Glossary

abnormal profit Arises when total revenue of a firm is greater than its total costs; alternatively when average revenue is greater than average cost, or price is greater than average cost.

absolute advantage Refers to the ability of a country to produce a good using fewer resources than another country, in other words, the ability of a certain amount of resources in a country to produce more than the same resources can produce in another country.

absolute poverty The inability of an individual or a family to afford a basic standard of goods and services, where this standard is absolute and unchanging over time; it is defined in relation to a nationally or internationally determined *poverty line*, which determines the minimum income that can sustain a family in terms of its basic needs.

abuse of market power Occurs when firms engage in activities that restrict competition; see *market power*.

actual growth In the context of the production possibilities (*PPC*) model, it is growth that occurs due to reduction of unemployment or improvement in efficiency of resource use, resulting in a movement of a point inside the *PPC* to a point closer to the *PPC* in the northeast direction.

Adam Smith (1723–1790) a Scottish philosopher often referred to as the 'Father of economics, best known for his idea that the self-interested behavior of decision-makers without government intervention results in competitive markets leading to a more efficient use of resources and increased output; see *laissez faire*.

administrative barriers Trade protection measures taking the form of administrative procedures that countries may use to prevent the free flow of imports into a country; may include customs procedures involving inspections and valuation, controls on packaging, and others. Often considered to be a kind of 'hidden' trade protection.

adverse selection A type of asymmetric information where one party has more information than the other party about the quality of the product being sold. If the seller has more information, such as when selling a used car, the buyer will reduce demand. If the buyer has more information, such as regarding one's health condition when buying health insurance, the seller will reduce supply. The result in both cases is underallocation of resources to the good or service.

aggregate demand The total quantity of goods and services that all buyers in an economy (consumers, firms, the government and foreigners) want to buy over a particular time period, at different possible price levels, *ceteris paribus.*

aggregate demand curve A curve used in macroeconomics showing the relationship between the total amount of real output demanded by the four components (consumers, firms, government, foreigners) and the economy's price level over a particular time period, *ceteris paribus*.

aggregate supply The total quantity of goods and services produced in an economy over a particular time period, at different price levels, *ceteris paribus.*

allocative efficiency An allocation of resources that results in producing the combination and quantity of goods and services mostly preferred by consumers. The condition for allocative efficiency is given by $MSB = MSC$ (marginal social benefit = marginal social cost or $P = MC$ (price is equal to marginal cost); alternatively it is when *social surplus* is maximum.

allocative inefficiency The absence of *allocative efficiency*; when $MSB \neq MSC$ (or $P \neq MC$).

anchoring Part of *behavioural economics*, involves the use of irrelevant information to make decisions, which often occurs due to its being the first piece of information that the consumer happens to come across.

anti-dumping An argument that justifies trade protection policies: if a country's trading partner is suspected of practising dumping (selling a good in international markets at a price below the cost of producing it), then the country should have the right to impose trade protection measures (tariffs or quotas) to limit imports of the dumped good; dumping is illegal according to international trade rules.

appreciation (of a currency) An increase in the value of a currency in the context of a floating exchange rate system or managed exchange rate system (compare with *revaluation*, which refers to an increase in currency value in the context of a fixed or pegged exchange rate system).

appropriate technology Technologies that are well-suited to a country's particular economic, geographical, ecological and climate conditions. Often used in connection with labour-abundant developing countries that require labour-intensive (as opposed to capital-intensive) technologies.

asymmetric information A type of market failure where buyers and sellers do not have equal access to information, usually resulting in an underallocation of resources to the production of goods and services, as parties to a transaction with less access to information try to protect themselves against the consequences of the information asymmetry.

automatic stabilisers Factors that automatically, without any action by government authorities, work toward stabilising the economy by reducing the short-term fluctuations of the business cycle. Two important automatic stabilisers are progressive income taxes and unemployment benefits.

availability A term from *behavioural economics*, refers to use of information that is most recently available, which people tend to rely on more heavily, though there is no reason that this information is any more reliable than previously available information.

average costs Costs per unit of output, or the cost of each unit of output on average. They are calculated by dividing total cost by the number of units of output produced.

average revenue Revenue per unit of output sold, calculated by dividing total revenue by the number of units of output produced.

average tax rate Tax paid divided by total income, expressed as a percentage (i.e. tax paid divided by total income multiplied by 100).

balance of payments A record (usually for a year) of all transactions between the residents of a country and the residents of all other countries, showing all payments received from other countries (credits), and all payments made to other countries (debits).

balance of trade in goods Part of the balance of payments, it is the value of exports of goods minus the value of imports of goods over a specific period of time (usually a year).

balance of trade in services Part of the balance of payments, it is the value of exports of services minus the value of imports of services over a specific period of time (usually a year).

barriers to entry Anything that can prevent a firm from entering an industry and beginning production, as a result limiting the degree of competition in the industry.

base rate See *minimum lending rate*.

behavioural economics A relatively new branch of economics strongly influenced mainly by psychology, but also by sociology and neuroscience based on the idea that human behaviour is far more complex than the assumptions of *rational consumer choice*.

biases A terms from *behavioural economics*, it is a term from psychology that refers to systematic errors in thinking or evaluating; examples include *rules of thumb*, *anchoring*, *framing*, *availability*.

bilateral trade agreement Any trade agreement (or agreement to lower international trade barriers) involving two trading partners, usually two countries. It may also involve a trade agreement between one country and another group of countries when this groups acts as a single unit (such as the European Union). May be contrasted with *regional trade agreement* and *multilateral trade agreement*.

bounded rationality Part of *behavioural economics*, it is the idea that consumers are rational only within limits, as consumer rationality is limited by consumers' insufficient information, the costliness of obtaining information, and the limitations of the human mind to process large amounts of information.

bounded self-control Part of *behavioural economics*, it is the idea that people in reality exercise self-control only within limits, lacking the self-control required of them to make rational decisions.

bounded selfishness Part of *behavioural economics*, it is the idea that people are selfish only within limits; the assumption of self-interested behaviour of the rational consumer cannot explain the numerous accounts of selfless behaviour.

budget deficit Referring usually to the government's budget, it is the situation where government tax revenues are less than government expenditures over a specific period of time (usually a year).

budget surplus Referring usually to the government's budget, it is the situation where government tax revenues are greater than government expenditures over a specific period of time (usually a year).

business confidence A measure of the degree of optimism among firms in an economy about the future performance of firms and the economy; it is measured on the basis of surveys of business managers. Is an important determinant of the investment component of aggregate demand.

business cycle Fluctuations in the growth of real output, or real GDP, consisting of alternating periods of expansion (increasing real output) and contraction (decreasing real output).

capital One of the factors of production, which itself has been produced (it does not occur naturally), also known as 'physical capital', including machinery, tools, equipment, buildings, etc. Other types of capital include 'human capital', or the skills, abilities, knowledge and levels of good health acquired by people; 'natural capital', or everything that traditionally has been included in the factor of production 'land'; and 'financial capital', or purchases of financial instruments such as stocks and bonds.

capital account In the balance of payments, refers to the inflows minus outflows of funds for (i) capital transfers (including such things as debt forgiveness and non-life insurance claims), and (ii) the purchase or use of non-produced natural resources (such as mineral rights, forestry rights, fishing rights and airspace); it is a relatively unimportant part of the balance of payments.

capital expenditures With reference to government expenditures, these include public investments, or the production of physical capital, such as building roads, airports, harbours, school buildings, hospitals, etc.

capital flight The large-scale transfer of privately-owned financial capital (funds) to another country resulting from fear and uncertainty of holding domestic assets.

capital gains tax A tax on profits from financial investments such as stocks and bonds or from buying and selling real estate.

capital transfers A part of the capital account of the balance of payments, they include inflows minus outflows for such things as debt forgiveness, non-life insurance claims, and investment. See *capital account*.

carbon tax A tax per unit of carbon emissions of fossil fuels, considered by many countries as a policy to deal with the problem of climate change.

central bank A financial institution responsible for regulating the country's financial system and commercial banks, and carrying out monetary policy.

ceteris paribus A Latin expression meaning 'other things being equal'; all other variables other than those under investigation are assumed to be constant or unchanging.

change One of the key concepts of this course; change is important in economics in the study of both economic theory as well as in real world events. *One of the key concepts of this course*

choice One of the key concepts of this course; economics is a study of choices, or selecting among alternatives, due to the scarcity of resources. *One of the key concepts of this course*

choice architecture A term in *behavioural economics*, it is the design of particular ways or environments in which people make choices, based on the idea that consumers make decisions in a particular context and that choices of decision-makers are influenced by how options are presented to them.

circular economy The idea that goods should be produced in such a way that they can be repaired rather than thrown out; they would be made out of biological materials so that once discarded they can go back to the biosphere and prevent pollution of the planet.

circular flow of income a flow of income in an economy where the value of output produced is equal to the total income generated in producing that output, which is equal to the expenditures made to purchase that output (see *circular flow of income model*).

circular flow of income model A model showing the flow of resources from consumers (households) to firms, and the flow of products from firms to consumers, as well as money flows consisting of consumers' income arising from the sale of their resources and firms' revenues arising from the sale of their products.

classical economics Economic ideas of the nineteenth century; a main feature was the idea that markets working on their own according to the principles of supply and demand could solve all major economic problem, including unemployment and recession, and allocate resources efficiently.

collective self-governance A solution to the use of common pool resources where the users take control of the resources and use them in a sustainable way; runs counter to the idea of the *tragedy of the commons*. This solution presupposes that the users of the resources can communicate with each other, resulting in rules about the use of the resources along with sanctions for violations of the rules.

collusion An agreement among firms to fix prices, or divide the market between them, so as to limit competition and maximise profit; usually involves firms in oligopoly.

collusive oligopoly Refers to the type of oligopoly where firms agree to restrict output or fix the price, in order to limit competition, increase market power (monopoly power) and increase profits.

command and control Refers to government laws and regulations that everyone must follow.

commercial bank A financial institution (which may be private or public) whose main functions are to hold deposits for their customers (consumers and firms), to make loans to their customers, to transfer funds by cheque (check) from one bank to another, and to buy government bonds; they are regulated by the *central bank*.

common market A type of trading bloc in which countries that have formed a customs union proceed further to eliminate any remaining tariffs in trade between them; they continue to have a common external policy (as in a *customs union*), and in addition agree to eliminate all restrictions on movements of any factors of production within them; factors affected are mainly labour and capital. The best-known common market is the European Economic Community (EEC, precursor of the present European Union).

common pool resources Resources that are not owned by anyone, do not have a price, and are available for anyone to use without payment (for example, lakes, rivers, fish in the open seas, open grazing land, the ozone layer and many more); their depletion or degradation leads to environmental unsustainability.

community surplus See *social surplus*.

comparative advantage Arises when a country has a lower relative cost, or opportunity cost, in the production of a good than another country. Forms the basis of the *theory of comparative advantage*.

competition Occurs when there are many buyers and sellers acting independently, so that no one has the ability to influence the price at which the product is sold in the market.

competitive market A market composed of many buyers and sellers acting independently, none of whom has any ability to influence the price of the product (i.e. no *market power*).

competitive market equilibrium The equilibrium that emerges at the point where the demand curve intersects the supply curve in a free competitive market (where there is no government intervention).

competitive supply In the case of two goods, refers to production of one or the other by a firm; in other words the two goods compete with each other for the same resources (for example, if a farmer can produce wheat or corn, producing more of one means producing less of the other).

complements (complementary goods) Two or more goods that tend to be used together. If two goods are complements, an increase in the price of one will lead to a decrease in the demand of the other.

composite indicator A summary measure of more than one indicator, often used to measure economic development; for example the *Human Development Index* (*HDI*), that measures income, education and health indicators.

concentration ratio A measure of how much an industry's production is concentrated among the industry's largest firms; it measures the percentage of output produced by the largest firms in an industry, and is used to provide an indication of the degree of competition or degree of market power in an industry. The higher the ratio, the greater the degree of market power; see also *market concentration*.

consumer confidence A measure of the degree of optimism of consumers about their future income and the future of the economy; it is measured on the basis of surveys of consumers. Is an important determinant of the consumption component of aggregate demand.

consumer nudge See *nudge*.

consumer price index A measure of the cost of living for the typical household; it compares the value of a basket of goods and services in one year with the value of the same basket in a base year. Inflation (and deflation) are measured as a percentage change in the value of the basket from one year to another.

consumer surplus Refers to the difference between the highest prices consumers are willing to pay for a good and the price actually paid. In a diagram, it is shown by the area under the demand curve and above the price paid by consumers up to quantity purchased.

consumption Spending by households (consumers) on goods and services (excludes spending on housing).

contracting out A practice often undertaken by the government when it makes an agreement (or contract) with a private firm to carry out an activity that the government was previously doing itself.

contractionary fiscal policy Refers to fiscal policy usually pursued in an inflation, involving a decrease in government spending or an increase in taxes (or both). May be contrasted with *expansionary fiscal policy*. See also *fiscal policy*.

contractionary monetary policy Refers to monetary policy usually pursued in an inflation, involving an increase in interest rates, intended to lower investment and consumption spending. May be contrasted with *expansionary monetary policy*. See also *monetary policy*.

corporate income tax Tax on the profits of corporations, which are businesses (firms) that have formed a legal body called a 'corporation' that is legally separate from its owners.

corporate indebtedness The degree to which corporations have debts.

corporate social responsibility The practice of some corporations to avoid socially undesirable activities, such as polluting activities, employing children, or employing workers under unhealthy conditions; as well as undertaking socially desirable activities, such as support for human rights and donations to charities.

cost-push inflation A type of inflation caused by a fall in aggregate supply, usually resulting from increases in costs of production (for example, wages or prices of other inputs), shown in the *AD-AS* model as a leftward shifts of the *AS* curve.

costs of production Payments by firms to obtain and use factors of production in their production process.

credit items In the balance of payments, refer to payments received from other countries, entering the balance of payments accounts with a plus sign; they represent an inflow of foreign exchange into a country.

credit rating An assessment of the ability of a borrower to pay back loans, usually carried out by agencies that are qualified to do this; a high credit rating received by a government means that it is expected to be able to pay back its loans in full and on time without difficulties.

crowding out Refers to the possible impacts on real GDP of increased government spending (expansionary fiscal policy) financed by borrowing; if increased government borrowing results in a higher rate of interest, this could reduce private investment spending, thus reversing the impacts of the government's expansionary fiscal policy.

current account balance The sum of credits plus debits in the current account of the *balance of payments*.

current account deficit Occurs when the current account balance has a negative value, meaning that debits are larger than credits (there is an excess of debits).

current account In the balance of payments, this includes the balance of trade (recording exports minus imports of goods) plus the balance on services (recording exports of services minus imports of services), plus inflows minus outflows of income and current transfers. The most important part of the current account in most countries is the balance of trade.

current account surplus Occurs when the current account balance has a positive value, meaning that credits are larger than debits (there is an excess of credits).

current expenditures In the government budget, refers to government spending on day-to-day items that are recurring (i.e. repeat themselves) and items that are used up or 'consumed' as a good or service is provided. Include wages and salaries (for all government employees); spending for supplies and equipment for the day-to-day operation of government activities (for example, school supplies and medical supplies for public schools and public health care services); provision of subsidies; and interest payments on government loans.

current transfers An item in the current account of the balance of payments, refers to inflows and outflows of funds for items including gifts, foreign aid and pensions.

customs union A type of trading bloc, consisting of a group of countries that fulfil the requirements of a free trade area (elimination of trade barriers between members) and in addition adopt a common policy towards all non-member countries; members of a customs union also act as a group in all trade negotiations and agreements with non-members.

cyclical unemployment A type of unemployment that occurs during the downturns of the business cycle, when the economy is in a recessionary gap; the downturn is seen as arising from declining or low aggregate demand, and therefore is also known as 'demand-deficient' unemployment.

debit items In the balance of payments, refer to payments made to other countries, entering the balance of payments accounts with a minus sign; they represent an outflow of foreign exchange from a country.

debt relief Refers to the cancellation or forgiveness of all or a portion of a country's debt.

debt servicing The payments that must be made in order to repay the principal (the amount of a loan) plus interest.

default choice A term in *behavioural economics*; it is a choice that is made by default, which means doing the option that results when one does not do anything.

deferred consumption Occurs when consumers postpone spending, such as if they expect the price level to fall.

deficit In general, this is the deficiency of something compared with something else. (i) In the balance of payments, a 'deficit' in an account occurs when the credits (inflows of money from abroad) are smaller than the debits (outflows of money to other countries); for example, a deficit in the balance of trade means that the value of exports (credits) is smaller than the value of imports (debits). (ii) In the case of the government budget, a 'deficit' occurs when government revenues are smaller than government expenditures.

deflation A continuing (or sustained) decrease in the general price level.

deflationary gap See *recessionary gap*.

demand Indicates the various quantities of a good that consumers (or a consumer) are willing and able to buy at different possible prices during a particular time period, *ceteris paribus* (all other things being equal).

demand curve A curve showing the relationship between the price of a good and the quantity of the good demanded, *ceteris paribus* (all other things equal); see *demand*.

demand management Policies that focus on the demand side of the economy, attempting to influence aggregate demand to achieve the goals of price stability, full employment and economic growth.

demand-deficient unemployment See *cyclical unemployment*.

demand-pull inflation A type of inflation caused by an increase in aggregate demand, shown in the *AD-AS* model as a rightward shift in the *AD* curve.

demand-side policies Policies that attempt to change aggregate demand (shift the aggregate demand curve in the *AD-AS* model) in order to achieve the goals of price stability, full employment and economic growth, and minimise the severity of the business cycle. In the event of an inflationary or recessionary (deflationary) gap, they try to bring aggregate demand to the full employment level of real GDP, or potential GDP. They can also impact on economic growth by contributing to increases in potential GDP. Consists of fiscal and monetary policies. To be contrasted with *supply-side policies*.

demerit goods Goods that are considered to be undesirable for consumers and are overprovided by the market. Reasons for overprovision are usually that the goods have *negative consumption externalities;* in addition there may be consumer ignorance about the harmful effects.

depreciation (of a currency) Refers to a decrease in the value of a currency in the context of a floating exchange rate system or managed exchange rate system (to be compared with devaluation, which is a decrease in currency value in a fixed or pegged exchange rate system).

deregulation Policies involving the elimination or reduction of government regulation of private sector activities, based on the argument that government regulation stifles competition and increases inefficiency.

determinants of aggregate demand Factors that cause shifts of the aggregate demand curve; include factors that influence consumption spending (C), investment spending (I), government spending (G) and net exports ($X - M$).

determinants of demand See *non-price determinants of demand*.

determinants of supply See *non-price determinants of supply*.

devaluation (of a currency) Refers to a decrease in the value of a currency in the context of a fixed or pegged exchange rate system (to be compared with *depreciation*, which is a decrease in currency value in the context of a floating or managed exchange rate system).

development aid Foreign aid intended to help economically less developed countries with their growth and development efforts; to be contrasted with *humanitarian aid*.

direct taxes Taxes paid directly to the government tax authorities by the taxpayer, including personal income taxes, corporate income taxes and wealth taxes.

discount rate See *minimum lending rate* of central bank.

disinflation Refers to a fall in the rate of inflation; it involves a positive rate of inflation and should be contrasted with *deflation*.

distribution of income Concerned with how much of an economy's total income different individuals or different groups in the population receive, and involves answering the '*for whom*' basic economic question.

diversification Generally refers to change involving greater variety, and is used to refer to increasing the variety of goods and services produced and/or exported by a country; it is the opposite of *specialisation*.

economic development Broad-based rises in standards of living and well-being of a population, particularly in developing countries. It involves increasing income levels and reducing poverty, reducing income inequalities and unemployment, and increasing provision of and access to basic goods and services such as food and shelter, sanitation, education and health care services.

economic growth Increases in total real output produced by an economy (real GDP) over time; may also refer to increases in real output (real GDP) *per capita* (or per person).

economic inequality The degree to which people in a population differ in their ability to satisfy their economic needs; economists focus on inequalities that result mainly from differences in income and wealth.

economic integration Refers to economic interdependence between countries, usually achieved by agreement between countries to reduce or eliminate trade and other barriers between them. There are various degrees of integration, depending on the type of agreement and the degree to which barriers between countries are removed; see *trading bloc*, *free trade area*, *customs union*, *common market*, *monetary union*.

economic well-being One of the key concepts of this course; refers to levels of prosperity, economic satisfaction and standards of living among the members of a society. *One of the key concepts of this course*

economically least developed countries Developing countries with very low incomes that have low levels of human capital and a high degree of economic vulnerability; they are challenged in achieving *sustainable development*.

economics The study of choices leading to the best possible use of scarce resources in order to best satisfy unlimited human needs and wants.

economies of scale Decreases in the average costs of production that occur as a firm increases its output by varying all its inputs (i.e. in the long run); explain the downward-sloping portion of the long-run average total cost curve: as a firm increases its size, the costs per unit of output fall.

efficiency One of the key concepts of this course; involves making the best possible use of scarce resources to avoid waste; may refer to producing at the lowest possible cost, or producing what consumers mostly want (see *allocative efficiency*).

elastic Refers to a high responsiveness of a variable (such as quantity demanded) to a change in another variable (such as price or income); see various elasticities.

elasticity In general, this is a measure of the responsiveness or sensitivity of a variable to changes in any of the variable's determinants. See specific elasticities: *price elasticity of demand*, *income elasticity of demand*, *price elasticity of supply*.

empirical evidence Real-world information, observations and data that we acquire through our senses and experience.

Engel curve A curve that shows the relationship between consumer income and demand for a product; indicates whether a good is normal or inferior.

entrepreneurship One of the factors of production, involving a special human skill that includes the ability to innovate by developing new ways of doing things, to take business risks and to seek new opportunities for opening and running a business. Entrepreneurship organises the other three factors of production (land, labour and capital) and takes on the risks of success or failure of a business.

equality The state of being equal with respect to something; income equality means everyone receives the same income. *One of the key concepts of this course*

equilibrium A state of balance such that there is no tendency to change

equilibrium level of output The level of output (real GDP) where the aggregate demand curve intersects the aggregate supply curve (also known as the 'equilibrium level of income'). Note the distinction between *short-run equilibrium level of output* and *long-run equilibrium level of output*.

equilibrium level of real GDP See *equilibrium level of output*.

equilibrium price The price determined in a market when quantity demanded is equal to quantity supplied, and there is no tendency for the price to change; it is the price that prevails when there is *market equilibrium*.

equilibrium quantity The quantity that is bought and sold when a market is in equilibrium, i.e. when quantity demanded is equal to quantity supplied.

equity One of the key concepts of this course; is the condition of being fair or just; should be contrasted with the term 'equality'. Often used in connection with income distribution, in which case it is usually interpreted to mean income equality (though this is only one possible interpretation of equity).

excess demand In the context of demand and supply, occurs when the quantity of a good demanded is greater than the quantity supplied, leading to a shortage of the good; see *shortage*.

excess supply In the context of demand and supply, occurs when the quantity of a good demanded is smaller than the quantity supplied, leading to a surplus; see *surplus*.

exchange rate The rate at which one currency can be exchanged for another, or the number of units of foreign currency that correspond to the domestic currency; can be thought of as the 'price' of a currency, which is expressed in terms of another currency.

excludable A characteristic of goods according to which it is possible to exclude people from using the good by charging a price for it; if someone is unwilling or unable to pay the price they will be excluded from using it. Most goods are excludable. See also *rivalrous*.

expansionary fiscal policy Refers to fiscal policy usually pursued in a recession, involving an increase in government spending or a decrease in taxes (or both). May be contrasted with *contractionary fiscal policy*. See also *fiscal policy*.

expansionary monetary policy Refers to monetary policy usually pursued in a recession, involving a decrease in interest rates, intended to increase investment and consumption spending. May be contrasted with *contractionary monetary policy*. See also *monetary policy*.

expenditure approach A method used to measure the value of aggregate output of an economy, which adds up all spending on final goods and services produced within a country within a given time period ($C + I + G + (X - M)$). As suggested by the circular flow model, it is equivalent to measurement by the *output approach* and the *income approach*.

expenditure reducing policies Policies that involve reducing expenditures in the domestic economy so as to bring about a decrease in imports in order to correct a current account deficit; they include contractionary fiscal and monetary policies.

expenditure switching policies Policies that involve switching consumption away from imported goods and towards domestically produced goods, in order to correct a current account deficit; include trade protection policies and depreciation.

export promotion Refers to a growth and trade strategy where a country attempts to achieve economic growth by expanding its exports. As a trade strategy, it looks towards foreign markets and is based on stronger links between the domestic and global economies. To be contrasted with *import substitution*.

export subsidy A payment by the government to a producer or exporter per unit of the subsidised good, where the subsidy is paid for each unit of the good that is exported.

exports Goods or services that are sold to other countries.

external balance A situation where the revenues from exports of goods and services are roughly equal to the expenditures on imports of goods and services over an extended period of time

externality Occurs when the actions of consumers or producers give rise to positive or negative side-effects on other people who are not part of these actions, and whose interests are not taken into consideration. Positive externalities give rise to positive side-effects; negative externalities to negative side-effects.

factors of production All resources, or inputs (land, labour, capital, entrepreneurship) used to produce goods and services.

financial account In the balance of payments, refers to inflows minus outflows of funds due to foreign direct investment, portfolio investment, changes in reserve assets and changes in official borrowing.

firm A business involved in production of goods or services; a key decision-maker in a market economy.

fiscal policy Manipulations by the government of its own expenditures and taxes in order to influence the level of aggregate demand; it is a type of *demand-side policy* or *demand management*.

fixed exchange rate Refers to an exchange rate that is fixed by the central bank of a country, and is not permitted to change in response to changes in currency supply and demand; requires constant intervention by the central bank or government.

fixed exchange rate system An exchange rate system where exchange rates are fixed by the central bank of each country. See *fixed exchange rate*.

floating exchange rate An exchange rate determined entirely by market forces, or the forces of supply and demand. There is no government intervention in the foreign exchange market to influence the value of the exchange rate.

floating exchange rate system An exchange rate system where exchange rates are determined entirely by market forces; see *floating exchange rate*.

for whom to produce One of the three basic economic questions; refers to the choice that must be made in response to the question of income or wealth distribution among a population.

foreign aid The transfer of funds or goods and services to developing countries with the main objective to bring about improvements in their economic, social or political conditions. Such transfers must be 'concessional' (loans must be on more favourable terms than a bank would give) and 'non-commercial' (must not be involved with buying and selling activities concerned with making a profit).

foreign direct investment (FDI) Refers to investment by firms based in one country (the home country) in productive activities in another country (the host country) with control of at least 10 per cent of the firm in the host country. Firms that undertake FDI are called *multinational corporations*.

foreign exchange Refers to foreign national currencies, i.e. for any country, it refers to currencies other than its own.

framing A term from *behavioural economics*, it deals with how choices are presented to decision-makers; for example, consumers might be willing to pay a higher price for a faded pair of jeans in a boutique than for the identical pair of jeans in a discount store.

free entry The condition in which firms face no barriers to entering an industry, characteristic of the market structures of *perfect competition* and *monopolistic competition*.

free good Any good that is not scarce, therefore has a zero opportunity cost.

free market economy An 'ideal type' of economy based on the market approach to making economic decisions; involve private sector ownership and decision-making, and price rationing; to be contrasted with a *planned economy*.

free rider problem Occurs when people can enjoy the use of a good without paying for it, and arises from non-excludability: people cannot be excluded from using the good, because it is not possible to charge a price. Is often associated with public goods, which are a type of market failure: due to the free rider problem, private firms fail to produce these goods.

free trade The absence of government intervention of any kind in international trade, so that trade takes place without any restrictions (or barriers) between individuals or firms in different countries.

free trade area (agreement) A type of trading bloc, consisting of a group of countries that agree to eliminate trade barriers between themselves; it is the most common type of integration area, and involves a lower degree of economic integration than a *customs union* or *common market*. Each member country retains the right to pursue its own trade policy towards non-member countries. An example is NAFTA (North American Free Trade Agreement).

frictional unemployment A type of unemployment that occurs when workers are between jobs; workers may leave their job because they have been fired, or because their employer went out of business, or because they are in search of a better job, or they may be waiting to begin a new job; tends to be short term.

full employment (i) In the production possibilities model, refers to maximum use of all resources in the economy to produce the maximum quantity of goods and services that the economy is capable of producing (production possibilities), implying zero unemployment. (ii) In the *AD–AS* model, refers to the *natural rate of unemployment*, or unemployment of labour that prevails when the economy is producing potential output, or real GDP, determined by the position of the *LRAS* curve (when the economy is in long equilibrium).

full employment level of output (real GDP) The level of output (or real GDP) at which unemployment is equal to the natural rate of unemployment; the level of output (real GDP) where there is no deflationary or recessionary gap. Also known as *potential output (potential GDP)*.

gains from trade Refer to the gains from international trade that arise when countries specialise and trade according to their absolute or comparative advantage; may be in terms of increased output or increased consumer or producer surplus.

game theory A mathematical technique analysing the behaviour of decision-makers who are dependent on each other, and who use strategic behaviour as they try to anticipate the behaviour of their rivals. Has become an important tool in microeconomics, often used to analyse the behaviour of oligopolistic firms; is based heavily on the work of American mathematician and economist John Nash.

GDP *per capita* Gross domestic product divided by the number of people in the population; is an indicator of the amount of domestic output per person in the population.

GDP See *gross domestic product*.

Gender Inequality Index (GII) A composite indicator that measures inequalities between the genders in three dimensions: reproductive health, empowerment and labour market participation.

Gini coefficient (Gini index) A summary measure of the information contained in the *Lorenz curve* of an economy, defined as the area between the diagonal and the Lorenz curve, divided by the entire area under the diagonal. The Gini coefficient has a value between 0 and 1; the larger the Gini coefficient, and the closer it is to 1, the greater is the income inequality.

globalisation Refers to economic integration on a global scale, involving increasing interconnectedness throughout the world in many areas (trade, finance, investment, people, technology, ideas, knowledge, communications and culture).

GNI See *gross national income*.

GNI *per capita* Gross national income divided by the number of people in the population; is an indicator of the amount of income in an economy per person in the population.

governance Refers to the way of governing, and the exercise of power in the management of an economy's economic and social resources, in order to achieve particular objectives such as economic growth and development.

government debt Refers to the government's accumulation of budget deficits minus budget surpluses; is the total amount owed by the government to all creditors (lenders); also known as *national debt*.

government intervention The practice of government to intervene (interfere) in markets, preventing the free functioning of the market, usually for the purpose of achieving particular economic or social objectives.

gross domestic product (GDP) A measure of the value of aggregate output of an economy, it is the market value of all final goods and services produced within a country during a given time period (usually a year); may be contrasted with *gross national income (GNI)*.

gross national income (GNI) A measure of the total income received by the residents of a country, equal to the value of all final goods and services produced by the factors of production supplied by the country's residents regardless of where the factors are located; GNI = GDP plus income from abroad minus income sent abroad. May be contrasted with *gross domestic product* (GDP).

growth in production possibilities An outward shift in the *PPC* caused by a decrease in unemployment, or improvement in efficiency of production, or both, leading to more output produced.

growth maximization One possible goal of firms, involving the objective to make the growth of the firm as high as possible.

growth See *economic growth*.

Happiness Index An alternative method to standard national income accounting that measures economic well-being using numerous quality of life dimensions in addition to real GDP *per capita*.

Happy Planet Index An alternative method to standard national income accounting that takes into account environmental sustainability and inequalities. It is a measure of sustainable well-being based on four dimensions, life expectancy, well-being, inequality of outcomes, ecological footprint.

homogeneous product A product that is completely standardised and not differentiated; is characteristic of products in perfect competition.

household A consumer or group of consumers (such as a family) that buys goods and services for its own use; a key decision-maker in a market economy.

household indebtedness The degree to which households have debts.

how to produce One of the three basic economic questions; refers to the choice that must be made in response to the question of what combinations of resources and what types of technologies to use in order to produce goods and services.

human capital The skills, abilities and knowledge acquired by people, as well as good levels of health, all of which make them more productive; considered to be a kind of 'capital' because it provides a stream of future benefits by increasing the amount of output that can be produced in the future.

Human Development Index (HDI) A composite indicator of development which includes indicators that measure three dimensions of development: income *per capita*, levels of health and educational attainment; is considered to be a better indicator of development than single indicators such as GNI *per capita*.

humanitarian aid Foreign aid extended in regions where there are emergencies caused by violent conflicts or natural disasters such as floods, earthquakes and tsunamis, intended to save lives, ensure access to basic necessities such as food, water, shelter and health care, and provide assistance with reconstruction.

hypothesis An educated guess, usually about a cause-and-effect relationship about an event, usually used to make predictions of real-world events by use of empirical evidence; hypotheses that have not been refuted (rejected) by the evidence may be used to build theories.

imperfect competition Refers to the situation where firms face some degree of competition (therefore they are not monopolies) but also have some degree of market power (therefore they are not perfectly competitive); include monopolistic competition and oligopoly.

import quota See *quota*.

import substitution A growth and trade strategy where a country begins to manufacture simple consumer goods oriented towards the domestic market (such as shoes, textiles, beverages, electrical appliances) in order to promote its domestic industry; it presupposes the imposition of protective measures (tariffs, quotas, etc.) that will prevent the entry of imports that compete with domestic producers. To be contrasted with *export promotion.*

imports Goods or services produced in other countries that are bought and brought into the domestic economy.

incentive function of price See *prices as incentives.*

incentive-related policies Policies involving reduction of various types of taxes (such as income taxes and business taxes), in the expectation that the tax cuts will change the incentives faced by tax-payers; for example, cuts in income taxes may encourage the desire to work; cuts in business taxes may encourage investment. Are a type of *market based supply-side policy*.

income (i) the money people receive from their employment as well as other sources including interest from savings accounts and holdings of bonds, rents from property, pensions, etc; (ii) in the current account of the balance of payments, refers to inflows of all income (mainly interest and profits) earned abroad minus the same income factors that are sent abroad.

income approach A method used to measure the value of aggregate output of an economy, which adds up all income earned by the factors of production in the course of producing all goods and services within a country in a given time period. As suggested by the circular flow model, it is equivalent to measurement by the *expenditure approach* and the *output approach*.

income distribution See *distribution of income.*

income effect Part of an explanation of the law of demand; as price falls real income increases causing the consumer to buy more of the good (the other part is the *substitution effect*).

income elastic demand Relatively high responsiveness of demand to changes in income; *YED* (income elasticity of demand) > 1. See *income elasticity of demand.*

income elasticity of demand A measure of the responsiveness of demand to changes in income; measured by the percentage change in quantity demanded divided by the percentage change in price.

income inelastic demand Relatively low responsiveness of demand to changes in income; *YED* (income elasticity of demand) < 1. See *income elasticity of demand.*

income redistribution See *redistribution of income.*

income taxes Taxes paid by households on their incomes

indicator A measurable variable that indicates the state or level of something; for example GDP per capita is an indicator of the level of output per person in an economy.

indirect taxes Taxes levied on spending to buy goods and services, called indirect because, whereas payment of some or all of the tax by the consumer is involved, they are paid to the government authorities by the suppliers (firms), that is, indirectly.

industrial policies Interventionist supply-side policies designed to support the growth of the industrial sector of an economy; may include support for small- and medium-sized firms or support for 'infant industries' through tax cuts, grants, low interest loans and other measures, as well as investment in human capital, research and development, or infrastructure development in support of industry.

inelastic Refers to a low responsiveness of a variable (such as quantity demanded) to a change in another variable (such as price or income); see various elasticities.

inequality (unequal) The absence of *equality*.

Inequality-adjusted Human Development Index (IHDI) A composite indicator that measures human development in the same three dimensions as the *Human Development Index* (income *per capita*, levels of health and educational attainment), but each dimension is adjusted for inequality in the corresponding dimension; attempts to measure losses in human development that arise from inequality.

inequity (inequitable) The absence of *equity*, when something is not equitable or fair

infant industry A new domestic industry that has not had time to establish itself and achieve efficiencies in production, and may therefore be unable to compete with more 'mature' competitor firms from abroad; considered to be one of the strongest arguments in favour of trade protection in developing countries. Also known as sunrise industry.

inferior good A good the demand for which varies negatively (or indirectly) with income; this means that as income increases, the demand for the good decreases.

inflation A continuing (or sustained) increase in the general price level.

inflation targeting A type of monetary policy carried out by some central banks that focuses on achieving a particular inflation target, rather than focusing on the goals of low and stable rate of inflation and low unemployment.

inflationary gap A situation where real GDP is greater than potential GDP, and unemployment is lower than the natural rate of unemployment; it arises when the *AD* curve intersects the *SRAS* curve at a higher level of real GDP than potential GDP.

informal economy That part of an economy that lies outside of the formal economy, consisting of economic activities that are unregistered and legally unregulated; it exists everywhere in the world but in developing countries it is often a very important part of the economy, because it offers work and income to substantial portions of the population who have no other opportunities to work in view of lack of employment opportunities in the formal economy.

infrastructure Numerous types of physical capital resulting from investments, making major contributions to economic growth and development by lowering costs of production and increasing productivity; include power, telecommunications, piped water supplies, sanitation, roads, major dam and canal works for irrigation and drainage, urban transport, ports and airports.

injections In the circular flow of income model, refer to the entry into income flow of funds corresponding to investment, government spending or exports.

integration See *economic integration*.

interdependence One of the key concepts of this course; refers to the idea that economic decision-makers interact with and depend on each other; arises from the fact that no one is self-sufficient. *One of the key concepts of this course*

interest (i) A payment, per unit of time, for the use of borrowed money (borrowers pay interest, lenders receive interest). (ii) A payment, per unit of time, to owners of capital resources.

interest rate Interest expressed as a percentage; in the case of borrowed money, it is interest as a percentage of the amount borrowed. Changes in interest rates form the basis of *monetary policy*.

International Monetary Fund (IMF) An international financial institution composed of 189 member countries, whose purpose is to make short-term loans to governments on commercial terms (i.e. non-concessional) in order to stabilise exchange rates, alleviate balance of payments difficulties and help countries meet their foreign debt obligations.

intervention One of the key concepts of this course; typically refers to government intervention, meaning that the government becomes involved with the workings of markets..

interventionist policy Any policy based on government intervention in the market; to be contrasted with *market-oriented policy*. See also *government intervention*.

interventionist supply-side policy Any policy based on government intervention in the market intended to affect the supply-side of the economy, usually to shift the *LRAS* curve to the right, increase potential output and achieve long term economic growth; see industrial policy or investments in education or infrastructure as examples. May be contrasted with market-based supply side policy.

investment Includes spending by firms or the government on capital goods (i.e. buildings, machinery, equipment, etc.) and all spending on new construction (housing and other buildings).

J-curve effect A curve that plots the balance of trade (exports minus imports) on the vertical axis and time on the horizontal axis, showing that a country with a devaluing/depreciating currency may see a worsening in its trade balance (an increase in a trade deficit) in the period immediately following the devaluation or depreciation, while in a later period the trade deficit will begin to shrink provided the Marshall–Lerner condition holds (see *Marshall–Lerner condition*).

John Maynard Keynes (1883–1946) A British economist; one of his ideas that he is famous for is that an economy left on its own will not necessarily lead to full employment on its own, thus requiring government intervention.

joint supply Refers to production of two or more goods that are derived from a single product, so that it is not possible to produce more of one without producing more of the other (for example, butter and skimmed milk are both produced from whole milk, and producing more of one means producing more of the other as well).

Karl Marx A German philosopher who developed a theory predicting the collapse of capitalism and its replacement by communism, highly regarded for his insights into how capitalism works.

Keynesian aggregate supply curve An aggregate supply curve that has a flat (horizontal) section, an upward sloping section and a vertical section. It shows the relationship between real GDP and the price level on the assumption that prices and wages are inflexible downward. Changes in the price level and/or real GDP depend on the level of aggregate demand and where the economy is producing relative to full capacity output.

Keynesian multiplier The ratio of real GDP divided by a change in any of the components of aggregate spending (consumption C, investment I, government spending G, or net exports $X-M$); alternatively it is $1/(1-MPC)$, where MPC is the marginal propensity to consume. The value of this ratio is usually greater than one because of a multiplied effect of an initial change in a component of aggregate spending on the final value of real output.

Keynesian revolution A school of thought based on the contributions of John Maynard Keynes, according to which government intervention in the economy is essential for the management of aggregate demand in order to ensure that full employment will be achieved.

labour A factor of production, which includes the physical and mental effort that people contribute to the production of goods and services.

labour market flexibility Refers to the operation of market forces (supply and demand) in the labour market. May be achieved by reducing or eliminating interference with market forces (for example, reducing or eliminating minimum wages and labour union activities, reducing job security, etc.).

labour union an association of workers in a particular profession, whose objective is to improve working conditions and defend rights of workers, representing its members in negotiations with employers.

laissez-faire A French expression meaning *let it do*, referring to a free market economy without government intervention, such as was advocated by *Adam Smith*. According to this idea a free market economy left on its own will be highly efficient.

land A factor of production which includes all natural resources: land and agricultural land, as well as everything that is under or above the land, such as minerals, oil reserves, underground water, forests, rivers and lakes. Natural resources are also called 'gifts of nature' or 'natural capital'.

land rights A group of property rights that refer to the rights and rules to possess, occupy and use land; the term *land* here refers to natural resources including the land itself, trees, minerals, pasture, water.

law of demand A law stating that there is a negative relationship between the price of a good and quantity of the good demanded, over a particular time period, *ceteris paribus*: as the price of the good increases, the quantity of the good demanded falls (and vice versa).

law of diminishing marginal returns A law stating that as more and more units of a variable input (such as labour) are added to one or more fixed inputs (such as land), the marginal product of the variable input at first increases, but there comes a point when the marginal product of the variable input begins to decrease; underlies the firms' supply curve.

law of diminishing marginal utility A law stating that as consumption of a good increases, marginal utility, or the extra utility the consumer receives, decreases with each additional unit consumed, therefore consumers will buy more only if price falls; this underlies the law of demand.

law of supply A law stating that there is a positive relationship between the price of a good and quantity of the good supplied, over a particular time period, *ceteris paribus*: as the price of the good increases, the quantity of the good supplied also increases (and vice versa).

leakages In the circular flow of income model, refers to the withdrawal from the income flow of funds corresponding to savings, taxes or imports.

logic A method of reasoning which involves making a series of statements each of which is true if the preceding statement is true.

long run (in macroeconomics) In macroeconomics, it is the period of time when prices of resources (especially wages) change along with changes in the price level.

long run (in microeconomics) In microeconomics, it is a time period in which all inputs can be changed; there are no fixed inputs.

long-run aggregate supply (*LRAS*) curve A curve showing the relationship between real GDP produced and the price level when wages (and other resource prices) change to reflect changes in the price level, *ceteris paribus*. The *LRAS* curve is vertical at the full employment level of GDP, indicating that in the long run output is independent of the price level.

long-run aggregate supply The total quantity of goods and services (real output or real GDP) produced in an economy in the *long run* (when wages and other resource prices change to reflect changes in the price level), *ceteris paribus*.

long-run equilibrium level of output The level of output (real GDP) that results when the economy is in long-run equilibrium, occurring when the aggregate demand and short-run aggregate supply curves intersect at a point on the long-run aggregate supply curve; occurs where the vertical *LRAS* curve intersects the horizontal axis, known as *potential output*.

long-run Phillips curve See *Phillips curve*.

long-term growth Growth of an economy (growth in real output) over long periods of time; shown by rightward shifts of the long-run aggregate supply (LRAS) curve corresponding to the long-term growth trend of the business cycle; or outward shifts of the production possibilities curve (PPC).

long-term growth trend In the business cycle diagram, refers to the line that runs through the business cycle curve, representing average growth over long periods of time; shows how output grows over time when cyclical fluctuations are ironed out. The output represented by the long-term growth trend is known as *potential output*.

Lorenz curve A curve illustrating the degree of equality (or inequality) of income (or wealth) distribution in an economy. It plots the cumulative percentage of income received by cumulative shares of the population. The closer the Lorenz curve is to the diagonal line of perfect equality, the more equal the income distribution.

loss Arises when total costs of a firm are greater than its total revenue; alternatively when average cost is greater than average revenue, or average cost is greater than price; it is negative *profit*.

luxury goods Goods that are not necessary or essential; they have a *price elastic demand* (*PED*>1) and *income elastic demand* (*YED*>1). To be contrasted with *necessities*.

macroeconomic equilibrium In macroeconomics occurs where aggregate demand interests aggregate supply, determining the price level and level of real output (real GDP); see *short-run* and *long-run equilibrium level of output*.

macroeconomics The branch of economics that examines the economy as a whole by use of aggregates, which are wholes or collections of many individual units, such as the sum of consumer behaviours and the sum of firm behaviours, total income and output of the entire economy as well as total employment and the general price level.

managed exchange rates Exchange rates that are for the most part free to float to their market levels (i.e. their equilibrium levels) over long periods of time; however, central banks periodically intervene in order to stabilise them over the short term.

mandated choice A term from *behavioural economics*, it is a choice between alternatives that is made mandatory (compulsory) by the government or other authority; required choice.

manufactured products goods produced by labour usually working together with capital as well as raw materials, such as for example cars, computers and televisions.

margin/marginal Means extra or additional; is used in a number of contexts in economics, including *marginal utility*, *marginal benefit*, *marginal cost*, *marginal product*, *marginal revenue*, *marginal tax rate*.

marginal benefit The extra or additional benefit received from consuming one more unit of a good.

marginal cost The extra or additional cost of producing one more unit of output.

marginal private benefits (*MPB*) The extra or additional benefit received by consumers when they consume one more unit of a good.

marginal private costs (*MPC*) The extra or additional costs to producers of producing one more unit of a good.

marginal product The extra or additional output that results from one additional unit of a variable input (such as labour).

marginal propensity to consume (*MPC*) The fraction of additional income spent on domestically produced goods and services. Determines the size of the Keynesian multiplier; the larger the *MPC*, the larger the multiplier.

marginal propensity to import (*MPM*) The fraction of additional income spent on imports. The larger the *MPM*, the smaller the Keynesian multiplier.

marginal propensity to save (*MPS*) The fraction of additional income that is saved. The larger the *MPS*, the smaller the Keynesian multiplier.

marginal propensity to tax (*MPT*) The fraction of additional income that is paid as taxes. The larger the *MPT*, the smaller the Keynesian multiplier.

marginal revenue The additional revenue arising from the sale of an additional unit of output.

marginal social benefits (*MSB*) The extra or additional benefits to society of consuming one more unit of a good; are equal to marginal private benefits (*MPB*) when there are no consumption externalities.

marginal social costs (*MSC*) The extra or additional costs to society of producing one more unit of a good; are equal to marginal private costs (*MPC*) when there are no production externalities.

marginal tax rate The tax rate paid on additional income; refers to the tax rate that applies to the highest tax bracket of an individual's personal income.

marginal utility (MU) The extra or additional utility received from consuming one more unit of a good.

market Any kind of arrangement where buyers and sellers of a particular good, service or resource are linked together to carry out an exchange.

market concentration The degree to which a market is dominated by a small number of large firms. The smaller the number of firms controlling a market, the greater the market concentration. It is measured by the *concentration ratio*.

market demand Refers to the sum of all individual consumer demands for a good or service.

market equilibrium Occurs where quantity demanded is equal to quantity supplied, and there is no tendency for the price or quantity to change.

market failure Occurs when the market fails to allocate resources efficiently, or to provide the quantity and combination of goods and services mostly wanted by society. Market failure results in allocative inefficiency, where too much or too little of goods or services are produced and consumed from the point of view of what is socially most desirable.

market power Refers to the control that a seller may have over the price of the product it sells; it is the ability of a firm to charge a price greater than marginal cost, or $P>MC$.

market share Refers to the percentage of total sales in a market that is earned by a single firm; it may be a goal of some firms to maximise market share, or to make it as large as possible.

market supply Refers to the sum of all individual firm supplies of a good or service.

market-based supply-side policy Any policy based on promoting well-functioning, competitive markets in order to influence the supply-side of the economy, usually to shift the *LRAS* curve to the right, increase potential output and achieve long term economic growth; include labour market reforms, competition policies and incentive-related policies. May be contrasted with *interventionist supply-side policy*.

market-oriented policy A policy in which government intervention is limited, economic decisions are made mainly by the private decision-makers (firms and consumers) and the market has significant freedom to determine resource allocation; to be contrasted with *interventionist policy*.

Marshall–Lerner condition A condition stating when depreciation or devaluation of a country's currency will lead to an improvement in that country's balance of trade: the sum of the price elasticities of demand for imports and exports must be greater than 1 for the trade balance to improve (for a trade deficit to become smaller). This usually holds over the longer term, but not in the shorter term (see *J-curve*).

maximum price See *price ceiling*.

merit goods Goods that are held to be desirable for consumers, but which are underprovided by the market. Reasons for underprovision are usually that the goods have *positive consumption externalities*; in addition, consumers with low incomes may be unable afford them (and so do not demand them), or there is consumer ignorance about the benefits of the goods.

microeconomics The branch of economics that examines the behaviour of individual decision-making units, consumers and firms; is concerned with consumer and firm behaviour and how their interactions in markets determine prices in goods markets and resource markets.

microfinance Programmes to provide credit (loans) in small amounts to people who do not ordinarily have access to credit due to lack of collateral; also known as microcredit. These are very important in developing countries as a strategy to help poor people climb out of poverty.

minimum income standards A method to measure poverty consisting of ongoing research on what people in a population believe are the essentials for a minimum acceptable standard of living that allows people to participate in society; is used to create a basket of goods needed to achieve this minimum.

minimum lending rate The interest rate charged by the central bank when it lends funds to commercial banks (according to UK terminology); has different names in different countries, for example *refinancing rate* in the European Union, *discount rate* in the United States, *base rate* in the United Kingdom.

minimum price See *price floor*.

minimum reserve requirement A legally determined fraction of total deposits of commercial banks that must be kept within their vaults, which cannot be lent out.

minimum wage A minimum price of labour (the 'wage') set by governments in the labour market, in order to ensure that low-skilled workers can earn a wage high enough to secure them with access to basic goods and services. It is a type of *price floor*.

mixed economy An economy that combines the command approach (government decision-making) with the market approach (private sector decision-making) to resource ownership, decision-making and rationing.

mobile banking Refers to the use of mobile phones and the internet to pay bills and to receive or pay money, meeting the needs of users for easier banking transactions; is playing an important role in reducing poverty in developing countries.

model A simplified representation of something in the real world, showing only the important aspects of the real world being investigated, ignoring unnecessary details.

monetarist/new classical model Actually includes two different models of the macroeconomy (the monetarist and the new classical); both are based on the following principles: the importance of the price mechanism in co-ordinating economic activities, the concept of competitive market equilibrium, and thinking about the economy as a harmonious system that automatically tends toward full employment.

monetary policy Policy carried out by the central bank, aiming to change interest rates in order to influence aggregate demand; it is a type of *demand-side policy*, or *demand management*.

monetary union A high form of economic integration, involving the adoption by a group of countries of a single currency, such as some of the countries of the European Union ('euro zone' countries) that have adopted the euro. Monetary union in addition involves the adoption of a common monetary policy carried out by a single central bank, which is necessitated by the use of a single currency.

money Anything that is acceptable as payment for goods and services; more precisely, money consists of currency (coins and paper money) and checking accounts.

money creation Refers to the process by which commercial banks create new money when they make loans.

monopolistic competition One of the four market structures, with the following characteristics: a large number of firms; substantial control over market price; product differentiation; no barriers to entry. Examples include the shoe, clothing, detergent, computer, publishing, furniture and restaurant industries.

monopoly One of the four market structures, with the following characteristics: a single or dominant large firm in the industry; significant control over price; produces and sells a unique product with no close substitutes; high barriers to entry into the industry. Examples include telephone, water and electricity companies in areas where they operate as a single supplier (these are *natural monopolies*).

moral hazard Refers to situations where one party takes risks, but does not face the full costs of these risks because the full costs of the risks are borne by the other party; often arises in connection with insurance; is a form of *asymmetric information* causing market failure.

Multidimensional Poverty Index (MPI) A composite indicator that measures poverty in three dimensions: health, education and living standards, each of which reflects deprivations (essential things people don't have).

multilateral development assistance Lending to developing countries for the purpose of assisting their development on non-concessional terms (market rates of interest and repayment periods) by multilateral organisations, i.e. organisations composed of many countries, including development banks such as the World Bank, and the International Monetary Fund; to be contrasted with *foreign aid*.

multilateral trade agreement A trade agreement (or agreement to lower international trade barriers) between many countries; at the present time these are mainly carried out within the framework of the *World Trade Organization (WTO)*, and involve agreements between WTO member countries. May be contrasted with *bilateral trade agreement* and *regional trade agreement*.

multinational corporation (MNC) A firm involved in *foreign direct investment (FDI)*; it is a firm that is based in one country (the home country) and that undertakes productive investments in another country (the host country) with control of at least 10 per cent of the firm in the host country.

multiplier See *Keynesian multiplier*.

national debt See *government debt*

national income accounting Measurement of an economy's national income and output as well as other measures of economic performance by specialised statistical services in every country.

national income statistics Statistical data used to measure national income and output and other measures of economic performance.

national income The total income of an economy, consisting of factor payments or the sum of wages, interest, rent plus profit, often used interchangeably with the value of aggregate output, particularly in the context of macroeconomic models (such as the *AD-AS* model).

national output Total output produced by an economy, also known as aggregate output, often measured by *real GDP*.

natural monopoly A single firm (a monopoly) that can produce for the entire market at a lower average cost than two or more smaller firms. This happens when the market demand for the monopolist's product is within the range of falling long-run average cost, where there are *economies of scale*. Examples include telephone, water and electricity companies in areas where they operate as a single supplier.

natural rate of unemployment Unemployment that occurs when the economy is producing at its potential or full employment level of output (real GDP), and is equal to the sum of structural, frictional plus seasonal unemployment.

necessities Goods that are necessary or essential: they have a *price inelastic demand* ($PED<1$) and *income inelastic demand* ($YED<1$). To be contrasted with *luxuries*.

negative consumption externality A negative externality caused by consumption activities, leading to a situation where marginal social benefits are less than marginal private benefits ($MSB < MPB$); see also *externality* and *negative externality*.

negative externality A type of externality where the side-effects on third parties are negative or harmful. To be contrasted with *positive externality*; see also *externality*.

negative production externality A negative externality caused by production activities, leading to a situation where marginal social costs are greater than marginal private costs ($MSC > MPC$); see also *externality* and *negative externality*.

net exports Refers to the value of exports minus the value of imports.

nominal GDP Gross domestic product measured in terms of current (or nominal) prices, which are prices prevailing at the time of measurement. Does not account for changes in the price level; to be distinguished from *real GDP*.

nominal GNI Gross product national income in terms of current (or nominal) prices, which are prices prevailing at the time of measurement. Does not account for changes in the price level; to be distinguished from *real GNI*

nominal interest rate An interest rate that prevails at any moment in time, which does not take changes in the price level into account; to be distinguished from *real interest rate*.

nominal value Value that is in money terms, measured in terms of prices that prevail at the time of measurement, and that does not account for changes in the price level; to be distinguished from *real* values.

non-collusive oligopoly A type of oligopoly where firms do not make agreements among themselves (i.e. do not collude) in order to fix prices or collaborate in some way.

non-excludable A characteristic of some goods where it is not possible to exclude someone from using a good, because it is not possible to charge a price; it is one of the two characteristics of public goods (to be contrasted with *excludable*). See also *non-rivalrous*.

non-governmental organisations (NGOs) Non-profit organisations that provide a very wide range of services and humanitarian functions; in developing countries they provide foreign aid, all of which takes the form of grants (there are no loans involved). They are involved with an enormous range of activities, including emergency assistance, promotion of sustainable development, poverty alleviation, protection of child health, provision of technical assistance, and many more.

non-price competition Occurs when firms compete with each other on the basis of methods other than price (such as product differentiation, advertising and branding). Non-price competition occurs in oligopoly and monopolistic competition.

non-price determinants of demand The variables (other than price) that can influence demand, and that determine the position of a demand curve; a change in any determinant of demand causes a shift of the demand curve.

non-price determinants of supply The variables (other than price) that can influence supply, and that determine the position of a supply curve; a change in any determinant of supply causes a shift of the supply curve.

non-produced, non-financial assets A part of the capital account of the balance of payments, which includes a variety of items such as mineral rights, forestry rights, fishing rights and airspace.

non-rivalrous A characteristic of some goods where the consumption of the good by one person does not reduce consumption by someone else; it is one of the two characteristics of public goods (to be contrasted with *rivalrous*). See also *non-excludable*.

normal good A good the demand for which varies positively (or directly) with income; this means that as income increases, demand for the good increases.

normal profit The minimum amount of revenue that a firm must receive so that it keeps the business running (as opposed to shutting down). Normal profit is earned when abnormal profit is zero, or when average revenue is equal to average cost, or price is equal to average cost.

normative economics The body of economics based on normative statements, which involve beliefs, or value judgements about what ought to be. Normative statements cannot be true or false; they cannot be refuted, they can only be assessed relative to beliefs and value judgements. Normative economics forms the basis of economic policies; to be contrasted with *positive economics*.

nudge Part of *behavioural economics*, it is a method designed to influence consumers' choices in a predictable way, without offering financial incentives or imposing sanctions, and without limiting choice.

OECD Better Life index An alternative measure to standard national income accounting that measures economic well-being in a number of dimensions that take into account quality of life.

official borrowing Refers to government borrowing from abroad; is an item in the *financial account* of a country's balance of payments.

Official Development Assistance (ODA) The most important part of *foreign aid*, referring to foreign aid that is offered by countries or by international organisations composed of a number of countries (it does not include aid offered by non-governmental organisations).

oligopoly One of the four market structures, with the following characteristics: small number of large firms in the industry; firms have significant control over price; firms are interdependent; products may be differentiated or homogeneous; there are high barriers to entry. Examples include the car industry, airlines, electrical appliances (differentiated products) and the steel, aluminium, copper, cement industries (homogeneous products).

open market operations A tool of monetary policy whereby the central bank buys and sells bonds to commercial banks in order to influence the money supply and interest rate.

opportunity A set of circumstances making it possible for someone to do something.

opportunity cost The value of the next best alternative that must be given up or sacrificed in order to obtain something else.

output approach A method used to measure the value of aggregate output of an economy, which calculates the value of all final goods and services produced in the country within a given time period. As suggested by the circular flow model, it is equivalent to measurement by the *expenditure approach* and the *income approach.*

overvalued currency A currency whose value is higher than its free-market value; may occur if the exchange rate is fixed (or pegged), or in a managed exchange rate system, but not in a freely floating exchange rate system. To be contrasted with *undervalued currency*.

payoff matrix In game theory, this shows all possible combinations of outcomes of different decisions made by the players in game theory

per capita Per person, or per head. For example, GDP *per capita* is total GDP divided by the number of people in the population.

perfect competition One of the four market structures, with the following characteristics: a large number of small firms; no control over price; all firms sell a homogeneous product; no barriers to entry, perfect information and perfect resource mobility. Close examples include agricultural commodity markets and the foreign exchange market.

perfectly elastic demand Refers to a price elasticity of demand value of infinity, and arises in the case of a horizontal demand curve indicating that any quantity can be bought at that price; see *price elasticity of demand.*

perfectly elastic supply Refers to a price elasticity of supply value of infinity, and arises in the case of a horizontal supply curve indicating that any amount can be sold at that price; see *price elasticity of supply*.

perfectly inelastic demand Refers to a price elasticity of demand value of zero, and arises in the case of a vertical demand curve indicating that any amount can be sold at that price; see *price elasticity of demand.*

perfectly inelastic supply Refers to a price elasticity of supply value of zero, and arises in the case of a vertical supply curve; see *price elasticity of supply*.

personal income taxes Taxes paid by households or individuals in households on all forms of income, including wages, rental income, interest income, and dividends (income from ownership of shares in a company).

Phillips curve A curve showing the relationship between unemployment and inflation. The short-run Phillips curve shows a negative relationship between the rate of inflation and the unemployment rate. The long-run Phillips curve is vertical at the natural rate of unemployment, indicating that there is no negative relationship between inflation and unemployment.

Pigouvian taxes (or Pigovian taxes) *Indirect taxes* designed to correct negative externalities of production or consumption.

planned economy An economy where all economic decision-making is carried out by government planning (based on *command and control* methods); rather than reliance on prices determined in markets; to be contrasted with a *free market economy*.

portfolio investment Financial investment, including investment in stocks and bonds. Appears as an item in the *financial account* of the balance of payments.

positive consumption externality A positive externality caused by consumption activities, leading to a situation where marginal social benefits are greater than marginal private benefits (*MSB* > *MPB*); see also *externality* and *positive externality*.

positive economics The body of economics based on positive statements, which are about things that are, were or will be. Positive statements may be true or false so they can be refuted. They form the basis of theories and models that try to explain economic events. To be contrasted with *normative economics*.

positive externality A type of externality where the side-effects on third parties are positive or beneficial, also known as 'spillover benefits'; to be contrasted with *negative externality*; see also *externality*.

positive production externality A positive externality caused by production activities, leading to a situation where marginal social costs are less than marginal private costs (*MSC* < *MPC*); see also *externality* and *positive externality*.

potential output (potential GDP) The level of output (real GDP) that can be produced when there is 'full employment', meaning that unemployment is equal to the natural rate of unemployment; also known as the *full employment level of output*.

poverty The inability of an individual or family to afford an adequate standard of goods and services; this standard may be absolute or relative; see *absolute poverty* and *relative poverty*.

poverty cycle (trap) Arises when low incomes result in low (or zero) savings, permitting only low (or zero) investments in physical, human and natural capital, and therefore low productivity of labour and of land, which in turn gives rise to low, if any, growth in income (sometimes growth may be negative), and hence low incomes once again. Poverty is transmitted from generation to generation.

poverty line An income level that is just enough to ensure a family with the minimum necessary food, housing, clothing, medical needs.

poverty trap See *poverty cycle*.

preferential trade agreement An agreement between two or more countries to lower trade barriers between them on particular products, resulting in easier access to the markets of other members for the selected products, compared with the access of countries that are not members.

price ceiling A maximum price set by the government for a particular good, meaning that the price that can be legally charged by the sellers of the good cannot be higher than the legal maximum price. Results in a *shortage* of the product.

price competition Occurs when a firm lowers its price to attract customers away from rival firms, thus increasing sales at the expense of other firms. May occur in the case of monopolistic competition or oligopoly, but not in perfect competition (or monopoly).

price control Setting of minimum or maximum prices by the government (or private organisations) so that prices are unable to adjust to their equilibrium level determined by demand and supply. Price controls result in shortages or surpluses.

price deflator A price index used to convert nominal values into real values, such as nominal GDP into real GDP, known as the 'GDP deflator'

price elastic demand Relatively high responsiveness of quantity demanded to changes in price; *PED* (price elasticity of demand) > 1. See *price elasticity of demand*.

price elastic supply Relatively high responsiveness of quantity supplied to changes in price; *PES* (price elasticity of supply) > 1. See *price elasticity of supply*.

price elasticity of demand (*PED*) A measure of the responsiveness of the quantity of a good demanded to changes in its price, given by the percentage change in quantity demanded divided by the percentage change in price. In general, if there is a large responsiveness of quantity demanded ($PED > 1$), demand is referred to as being elastic; if there is a small responsiveness ($PED < 1$), demand is inelastic.

price elasticity of supply (*PES*) A measure of the responsiveness of the quantity of a good supplied to changes in its price, given by the percentage change in quantity supplied divided by the percentage change in price. In general, if there is a large responsiveness of quantity supplied ($PES > 1$), supply is referred to as being elastic; if there is a small responsiveness ($PES < 1$), supply is inelastic.

price floor A minimum price set by the government for a particular good, meaning that the price that can be legally charged by the sellers of the good cannot be lower than the legal minimum price. Results in a *surplus* of the product.

price inelastic demand Relatively low responsiveness of demand to changes in price; *PED* (price elasticity of demand) < 1. See *price elasticity of demand*.

price inelastic supply Relatively low responsiveness of supply to changes in price; *PES* (price elasticity of supply) < 1. See *price elasticity of supply*.

price mechanism The system where prices are determined by demand and supply in competitive markets, resulting from the free interaction of buyers (demanders) and sellers (suppliers); these interactions determine the allocation of resources.

price war Competitive price-cutting by firms; usually in oligopoly. As each one tries to capture market shares from rival firms; results in lower profits for firms.

price-maker Any firm that has the ability to influence the price of its product; arises whenever the firm faces a downward slopping demand curve; applies to varying degrees in all market structures except perfect competition.

price-taker A firm that accepts a price at which it sells its product. Refers to firms in perfect competition, which being small and numerous have no control over price, and therefore accept the price determined in the market.

prices as incentives The ability of prices, and changes in prices, to convey information to consumers and producers that motivates them to respond by offering them incentives to behave in their best-self-interest; firms according to the law of supply and consumers according to the law of demand; compare with *prices as signals*, which together with prices as incentives lead to an efficient allocation of resources (assuming no market failures).

prices as signals The ability of prices, and changes in prices, to communicate information to consumers and producers about the existence of excess demand or excess supply, on the basis of which they make economic decisions, which together with prices as incentives lead to an efficient allocation of resources (assuming no market failures).

primary commodity Any product that is produced in the *primary sector*, which includes agriculture, forestry, fishing and the extractive industries; also known as 'commodity'.

primary products All products produced in the primary sector of an economy; also known as commodities; see *primary sector*.

primary sector A part of an economy that is dominated by agriculture, also including fishing, forestry and all extractive activities (such as mining).

privatisation A transfer of ownership from the public sector (the government) to the private sector, i.e. private owners.

producer surplus Refers to the difference between the price received by firms for selling their good and the lowest price they are willing to accept to produce the good. In a diagram, it is shown as the area under the price received by producers and above the supply curve up to the quantity sold.

product differentiation Occurs when each firm in an industry tries to make its product different from those of its competitors; usually in order to create some market power (monopoly power); products can be differentiated by physical differences, quality differences, location, services and product image.

production possibilities All possible combinations of the maximum amounts of two goods that can produced by an economy, given fixed and unchanging resources and technology, when there is full employment of resources and efficiency in production.

production possibilities curve (*PPC*) A curve showing *production possibilities*.

profit A payment, per unit of time, to owners of entrepreneurship/management (a factor of production). See *abnormal profit* and *normal profit*.

profit maximisation The goal of firms, according to the standard theory of the firm. It involves making profit as large as possible, and is achieved by producing the level of output where the difference between total revenue and total costs is the largest, or where marginal cost is equal to marginal revenue.

progressive taxation Taxation where, as income increases, the fraction of income paid as taxes increases; there is an increasing average tax rate.

property rights The laws and regulations that define rights to ownership, use and transfer of property.

proportional taxation Taxation where, as income increases, the fraction of income paid as taxes remains constant; there is a constant average tax rate.

public good A good that is *non-rivalrous* (its consumption by one person does not reduce consumption by someone else) and *non-excludable* (it is not possible to exclude someone from using the good). Since it is not possible to exclude someone from using the good even though they do not pay for it, firms do not have an incentive to produce it. Public goods are therefore provided by the government. This is a type of market failure.

purchasing power parity (PPP) exchange rates Special exchange rates between currencies that makes the buying power of each currency equal to the buying power of US$1, and therefore equal to each other. The use of PPP exchange rates to convert GDP (or GNI or any other output or income variable) eliminates the influence of price level differences across countries and is very important for making cross-country comparisons.

quantitative easing A tool used by central banks to increase the money supply in the economy and facilitate commercial bank lending as part of expansionary monetary policy; involves the buying of bonds by the central bank on a large scale.

quintiles Division of a population into five equal groups with respect to the distribution of a variable, such as income; for example, the lowest income quintile refers to 20% of the population with the lowest income.

quota A type of trade protection that involves setting a legal limit to the quantity of a good that can be imported over a particular time period (typically a year). (More generally, a 'quota' is a limited or fixed number of things.)

rate of interest See *interest rate*.

rational consumer choice In the microeconomic theory of consumer behavior, consumers make choices about what goods and services to buy based on the following assumptions. All consumers (i) have consistent tastes and preferences, (ii) have perfect information, and (iii) try to maximise their *utility* (make it as great as possible).

rational producer behaviour The basis of standard theory of the firm according to which firms try to maximise profit.

rationing A method used to apportion or divide something up between its interested users; in economics it refers to the method used to make resource allocation and output/income distribution decisions.

real GDP Gross domestic product (GDP) measured in constant prices, i.e. prices that prevail in one particular year, called a 'base year'; this is useful for making comparisons of changes in GDP over time that have taken into account the influence of changing prices; to be distinguished from nominal GDP.

real GNI Gross national income (GNI) measured in constant prices, i.e. prices that prevail in one particular year, called a 'base year'; this is useful for making comparisons of changes in GNI over time that have taken into account the influence of changing prices; to be distinguished from nominal GNI.

real interest rate The interest rate that has been corrected for inflation; real interest rate = nominal interest rate – rate of inflation.

real value Value that has eliminated the influence of changes in the price level.

recession An economic contraction, where there is falling real GDP (negative growth) and increasing unemployment of resources which last six months or more.

recessionary gap A situation where real GDP is less than potential GDP, and unemployment is greater than the natural rate of unemployment; it arises when the *AD* curve intersects the *SRAS* curve at a lower level of real GDP than potential GDP. Also known as 'deflationary gap'.

redistribution of income Refers to changing the distribution of income, giving rise to a new distribution.

refinancing rate See *minimum lending rate*.

refutation In the sciences and social sciences it is the idea that it must be possible to *refute or disprove* a hypothesis or a theory by subjecting it to empirical testing.

regional trade agreement A trade agreement (or agreement to lower international trade barriers) between several countries that are located within a geographical region (such as NAFTA, or North American Free Trade Agreement). May be contrasted with *bilateral trade agreement* and *multilateral trade agreement*.

regressive taxation Taxation where, as income increases, the fraction of income paid as taxes decreases; there is a decreasing average tax rate.

relative poverty The inability of an individual or a family to afford an adequate standard of goods and services, where the adequate standard is relative and changes over time; this standard is defined as what is 'typical' in a society, taken to be a particular percentage (often 50%) of society's median income. As incomes increase and the median income rises, the standard also rises.

remittances A transfer of money from one country to another, in most cases by foreign workers who send money from their earnings in the country of residence to their family in their home country.

reserve assets Refers to foreign currency reserves that the central bank maintains and can buy or sell to influence the value of the country's currency exchange rate; in the balance of payments appears as an item in the *financial account*.

resource allocation Assigning available resources, or factors or production, to specific uses chosen among many possible and competing alternatives; involves answering the *'what to produce'* and *'how to produce'* basic economic questions.

resources Factors of production, used by firms as inputs in the production process; see *factors of production*.

restricted choice A term in *behavioural economics*, it is a choice that is limited by the government or other authority.

revaluation (of a currency) Refers to an increase in the value of a currency in the context of a fixed or pegged exchange rate system (compare with *appreciation*, which is an increase in currency value in the contest of a floating or managed exchange rate system).

revenues The payments that firms receive when they sell their goods and services.

rivalrous A characteristic of a good according to which its consumption by one person reduces its availability for someone else; most goods are rivalrous. It is one of the two characteristics of 'private goods'. See also *excludable*.

rules of thumb A term from *behavioural economics*, are simple guidelines based on experience and common sense, simplifying complicated decisions that would have to be based on the complex consideration of every possible choice.

satisficing A goal of firms to achieve satisfactory results, rather than pursue a single maximising objective, such as to maximise profits or revenues; based on the argument that large, modern firms have numerous objectives which may partly overlap or conflict, thus forcing them to compromise and reconcile conflicts, rather than pursue optimal results.

scarcity One of the key concepts of this course; it is the condition in which available resources (land, labour, capital, entrepreneurship) are limited; they are not enough to produce everything that human beings need and want. *One of the key concepts of this course*

screening In the event of asymmetric information, this is a method used by the buyer when the buyer has limited information; for example the buyer may research the seller or product online, or may informally ask friends in order to get more information.

seasonal unemployment A type of unemployment that occurs when the demand for labour in certain industries changes on a seasonal basis because of variations in needs; for example, farm workers are hired during peak harvesting seasons and let off for the rest of the year.

short run (in macroeconomics) In macroeconomics, it is the period of time during which the prices of resources, particularly the price of labour (wages) do not change (they are constant).

short run (in microeconomics) In microeconomics, it is a time period during which at least one input is fixed and cannot be changed by the firm.

short-run aggregate supply The total quantity of goods and services (real output or real GDP) produced in an economy in the *short run* (when wages and other resource prices are held constant), *ceteris paribus*.

short-run aggregate supply (SRAS) curve A curve showing the relationship between real GDP produced and the economy's price level when wages (and other resource prices) are held constant, *ceteris paribus*; the SRAS curve is upward sloping.

short-run equilibrium level of output In the monetarist/new classical model, it is the level of output (real GDP) determined by the intersection of the aggregate demand and short run aggregate supply curves; in the Keynesian model, it is the level of output determined by the intersection of the aggregate demand and Keynesian aggregate supply curves. In both models, equilibrium may occur where there is (i) a recessionary (deflationary) gap, (ii) an inflationary gap, or (iii) full employment output.

short-run Phillips curve See *Phillips curve*.

short-term fluctuations Alternating periods of expansion (increasing real output) and contraction (decreasing real output), which occur in the *business cycle*.

short-term growth Growth of an economy (growth in real output) over relatively short periods of time; shown by (i) a movement of a point inside the production possibilities curve (PPC) to a point closer to the PPC (see *actual growth*), or (ii) by upturns in the business cycle usually due to increases in aggregate demand.

shortage In the context of demand and supply, is the amount by which quantity demanded is greater than quantity supplied.

signalling function of price See *prices as signals*.

signalling In the event of asymmetric information this is a method used by the seller when the seller has more information, which attempts to convince the buyer that the product is of good quality; for example use of warranties or establishment of brand names.

social enterprise A type of commercial organisation that aims to achieve particular social goals in an effort to improve people's well-being and promote social change; may be either for-profit or not-for-profit organisations.

socially optimum output Refers to a level of output that is the best from the socially point of view, determined by the achievement of allocative efficiency (or economic efficiency); occurs when marginal social benefits are equal to marginal social costs ($MSB = MSC$).

social science Any academic discipline that studies human society and social relationships, concerned with discovering general principles describing how societies function and are organised; include anthropology, economics, political science, psychology, sociology and others.

social surplus The sum of consumer and producer surplus; it is maximum in a competitive market with no market failures. See *consumer surplus* and *producer surplus*.

specialisation Occurs when a firm or a country concentrates production on one or a few goods and services. In international trade theory, specialisation forms the basis for the gains from trade, arising when countries specialise according to their comparative advantage, and when firms specialise in production of goods and services that offer them economies of scale.

speculation (currency) Buying and selling of something in the hope of making a profit. 'Currency speculation' involves buying and selling currencies based on expectations of changes in the value of a currency (exchange rates) in order to make a profit in the future.

structural unemployment A type of unemployment that occurs as a result of technological changes and changing patterns of demand (causing changes in demand for labour skills), as well as changes in the geographical location of jobs, and labour market rigidities (lack of *labour market flexibility*).

subsidy An amount of money paid by the government to firms for a variety of reasons: to prevent an industry from failing, to support producers' incomes, or as a form of protection against imports (due to the lower costs and lower prices that arise from the subsidy). A subsidy given to a firm results in a higher level of output and lower price for consumers. May also be paid to consumers as financial assistance or for income redistribution.

substitute goods Two or more goods that satisfy a similar need, so that one good can be used in place of another. If two goods are substitutes, an increase in the price of one leads to an increase in the demand for the other.

substitution effect Part of an explanation of the law of demand; there is an inverse relationship between price and quantity demanded because as price falls consumers substitute the now less expensive good for other products (the other part is the *income effect*).

sunrise industry See *infant industry*.

supply Indicates the various quantities of a good that firms (or a firm) are willing and able to produce and sell at different possible prices during a particular time period, *ceteris paribus* (all other things being equal).

supply curve A curve showing the relationship between the price of a good and the quantity of the good supplied, *ceteris paribus* (all other things equal); see *supply*.

supply of money The amount of money in circulation, determined by the central bank of a country; in combination with the demand for money, the supply of money determines the equilibrium rate of interest. (In practice central banks have difficulties in accurately controlling the supply of money.)

supply-side policies A variety of policies that focus on aggregate supply, namely factors aiming to shift the long-run aggregate supply ($LRAS$) curve to the right, in order to achieve long-term economic growth. They do not attempt to stabilise the economy (i.e. to reduce the severity of the business cycle). There are two major categories of supply-side policies: market-based and interventionist. To be contrasted with *demand-side policies*.

surplus In general, this is the excess of something over something else to which it is being compared. (i) In the context of demand and supply, it is the extra supply that results when quantity supplied is greater than quantity demanded. (ii) In the case of consumer and producer surplus, it is the extra benefit consumers get by paying less for a good than the amount they are willing to pay, or the extra benefit producers get by receiving a higher price for the good they are selling than the price they are willing to receive. (iii) In the case of the government budget, a surplus occurs when government revenues are greater than government expenditures. (iv) In the balance of payments, a surplus in an account occurs when the credits (inflows of money from abroad) are larger than the debits (outflows of money to other countries).

sustainability One of the key concepts of this course; refers to maintaining the ability of the environment and the economy to continue to produce and satisfy needs and wants into the future for future generations; depends crucially on the preservation of the environment over time. Related to the concept of sustainable development, meaning 'Development which meets the needs of the present without compromising the ability of future generations to meet their own needs' (according to the Brundtland Commission). *One of the key concepts of this course*

sustainable debt A level of debt where the borrowing government has enough revenues to meets it debt obligations (payment of interest and repayment of borrowed amount) without overdue debt payments, while also allowing economic growth at an acceptable rate.

sustainable development Development involving the use of resource in the present to meet present needs and wants in ways that do not deplete or degrade them, so that future generations will have enough resources to meet their own needs; refers to growth and development that does not deplete or degrade resources.

Sustainable Development Goals (SDGs) A set of 17 goals developed at the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012; continue and expand upon the work begun years earlier by the Millennium Development Goals (MDGs), which ran until 2015. Are used by international organisations and national governments in their fight against poverty and efforts to achieve sustainable economic development.

tariffs Taxes on imported goods; they are the most common form of trade restriction. Tariffs may serve two purposes: to protect a domestic industry from foreign competition (a protective tariff); or to raise revenue for the government (a revenue tariff).

theory A general explanation of a set of interrelated events, usually (though not always) based on several hypotheses that have been tested successfully tire to explain why certain events happen.

theory of absolute advantage If countries specialise in and export the goods in which they have an *absolute advantage* (can produce with fewer resources), there results an improvement in resource allocation and increased production and consumption in each country.

theory of comparative advantage As long as opportunity costs in two (or more) countries differ, it is possible for all countries to gain from specialisation and trade according to their *comparative advantage*; this results in an improvement in the global allocation of resources, resulting in greater global output and consumption. Is a more powerful explanation of the gains from trade than the theory of absolute advantage.

total costs The total costs incurred by a firm that undertakes production of something.

total product The total quantity of output produced by a firm.

total revenue The amount of money received by firms when they sell a good (or service); it is equal to the price (P) of the good times the quantity (Q) of the good sold. Therefore total revenue = $P \times Q$.

tradable permits Permits that can be issued to firms by a government authority or an international body, and that can be traded (bought and sold) in a market, the objective being to limit the total amount of pollutants emitted by the firms. If a firm can produce its product by emitting a lower level of pollutants than the level set by its permits, it can sell its extra permits in the market. If a firm needs to emit more pollutants than the level set by its permits, it can buy more permits in the market.

trade creation The replacement of higher cost products (imported or domestically produced) by lower cost imports that results when a trading bloc is formed and trade barriers are removed. (To be contrasted with *trade diversion*.)

trade diversion The replacement of lower cost products (imported or domestically produced) by higher cost imports that results when a trading bloc is formed and trade barriers are removed. (To be contrasted with *trade creation*.)

trade liberalisation The policy of liberalising (freeing up) international trade by eliminating trade protection and barriers to trade (i.e. tariffs, quotas, etc.).

trade protection Government intervention in international trade through the imposition of trade restrictions (or barriers) to prevent the free entry of imports into a country and protect the domestic economy from foreign competition.

trading bloc A group of countries that have agreed to reduce tariff and other barriers to trade for the purpose of encouraging the development of free or freer trade and co-operation between them. See also free trade area, customs union and common market.

tragedy of the commons A story about cattle grazing on commonly owned land, illustrating *rivalry* and *non-excludability* of common pool resources as the land becomes overused and degraded.

transactions in non-produced, non-financial assets Refers to one of the two items in the *capital account* of the *balance of payments*, including the purchase or use of natural resources that have not been produced (land, mineral rights, forestry rights, water, fishing rights, airspace and electromagnetic spectrum); see *capital account*.

transfer payments Payments made by the government to individuals specifically for the purpose of redistributing income, thus transferring income from those who work and pay taxes towards those who cannot work and need assistance. Groups receiving transfer payments may include older people, sick people, very poor people, children of poor families, unemployed people and others; referred to as 'vulnerable groups'.

undervalued currency A currency whose value is lower than its free-market value; may occur if the exchange rate is fixed (or pegged), or in a managed exchange rate system, but not in a freely floating exchange rate system. To be contrasted with *overvalued currency*.

unemployment rate A measure of the amount of unemployment in an economy, expressed as a percentage, calculated by taking the total number of unemployed people in an economy and dividing by the labour force, and multiplying by 100.

unemployment The number of unemployed people, defined as all people above a particular age (i.e. not children) who are not working and who are actively looking for a job.

unfair competition Practices that countries may use in order to gain a competitive advantage over other countries in order to unfairly increase their exports at the expense of other countries, for example maintaining an undervalued currency.

unitary *PED* A price elasticity of demand value of one; see *price elasticity of demand*.

unitary *PES* A price elasticity of supply value of one; see *price elasticity of supply*.

universal basic income A method intended to provide everyone in a country with a sum of money that they would receive regardless of any other income they may have; its purpose is to reduce income inequalities and poverty.

unsustainable production Production that uses resources unsustainably, leading to their depletion or degradation; see *sustainability*.

utility A subjective concept, it is the satisfaction that consumers gain from consuming something.

wage A payment, per unit of time, to those who provide labour; this includes all wages and salaries, as well as supplements (such as bonuses and commissions).

wealth The money or things of value that people own minus debts to banks or other financial institutions. May include savings deposits (money saved in a bank); stocks in the stock market; bonds; land, houses and other property; valuable paintings or jewellery.

wealth taxes Taxes on ownership of wealth, most commonly *property taxes*, based on the value of property owned, and inheritance taxes, based on the value of property inherited.

weighted price index A measure of average prices in one period relative to average prices in a reference period called a base period; a weighted price index is a price index that 'weights' the various goods and services according to their relative importance. In the consumer price index (CPI), goods and services are weighted according to their relative importance in consumer spending.

welfare In general, refers to the well-being of a population. In microeconomics, it is measured by the amount of social surplus (consumer and producer surplus) that is generated in a market. Welfare is greatest, i.e. social surplus is greatest, in competitive market equilibrium when there are no externalities, and marginal social benefits are equal to marginal social costs ($MSB = MSC$).

welfare loss Refers to loss of a portion of social surplus that arises when marginal social benefits are not equal to marginal social costs ($MSB \neq MSC$), due to market failure.

what/how much to produce One of the three basic economic questions; refers to the choice that must be made in response to the question what particular goods and services an economy is to produced and in what quantities.

World Bank A development assistance organisation, composed of 189 member countries which are its joint owners, that extends long-term credit (loans) to developing country governments for the purpose of promoting economic development and structural change.

World Trade Organization (WTO) An international organisation that provides the institutional and legal framework for the trading system that exists between member nations worldwide, responsible for liberalising trade, operating a system of trade rules and providing a forum for trade negotiations between governments, and for settling trade disputes.