs when different stakeholders have different objectives. Firms have to choose between maximising one objective and satisfactorily meeting several stakeholder objectives, so called satisficing

# Stakeholders

Stakeholders are groups who have an interest in the activity of a business e.g. shareholders, managers, employees, suppliers, customers, government and local communities. Different stakeholders have different objectives e.g. owners want maximum profits, customers low prices and workers high wages. Stakeholder conflict ensues. In plcs ownership and control are separate. Owners seek profits; managers may seek sales maximisation as these increase bonuses.

# Standard of living

The standard of living refers to the average amount of GDP for each person in a country i.e. per capita real GDP. It is found by dividing real GDP by the size of the population

#### Stocks

The change in stocks measures changes in the value of unsold inventories in a given time period. When aggregate demand is high and running ahead of current production, the value of stocks held by businesses tends to fall. This is known as de-stocking. Conversely when demand falls, business might be left with an unplanned increase in unsold output leading to a rise in stocks. Changes in stocks are normally a good leading indicator of where the economy is likely to head in the next six months

# Structural unemployment

This type of unemployment exists even when there are job vacancies, due to a mismatch between the skills of the registered unemployed and those required by employers. People made redundant in one sector of the economy cannot immediately take up jobs in other sectors

#### Substitute goods

Substitutes are goods in competitive demand and act as replacements for another product. For example, a rise in the price of Esso petrol (other factors held constant) should cause a substitution effect away from Esso towards competing brands. A fall in the monthly rental charges of cable companies or Vodafone mobile phones might cause a decrease in the demand for British Telecom services. Consumers will tend over time to switch to the cheaper brand or service provider. When it is easy to switch, consumer demand will be sensitive to price changes (see the section on price elasticity of demand)

#### Substitute in production

A substitute in production is a product that could have been produced using the same resources. Take the example of barley. An increase in the price of wheat makes wheat growing more attractive. The pursuit of the profit motive may cause farmers to use land to grow wheat rather than barley.

# Supply

Supply is the quantity of a good or service that a producer is willing and able to supply onto the market at a given price in a given time period. The basic law of supply is that as the market price of a commodity rises, so producers expand their supply onto the market.

#### Supply curve

A supply curve shows a relationship between price and quantity a firm is willing and able to sell. If the price of the good varies, we move along a supply curve. A price rise will usually cause an expansion of supply. If the market price falls there would be a contraction of supply in the market. Producers are responding to price signals when making their output decisions.

#### Supply shocks

Aggregate supply shocks might occur when there is a sudden rise in oil prices or other essential inputs or the invention and diffusion of a new technology

#### Supply-side policies

Supply-side economic policies are mainly micro-economic policies designed to improve the supply-side potential of an economy, make markets and industries operate more efficiently and thereby contribute to a faster rate of growth of real national output. Most governments now accept that an improved supply-side performance is the key to achieving sustained economic growth without a rise in inflation. But supply-side reform on its own is not enough to achieve this growth. There must also be a high enough level of aggregate demand so that the productive capacity of an economy is actually brought into play.

#### Sustainable development

Sustainable development means not using up resources faster than the Earth can replenish them. "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Brundtland Report and also involves the elimination of poverty in ways that do not damage the environment for future generations.

# Sustainable investment rule

One of the two main fiscal rules introduced by Gordon Brown as Labour Chancellor. The sustainable investment rule is that public sector debt as a percentage of GDP should be maintained at a stable and prudent level over the course of the economic cycle. The target is for a debt ratio of 40% of GDP (or less)

# Tariff

A tariff is a tax on the value of imports and remains the most common form of trade protection in the world economy today despite numerous attempts by the World Trade Organization (WTO) to encourage a reduction in average tariff levels between countries.

#### **Taxable income**

Taxable income is that part of earned income on which income tax is levied. For an individual taxable income = gross income (minus) the tax-free personal tax allowance. The government normally increases the value of income tax free allowances each year to avoid the effects of inflation in dragging people into paying higher taxes

#### **Technical efficiency**

Technical Efficiency = production of goods and services using the minimum amount of resources

#### **Tertiary Sector**

The tertiary sector provided services such as banking, finance, insurance, retail, education and travel and tourism

# **Time lags**

Changes to government policy (e.g. changes in direct taxation, a cut in interest rates or a rise in investment tax allowances) operate with uncertain time lags. They take time to work their way through the circular flow of income and spending and through to final objectives such as GDP growth and inflation.

# **Total Revenue**

Total Revenue (TR) refers to the amount of money received by a firm from selling a given level of output and is found by multiplying price (P) by output i.e. number of units sold (TR)

#### Trade

Trade is the exchange of goods or services. Trade improves consumer choice and total welfare. Individual have different skills. Regions or countries have different factor endowments egg climate, skilled labour force, and natural resources vary between nations. Therefore individuals, regions and countries are better placed in the production of certain goods than others

# Trade in goods

Trade in goods includes exports and imports of oil and other energy products, manufactured goods, foodstuffs, raw materials and components. Until recently this was known as visible trade – i.e. exporting and importing of tangible products. Since 1986 the net balance of trade in goods has been in deficit. And as the following chart shows, the trade deficit in goods has increased enormously in the last few years, breaking £47 billion in 2003 and forecast to surge over £50 billion in 2004.

# **Trade in services**

Trade in services includes the exporting and importing of intangible products – for example, Banking and Finance, Insurance, Shipping, Air Travel, Tourism and Consultancy. Britain has a strong trade base in services with over thirty per cent of total export earnings come from services

#### Trade Off

Economic choices almost always involve deciding between more of one product for less of another. A trade off involves a sacrifice, an exchange, a giving up X for Y

## **Transfer payments**

Transfer payments are best described as government welfare payments made available through the social security system including the Jobseekers' Allowance, Child Benefit, the basic State Pension, Housing Benefit, Income Support and the Working Families Tax Credit. These transfer payments are not included in the national income accounts because they are not a payment for output produced directly by a factor of production.

# **Trend growth**

The trend rate of growth is the long run average growth rate for a country over a period of time. Measuring the trend requires a long-run series of macroeconomic data in order to identify the different stages of the economic cycle and then calculate average growth rates from peak to peak or trough to trough.

#### Unanticipated inflation

Unanticipated inflation occurs when actual and anticipated inflation diverge causing a misallocation of resources

#### Unemployment

Officially the unemployed are people who are registered with the government as willing and able to work at the going wage rate but who cannot find suitable employment despite an active search for work

# **Unemployment trap**

The unemployment trap occurs when workers calculate that because of lost benefits and extra tax they are no better off working than if remain outside the employed labour force

# Unit labour costs

Unit labour costs are defined as wage costs adjusted for the level of productivity. For example a rise in unit labour costs might be brought about by firms agreeing to pay higher wages or a fall in the level of worker productivity. If unit wage costs rise, this will eventually feed through into higher prices (this is known as an example of "cost-push inflation")

# Value added

Value added is the difference between inputs and outputs egg if a firm spends  $\pm 500$  making a good (inputs) and sells its product (output) for  $\pm 750$ , then value added is  $\pm 250$ 

#### Value of money

The value of money refers to the amount of goods and services £1 can buy and is inversely proportionate to the rate of inflation. Inflation reduces the value of money. When prices rise, the value of money falls.

#### Variable costs

Variable costs vary directly with output. I.e. as production rises, a firm will face higher total variable costs because it needs to purchase extra resources to achieve an expansion of supply. Common examples of variable costs for a business include the costs of raw materials, labour costs and consumables.

# **Vertical equity**

Vertical equity requires unequal treatment of unequals to promote greater fairness e.g. higher income groups taxed at higher rates

#### **Vertical integration**

Where a firm develops market dominance by integrating with different stages of production in the industry, e.g. by buying its suppliers or controlling the main retail outlets. A good example is the oil industry where many of the leading companies are both producers and refiners of crude oil. Forward vertical integration occurs when a business merges with another business further forward in the supply chain. Backward vertical integration occurs when a firm merges with another business at a previous stage of the supply chain

#### Vertical long run aggregate supply curve

In the long run we assume that aggregate supply is independent of the price level. As a result we draw the long run aggregate supply curve as vertical. In drawing the LRAS as vertical, we are saying that there is a maximum level of physical output that the economy can produce. Neo-classical economists view the LRAS curve as being perfectly inelastic at a level of output where actual GDP has achieved its potential.

#### Wage price spiral

Demand-pull inflation can lead to cost-push inflation if wages follow prices higher. For example a booming economy might see a rise in inflation from 3% to 5% due to an excess of AD. Workers will seek to negotiate higher wages to protect their real incomes – there is a danger that this will trigger a wage-price spiral that then requires deflationary economic policies such as higher interest rates or an increase in direct taxation.

# Wealth

Wealth is a stock of assets that generates a flow of income and can be held in a variety of forms by individuals, firms and also the nation as a whole:

# Wealth effect

A rise in house prices or the value of shares increases consumers' wealth and allow an increase in borrowing to finance consumption increasing AD. In contrast, a fall in the value of share prices will lead to a decline in household financial wealth and a fall in consumer demand

# Welfare to work

Welfare to Work is the Labour government's flagship programme for getting people off state benefits and into work. The programme includes the New Deal scheme targeted at increasing the employment prospects for the long-term unemployed.

# Willingness to pay

Willingness to pay is the maximum price a consumer is prepared pay to obtain a product rather than forego consumption and is shown by the demand curve.

# Workforce

The workforce is sometimes called the whole economy labour supply i.e. the total number of people able available and willing to participate in paid employment: the employed labour force plus those registered as unemployed and actively looking for new work.

# Working Capital

Working capital refers to stocks of finished and semi-finished goods (or components) that will be either consumed in the near or will be made into finished consumer goods. Another term for stocks is inventories.