THE MIT DICTIONARY OF MODERN ECONOMICS

THIRD EDITION

edited by
DAVID W. PEARCE

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'A Writer of dictionaries – a harmless drudge.'
Samuel Johnson (1755)

'Letter to Lord Chesterfield',
Boswell, Life of Johnson.

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Preface to the First Edition

The idea for this dictionary of economics originated within the reference books division of Macmillan Press. When we were approached to put that idea into practice there was widespread agreement that there was a need for something different in this area of reference studies, despite the excellent contributions that already existed. The dominant thought was that the 'average undergraduate' (for which no entry will be found in this dictionary or, we suspect, any other) needed to be led, sometimes gently, sometimes a little more forcibly, into realms that lay beyond the conventional first year economics course. Hence the coverage of the current dictionary. It extends significantly beyond what the first year student will need. At the same time, and here we can only hope we have succeeded, it covers all that the traditional market has aimed at. In short, we felt that there was a demand for coverage of the words and phrases, concepts and institutions that a first year student might want, and more. Economics is undergoing yet another 'revolution', albeit one that it is difficult to secure great perspective on at the time of writing. We have therefore done our best. In so doing, all the authors are conscious that they have been selective in choosing entries, that the 'balance' in a book authored by no less fourteen people must inevitably be open to criticism and that they will have omitted something, somewhere which others will see as being far more important than many of the entries chosen. To this end all criticism and suggestions for improvement are welcomed. For the moment, we believe that the dictionary we offer is unique, tempting and useful.

Each entry contains cross references except in the few cases where a word or phrase is 'self contained'. To build a picture of a given area of economics, the reader is therefore encouraged to pursue the cross references indicated at the end of each entry. We have also included may business terms which some will argue do not belong in a dictionary of economics. The growth of courses in business finance and analysis, however, testifies to the need to make such an excursion in a dictionary of this kind. We have also included 'potted' bibliographies of celebrated economists. It is not too difficult to decide who deserves mention when they are dead – although students of the history of thought will dispute that statement– but it proved decidedly controversial as to whom among the living should deserve an entry. We therefore followed a general rule, again which some will dispute, that those who have received the Nobel Prize for Economics should automatically gain mention. Others, perhaps no less deserving, receive mention because they have lent their names to a particular growth model, a theory of this or a theory of that. We have not eschewed the use of simple mathematical symbolism. When used, it is explained in each entry. Where the axe had to fall, for reasons of time and space, was in the area of institutions. International institutions of note are therefore included, but institutions peculiar to one country are generally but not always excluded. It proved impossible, for example, to explain some words in current usage without reference to UK banking institutions. Against this, we are very conscious that many important Acts of Parliament, Royal Commissions, committees of investigation and so on are excluded. If future editions allow, that is one area we would seek to remedy.

The ready enthusiasm with which we greeted the initial idea for a new dictionary of economics contrasted somewhat with the falling tempers that characterized the indecent haste of the final preparation of the manuscript. That most of the ill temper focused on the so-called 'editor' was predictable, and apologies are owed to all other authors in this respect. The work share in the dictionary is virtually impossible to allocate. Everyone gave freely of their time and it is best to think of each author as being equally responsible, or equally at fault. The more than occassionally bewildering task of typing the manuscript was begun by

Mrs Pearl Watson in truly efficient style, subsequently to be equalled by Mrs Betty Jones. That the task was beyond one secretary towards the end was quickly realized. Entries flew faster into the 'in tray' than they appeared in the 'out tray'. Winnie Sinclair, Phyl McKenzie, Aileen Fraser, June Begg and Sandra Galbraith all shared the final dash to the final furlong. We owe them everything in terms of seeing the book actually materialize. We also owe a debt of thanks to Shaie Selzer of Macmillan for being very patient, for extending at least one deadline and for providing the encouragement in the form of nearly threatening letters towards the end of the preparation period. It would be a miracle if such an enterprise were not full of errors and omissions. We make no claim to miracles, merely to having done the best that we can in the time available.

David W. Pearce *General Editor*

Preface to the Third Edition

This new edition had its origins in two sources. The first was the passage of time, which required the updating of many entries and the introduction of new terms. The second arose from suggestions made by the Economics Editor of the MIT Press, Robert Bolick, who must be one of the few who have read the dictionary in its entirety. As a result of Mr Bolick's suggestions this edition has a larger content relevant to the USA. This material was supplied by Professors R. Bartlett and P. King of Denison University, with whom the original authors are happy to be associated. The rest of the work was done by John Cairns, Robert Elliott, Maxwell Gaskin, Tony Harris, Ian McAvinchey and Robert Shaw.

Undoubtedly, however, the major input to this edition has been made by our secretary, Winnie Sinclair, who has always been helpful, kind and unfluttered in the face of innumerable, unreasonable demands. She is the only person to have read the dictionary several times, as well as typed it several times! Any errors which remain are certainly not her responsibility.

Robert Shaw

A

AACB.
See ASSOCIATION OF AFRICAN CENTRAL BANKS.

abatement cost. The cost of abating a nuisance such as pollution or congestion. In terms of pollution the cost curve will typically slope upwards at an increasing rate as pollution is progressively reduced. This is because it is usually comparatively cheap to 'clean up' some part of a polluted environment but extremely expensive to remove the last units of pollution. An example would be noise, where engines can be muffled thus reducing noise by a noticeable amount. Further reductions might, however, require expensive engine redesign or wholesale changes in road structures, locations etc.

ability and earnings. Measures of ability and levels of education ('schooling') are highly correlated, raising the possibility that much of the estimated return to education is in fact a return to ability. Until recently, however, it was not thought that allowance for ability much reduced the RATE OF RETURN to education. But studies of identical twins, who presumably do not differ in ability, have yielded much reduced estimates of the rate of return to education; the true rate of return may be as low as one per cent rather than the usual estimate of ten per cent and above, although there are disputes over the findings. Persistence of schooling expenditures in such circumstances might be attributable to the consumption value of education. Even so, schooling does influence earnings – even for identical twins – and thus schooling can continue to be viewed as an investment. (*See* HUMAN CAPITAL.)

ability to pay theory. An approach to taxation which states that the burden of taxation should be distributed in accordance with ability to pay. The theory is based on the concept of EQUAL SACRIFICE. Sacrifice refers to the loss of UTILITY which is incurred when tax payments are made. There are three possible measures of equal sacrifice – equal absolute, equal proportional and equal marginal (or least aggregate). No definition is obviously conceptually superior. Whether the tax system is progressive, proportional or regressive depends on which measure is employed and on the assumed slope of the MARGINAL UTILITY OF INCOME schedule(s). Any one definition is actually consistent with all three tax structures when different assumptions are made about the slope of the marginal utility of income schedule. If the latter is assumed to be declining the three measurements do not always give consistent conclusions about the appropriate tax structure. The equal marginal sacrifice definition produces the most progressive tax structure. The validity of the theory depends on the ability to make INTERPERSONAL COMPARISONS OF UTILITY. This is denied in modern WELFARE ECONOMICS. The theory, although superficially attractive, thus has several major limitations and defects.

abnormal profits.
See SUPER NORMAL PROFITS.

above the line.
See BELOW THE LINE.

abscissa. The value on the horizontal (or x) axis of a point on a two-dimensional graph. (*See also* ORDINATE.)

absenteeism. Failure to report for work although the terms of the labour contract require the worker to do so and the contract is still operational. The OVER-EMPLOYED WORKER will resort to this where control of the terms of the labour contract is lax or where sanctions for non-compliance are negligible. In particular, employers who are currently experiencing labour shortage may be reluctant to use the ultimate sanction of SACKING.

absentee landlord. An owner of land or property who lives away from his estate, collecting rents and administering his business through some intermediary or agent.

absolute advantage.
See COMPARATIVE ADVANTAGE.

absolute cost advantage. A concept referring to those advantages possessed by established firms who are as a consequence able to sustain a lower average total cost than new entrants irrespective of size of output. Examples of sources of absolute cost advantages are: control of the supply of key factor inputs, patents and superior techniques available only to established firms. (*See* BARRIERS TO ENTRY.)

absolute income hypothesis. This hypothesis states that consumption expenditures (C) are a function solely of current personal disposable income (Y_d): $C = C(Y_d)$. This view of the determinants of consumption was detailed in *The General Theory* by KEYNES who hypothesized that consumption would be functionally related to income in the following way. First, for any change in income the corresponding change in consumption would be in the same direction but of a smaller magnitude, the MARGINAL PROPENSITY TO CONSUME would be less than 1

$$0 < \Delta C/\Delta Y < 1$$

where Δ means 'small change in'. Second, the marginal propensity to consume would be less than the AVERAGE PROPENSITY TO CONSUME

$$\frac{\Delta C}{\Delta Y} < \frac{C}{Y}$$

Finally, the rate of change of the marginal propensity to consume would be negative; that is, the slope of the CONSUMPTION FUNCTION will become flatter as income rises. While short-run time series and cross-section evidence on the form of the consumption function broadly support Keynes' hypothesis, long-run evidence contradicts it. In consequence this form of consumption function enters only the most simple models. (*See also* SHORT-RUN CONSUMPTION FUNCTION, CROSS-SECTION CONSUMPTION FUNCTION, LONG-RUN CONSUMPTION FUNCTION, RELATIVE INCOME HYPOTHESIS, LIFE-CYCLE HYPOTHESIS, PERMANENT INCOME HYPOTHESIS, ENDOGENOUS INCOME HYPOTHESIS.)

absolute monopoly.
See MONOPOLY.

absolute prices. MONEY PRICES as opposed to RELATIVE PRICES; that is, the price of goods and services expressed directly in terms of a quantity of the monetary unit. (*See* PRICE.)

absolute scarcity.
See SCARCITY.

absolute value. (Also known as modulus.) The value of a variable ignoring its sign. Thus the absolute value of a positive number is just that number, while the absolute value of a negative number is itself multiplied by minus one.

absorption approach. A method of analysing the effects of a DEVALUATION or DEPRECIATION of a country's EXCHANGE RATE on its BALANCE OF TRADE. The approach focuses attention on the relationship between NATIONAL PRODUCT (Y) and national absorption (A), where the latter is defined as the use of goods for the purposes of CONSUMPTION and INVESTMENT by the private and public sectors of the economy. The balance of trade (B) can only be positive (i.e. in surplus) if Y exceeds A. Thus in its simplest form the relationship may be written as $B = Y - A$.

If the balance of trade is to improve then devaluation or depreciation must raise Y relative to A. In an economy with unemployed resources this is possible, since the decline in the exchange rate should be a greater stimulus to Y than A. At full employment, however, Y cannot be increased, so that B can only improve if A falls. The merit of the approach is that it draws attention to the need for complementary action (e.g. some degree of DEFLATION) if a decline in the exchange rate is to improve the balance of trade in conditions of full employment.

abstinence. A term which describes the necessity of forgoing present consumption in

order to allow capital accumulation. It was first used by Nassau SENIOR in his theory of the RATE OF INTEREST. For Senior, the creation of CAPITAL GOODS involved saving from current income in order to augment the CAPITAL STOCK, and create a greater future stream of consumption goods. As such it implies that a reward for such behaviour is required if capital accumulation is to continue. Interest is the reward for abstemious behaviour and the rate of interest reflects the scarcity of capital. J.S. MILL extended the notion of abstinence to include a reward for forgoing consumption of capital itself. Since capital goods take time to produce commodities for consumption the individual must wait for some period before benefiting from an investment. Abstention in this sense of 'waiting' is scarce and requires a reward or payment in the form of interest.

These two elements of abstinence provide a theory of the supply of savings which can be used in conjunction with a demand for investment to explain the existence of a positive rate of interest.

accelerated depreciation.
See DEPRECIATION.

accelerating inflation. An increasingly sharp rise in the rate of INFLATION. If government attempts to hold unemployment below the NATURAL RATE OF UNEMPLOYMENT this will result in accelerating inflation.

accelerator.
See ACCELERATOR PRINCIPLE.

accelerator coefficient. The multiple by which new INVESTMENT increases in response to a change in output. New investment is hypothesized to be some multiple greater than one of the change in output because the value of a machine is usually well in excess of the value of its annual production. (*See* ACCELERATOR PRINCIPLE.)

Accelerator Principle. The theory that the level of aggregate net INVESTMENT depends on the expected change in output. In its naive form, it can be expressed

$$I_t = a\Delta Y_{t-1} + b$$

where 'a' is the accelerator coefficient, 'Δ' means 'small change in', and ΔY_{t-1} means the change in the level of output in the previous year. ΔY_{t-1} thus becomes a proxy for the expected change in output, and b is REPLACEMENT INVESTMENT. The theory hypothesizes that firms attempt to maintain a fixed ratio of desired CAPITAL STOCK to expected output. In the naive version there is no role for the interest rate and it is therefore an extreme Keynesian view of the determinants of investment. In the more sophisticated form, known as the flexible accelerator, the ratio 'a' is affected by the USER COST OF CAPITAL while further flexibility is introduced in those versions which take account of the substantial construction lag some investment projects entail. As a result only a proportion of any gap between actual and desired capital stock will be made up in any one period. The principle plays an important role in explanations of the TRADE CYCLE (e.g. through MULTIPLIER-ACCELERATOR INTERACTIONS), and in the theory of economic growth – notably the HARROD–DOMAR MODEL. (*See also* CAPITAL STOCK ADJUSTMENT PRINCIPLE.)

acceptance. Strictly the act of 'accepting' a BILL, performed by the person or body on whom the bill is drawn, consists of signing it, usually across the face. However, the term is commonly used to mean a BILL OF EXCHANGE that has been 'accepted' by an ACCEPTING HOUSE or BANK on behalf of a customer who requires CREDIT to cover a purchase of goods, or to enable him, as a seller, to extend credit. Such acceptances can be readily traded in SECONDARY MARKETS in major financial centres.

accepting house. One of a group of London-based MERCHANT BANKS which, for a commission, 'accepts' BILLS, that is, engages to meet payment of them on maturity. The house accepts on behalf of customers whose transactions (e.g. importing) give rise to bills, and from whom it eventually recovers payment. Bills accepted by a recognized accepting house may be discounted at the finest rates in the London bill market, and have always been ELIGIBLE PAPER at the BANK OF ENGLAND. Because of their 'eligible' status the

accepting houses have traditionally been required by the Bank to meet certain capital and operating conditions. The Accepting Houses Committee to which recognized houses belong currently has 16 members. (*See* BANK BILLS, LENDER OF LAST RESORT.)

Accession, Treaty of.
See EUROPEAN ECONOMIC COMMUNITY.

accession rate. The number of new hires per month as a percentage of total employment, compiled monthly by the US Department of Labor. It is an important leading indicator of business conditions in the USA. An initial increase in demand is met with overtime. Once higher levels of demand are relatively certain, new workers are hired. The opposite sequence of events occurs when demand starts to dwindle. The number of workers per month who are separated from the labour market and the number of workers per month being hired (accessions) is normally around four to five per cent of total manufacturing employment in the USA.

accessions tax. A TAX levied on gifts and inherited property. Such receipts are not usually classified as income but as they confer spending power they are arguably a legitimate subject of taxation. An accessions tax is levied on the recipient and, as it is related to his economic circumstances, is superior, from an EQUITY viewpoint, to the UK CAPITAL TRANSFER TAX where liability is on the donor. Proponents of an accessions tax normally argue that it should be levied at PROGRESSIVE RATES on the lifetime cumulative amount of gifts received. This is to prevent the situation arising where one person receives a very large sum in small annual parcels and pays little or no tax because the receipts are spread over a long period.

access/space trade-off model. A theoretical model used (principally) in the analysis of residential location in urban areas, which explains location patterns as the outcome of a trade-off between accessibility of a site to the centre of the area and the spaciousness of the site. The model assumes that all employment is at the centre of the area, thus sites close to the centre can command a higher price than those further away since travel costs are reduced by locating near the centre. In EQUILIBRIUM, the price or rent of land will fall with increasing radial distance from the centre, the difference in rent exactly reflecting differences in travel costs. Further, since land becomes relatively cheaper as one moves away from the centre, the size of the site purchased by a household will increase with distance from the centre. Although extremely unrealistic, particularly in its assumption that employment is found only at the centre, the model forms the basis of more sophisticated analyses of location patterns and is consistent with at least some empirical evidence. (*See* BID-RENT FUNCTION, CENTRAL BUSINESS DISTRICT, DENSITY GRADIENT, URBAN ECONOMICS.)

accommodating monetary policy.
See VALIDATED INFLATION.

accommodating transactions. In the BALANCE OF PAYMENTS, a type of capital transaction implemented or engineered by the MONETARY AUTHORITIES to offset a net credit or debit situation arising in the AUTONOMOUS TRANSACTIONS. If the autonomous items are tending to surplus or deficit, accommodating capital flows will counterbalance the pressures on the EXCHANGE RATE. Examples are private short-term CAPITAL MOVEMENTS stimulated by interest rate policy, official short-term lending and borrowing, and changes in the EXTERNAL RESERVE. Accommodating transactions are essentially monetary in nature; there is no accompanying movement of goods, services or FIXED ASSETS, only money (including gold) or short-term liquid claims.

account.
1. A running record of transactions between two transactors, who may be two departments of one business, and a basic element in all systems of recording business transactions. In retail trading the term is widely used to denote the CREDIT facility automatically extended to a customer with whom an account is operated. In banking, customers' accounts have a particular significance in that some or all of the outstanding credit balances in them are

regarded as forming part of the MONEY SUPPLY. (*See* ASSET, BANK, CHEQUE, CURRENT ACCOUNT, LIABILITIES.)
2. The periods, normally of two weeks' duration, into which the business year of the London STOCK EXCHANGE is divided, and over which the settlement of all transactions except those in GILT-EDGED SECURITIES is deferred. Unless there is an arrangement to carry it over to the next account, a settlement must be concluded on the fifth day, called Account Day, after the close of the account.

Accounting Standards Committee. An independent body set up initially in 1969 by the Institute of Chartered Accountants in England and Wales in response to demands for the accounting profession to develop and improve a set of consistent standards in financial reporting. It is now comprised of members from the six governing bodies of the CCAB (Consultative Committee of Accounting Bodies). Its main purpose is to propose statements of standard accounting practice.

ACT. *See* ADVANCE CORPORATION TAX.

accrued expenses. An entry in a company's account which records as a LIABILITY the cost of services used but not yet paid for.

Achieving Society, The. The title of a book by Professor David C. McClelland of Harvard University (Princeton, NJ, 1962) in which he defines the concept of the achievement motive, to measure imaginative thought and levels of new ideas, which he considered to be necessary personality traits for ENTREPRENEURS and hence crucial for rapid ECONOMIC DEVELOPMENT. He classifies these under such headings as 'desiring to do well' and 'competing with a standard of excellence' and arrives at a scoring definition which he names 'n-achievement'. This is, therefore, a psychological measure of a personality trait. The score for an individual is the sum of achievement 'ideas' introduced when he is asked to write an imaginative story to a picture. He provides evidence that 'n-achievement' is highly correlated with entrepreneurship.

across-the-board tariff changes. A situation when all TARIFFS in a country are increased or decreased by an equal percentage. (*See* CONCERTINA METHOD.)

action lag. The lag between a policy decision (particularly in macroeconomics) and its implementation. The action lag is usually preceded by a DECISION LAG. Also a component of INSIDE LAG.

active balance. In monetary theory some models postulate a division of the money supply into active balances, which are money stocks that turn over actively within periods determined by the intervals between payments, and IDLE BALANCES, which are money stocks not employed in the circuit of regular payments. In the QUANTITY THEORY OF MONEY, changes in the VELOCITY OF CIRCULATION, in conditions other than HYPERINFLATION, are conceived to occur mainly through transfers between active and idle balances, and only to a lesser extent through changes in the rate at which money moves round the payments circuit. Empirically, the distinction between active and idle balances is elusive since the 'activity' of money is a matter of degree. But for practical purposes active balances are frequently defined as CURRENCY in circulation plus CURRENT ACCOUNT deposits in BANKS.

activity analysis.
See LINEAR PROGRAMMING.

activity rate.
See LABOUR FORCE PARTICIPATION RATE.

adaptive expectations. The formation of EXPECTATIONS about the future value of a variable based only on previous values of the variable concerned. Economic agents adapt their future expectations about a variable in the light of their recent experience of the value of the variable. Though less logically satisfactory than the assumption of RATIONAL EXPECTATIONS, it is used in economic models for its ease of handling. (*See* VERTICAL PHILLIPS CURVE.)

adding up problem.
See EULER'S THEOREM.

Additional Worker Hypothesis. On this argument, the fall in family real incomes during a cyclical down-turn will exert an INCOME EFFECT: additional workers from the family will enter the labour force in the hope of finding a job so as to maintain family income. Thus LABOUR FORCE PARTICIPATION RATES will move counter-cyclically. In fact, the evidence reveals that on balance labour force participation rates move pro-cyclically (*see* DISCOURAGED WORKER HYPOTHESIS). However, the added worker effect is discernible among certain low income groups for whom need is more important than price.

Addition Rule. A rule for the determination of the DERIVATIVE of a function with respect to a variable, where the function consists of the linear sum of two or more separate functions of the variable. Thus, in the function

$$Y = u + v$$

where u and v are separate functions of say X, then

$$\frac{dY}{dX} = \frac{du}{dX} + \frac{dv}{dX}$$

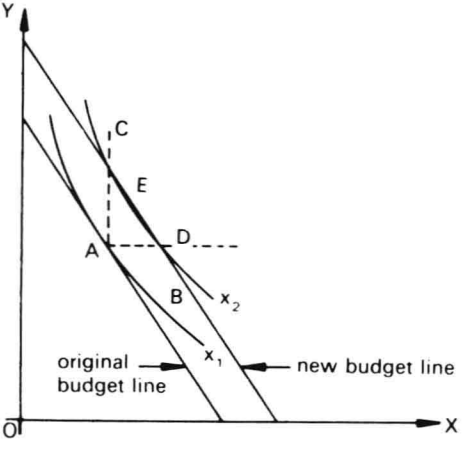
additive utility function. A UTILITY FUNCTION of the form

$$U = U_a + U_b + U_c$$

where U is utility and a, b and c are goods, or in LINEAR EXPENDITURE SYSTEMS, groups of goods between which substitution is not possible.

Since the utility of good a is independent of the utility of good b, then the MARGINAL UTILITY of good a is dependent upon the amount of good a alone and on no other good. If then each good is subject to DIMINISHING MARGINAL UTILITY it will be the case that the INDIFFERENCE CURVE will be convex – i.e. bent 'inwards' – to the origin. That is, provided the utility function is additive and diminishing marginal utility exists for each good then the indifference curve will be convex. Proof is given in the diagram. An indifference curve relating to two goods X and Y is shown. Consider point A on the indifference curve, and then consider the move to point B. At B there is more of X and less of Y. So long as the marginal utility of X depends on the amount of X alone, we know that the marginal utility of X must be less at B than it was at A simply because the consumer has more of X. Since he has less of Y his marginal utility of Y will be more than at A, hence the ratio of the two marginal utilities, which defines the slope of the indifference curve (its MARGINAL RATE OF SUBSTITUTION), must fall so that the indifference curve at B has a shallower slope than at A. It follows that additive utility functions imply convexity of the indifference curve.

A further feature of such utility functions can be illustrated on the same diagram. Consider the move from A to C, where C is directly 'north' of A on a near but parallel BUDGET LINE. If the marginal utility of X is dependent upon the amount of X alone, and similarly for Y, then we know that the ratio of the marginal utilities at C must change in such a way as to make the indifference curve steeper at C than at A. This is simply because we have more of Y (its marginal utility has fallen) and the same amount of X (its marginal utility is the same). Parallel analysis will show that the indifference curve through D is less steep than it is at A, where D also lies on the new parallel budget line and where D is directly 'east' of A. It follows that the indifference curve which is tangential to the new budget line will be at a point between C and D, say E. But this implies that a change in income will, provided utilities are independent, always



additive utility function

cause more of both commodities to be bought. In short each good must be a NORMAL GOOD. One of the properties of additive utility functions, therefore, is that they always imply that the goods entering into the utility function are normal.

address principle. In a PLANNED ECONOMY such as the USSR each target has an organization or 'address' which is responsible for carrying it out.

ADF.
See AFRICAN DEVELOPMENT FUND.

adjustable peg system. This was instigated by the INTERNATIONAL MONETARY FUND (IMF) at the BRETTON WOODS conference and refers to a set of fixed, or 'pegged' EXCHANGE RATES which are basically static, but allowed to adjust or change by small amounts in either direction. Adjustable peg systems have three main problems: finding the necessary reserves to meet short-term fluctuations in foreign receipts and payments to keep the rate fixed, adjustments to long run trends and crises due to speculation on changes in the peg.

adjusted $\bar{R}^2$ (Also known as R^2, R bar squared). The COEFFICIENT OF DETERMINATION adjusted for DEGREES OF FREEDOM, bearing the relationship to the unadjusted coefficient

$$\bar{R}^2 = 1 - \left(\frac{n-1}{n-k}\right)(1 - R^2)$$

where n is the number of observations, and k is the number of explanatory variables. While it is not possible for the unadjusted R^2 to decline as more explanatory variables are added, if the latter do not significantly add to the explanatory power of the equation, then $\bar{R}^2$ will decrease. This figure thus provides a valid way of comparing the explanatory power of equations containing different numbers of explanatory variables. (*See* GOODNESS OF FIT.)

adjustment lag. The time taken for a variable such as CAPITAL STOCK to adjust to changes in its determinants. (*See* PARTIAL ADJUSTMENT, CAPITAL STOCK-ADJUSTMENT.)

adjustment process. The generic term for the adjustment mechanisms which operate in the international economy to remove imbalances in foreign payments. The most important mechanisms which have been advanced to explain the process are those involved in the GOLD STANDARD, the GOLD EXCHANGE STANDARD, the FOREIGN TRADE MULTIPLIER and the FLOATING EXCHANGE RATE.

administered prices. Prices which are established by the conscious decision of some individual or agency rather than by the impersonal play of market forces. Administered pricing is generally possible where a good is sold by a MONOPOLY firm or public body.

administrative lag. One of the lags in time affecting the impact of a MONETARY POLICY. It is the time between the recognition by the authorities that action is necessary and the actual taking of the action. Its length depends on the efficiency of the authorities and whether they believe in prompt action or infrequent but more major changes. (*See* INSIDE LAG.)

ad valorem tax. A tax based on the value of a transaction. It is normally a given percentage of price at the retail, wholesale or manufacturing stage and is a common form of SALES TAX. Examples are the retail sales tax which is common in the USA, the VALUE-ADDED TAX widely employed in Europe and the PURCHASE TAX formerly employed in the UK. Other common examples are ROYALTIES and SEVERANCE TAXES levied on the production of minerals. Frequently, the INCIDENCE of this type of sales tax will be at least partly on the consumers of the products concerned and as everyone pays the same amount of tax on a unit purchase irrespective of his income this type of taxation is said to be REGRESSIVE.

advance. A loan, whether against an identified or an expected inflow of cash. (*See* BANK LOAN.)

Advance Corporation Tax (ACT). When a company in the UK makes a distribution of dividends it has to pay advance corporation tax at the rate of $^{29}/_{71}$ of the distribution (in

1986–7). As the name suggests it is an advance payment of corporation tax and is credited against its liability for that tax. It is a device to collect some corporation tax earlier than would otherwise be the case. It is noteworthy that when taxable profit is not big enough to 'cover' all dividend payments, ACT cannot be fully recouped against corporation tax. The existence of ACT in this situation means that imputation credit cannot be claimed by shareholders without corporation tax being paid by the company. The maximum ACT which can be set off against corporation tax liability is the amount which after being added to the dividend equals the taxable profit. The rules allow a surplus of ACT to be carried backward for two years against taxable income and forward without limit. In recent years many firms in the UK have experienced unrelieved ACT because of low profits and high capital allowances.

advance refunding. A new DEBT MANAGEMENT technique used by US federal, state, and local governments. The US Treasury may want to extend the average maturity of its marketable SECURITIES. This can be done by offering owners of shorter issues the opportunity to buy new longer issues. To coax security owners to make the exchange, slightly higher yields are offered. While the higher yields increase the cost of servicing the debt, the longer maturity of the debt reduces the number of times the Treasury must borrow. State and local governments use this technique when their bond ratings have improved and they are able to take advantage of lower interest rates. State and local governments call in their old higher-yield, lower-rated securities in exchange for new lower-yield, higher-rated securities.

advanced countries. The dividing line between advanced countries and DEVELOPING COUNTRIES is usually based on per capita income. Those with per capita incomes of less than one-fifth of the level of those in the USA are considered 'underdeveloped'. It is not an absolutely clear definition as there are some countries, for example, Middle East oil producing countries which on this criterion would be advanced countries, but which, when the INCOME DISTRIBUTION and availability of various services are taken into consideration, are obviously not very 'advanced'. (*See* UNDERDEVELOPMENT.)

adverse balance. A BALANCE OF PAYMENTS DEFICIT.

advertising. Action by a firm to promote the sales of its products, the basic aim being to increase the number of consumers who prefer these products to those of its competitors. This can be achieved in two different ways. Firstly, advertising can be used to inform consumers of the existence and location of the product(s) to which it is directed. Secondly, advertising can influence the nature of consumers' preferences to the benefit of the firm's products. It has been argued that advertising is a source of MARKET IMPERFECTION, in particular, by contributing to BARRIERS TO ENTRY and PRODUCT DIFFERENTIATION, established firms are given an element of discretion over price. In this way, advertising can sustain existing levels of concentration within an industry. Further, N. KALDOR has argued that because advertising is not a marketable product, consumers are not given the opportunity to determine the volume of advertising they wish to consume. On the other hand, advertising is a source of information on prices and product attributes available to potential buyers. In this way, advertising enhances information flows between traders and thereby strengthens competitive market forces. By enhancing sales, advertising may also enable firms to secure a minimum efficient scale and thereby acquire economies of scale. Recent theoretical and empirical work has suggested that advertising be treated as a CAPITAL EXPENDITURE. This suggestion recognizes that advertising expenditures contribute to a stock of good-will which decays gradually over time.

advertising-sales ratio. The ratio of firms' advertising expenditure to total sales revenue. Rivalry in more highly concentrated market structures tends to take the form of non-price competition, hence we can expect, CETERIS PARIBUS, the intensity of advertising (as measured by the

advertising-sales ratio) to increase as we move from a perfectly competitive market structure to oligopolistic market structures. (*See* ADVERTISING.)

AfDB.
See AFRICAN DEVELOPMENT BANK.

AFL-CIO.
See AMERICAN FEDERATION OF LABOR.

African Development Bank (AfdB). A regional development bank established in 1964 to accelerate the economic development and integration of independent African countries through the evaluation, co-ordination and financing of development projects. (*See also* AFRICAN DEVELOPMENT FUND.)

African Development Fund. An intergovernmental institution created in 1972 to assist the AFRICAN DEVELOPMENT BANK in promoting the economic development and integration of its members. The fund, originally established to allow capital exporting countries control over their contributed funds, enables the bank to include non-African funds in its investment portfolio.

Africanization. A term used with reference to employment in Africa to describe the changeover from non-Africans (usually Asians or Europeans) to Africans in any type of employment.

age-earnings profile. The relationship between earnings and age. The simplest age-earnings profile would be a horizontal line stepping up from zero at the age of leaving school with the size of step being determined by the quantity of schooling. In fact the typical post-school age-earnings profile is more complex than this; the pattern for annual earnings is for a steep increase on leaving school followed by a slower increase until a plateau is reached in the mid-forties, after which a slow and then a faster descent occurs. The modern explanation of the parabolic path of earnings is that after leaving school the individual does not cease to invest in his HUMAN CAPITAL. He is still willing to forgo a certain fraction of his potential earning power, thereby reducing current earnings, so as to accumulate capital and raise his earnings at later stages of his life. Because the period over which the investment can be amortized becomes shorter as the individual approaches retirement, he will devote a smaller and smaller proportion of his potential earnings to investment and his stock of human capital will grow at an ever decreasing rate. Eventually investment will no longer exceed DEPRECIATION and the stock of human capital will actually shrink and subsequently observed pay will decline.

Agency for International Development.
See INTERNATIONAL DEVELOPMENT CO-OPERATION AGENCY.

agency shop. The requirement that workers entering employment do not have to join the trade union but do have to pay union dues. The arrangement is a compromise, frequently found in the USA between those who argue that the worker should be free to join a union or not, and those who argue he should not enjoy the benefits that union representation ensures without paying for them. (*See* CLOSED SHOP.)

agglomeration economies. Cost savings in an economic activity which result from enterprises or activities locating near one another. Examples of such savings include the clustering of retail establishments which permits consumers to make price comparisons without multiple journeys, the efficient use of information where contact between buyers and sellers is facilitated, the spreading of costs of public services and the development of specialized input suppliers serving a number of consumers in the surrounding area. In the last case, cost reductions arise through ECONOMIES OF SCALE and SPECIALIZATION in the supplying firms, thus they are said to be internal to these firms. Agglomeration economies are an example of EXTERNAL ECONOMIES where one firm's activities confer benefits on other firms. (*See also* URBANIZATION ECONOMIES, CONGESTION COSTS.)

aggregate concentration. The degree to which production within a sector of the economy, or the economy as a whole, is concentrated in the largest few corporations.