

Accounting and Economic Decision

By MR. E. A. GRACE.

(Read before the Society, March 27th, 1953.)

Accounts, whether prepared for shareholders or management, provide a systematic basis for determining the employment of a very large part of national resources of manpower, material and technique. I conceive that an attempt to examine the underlying methods and their application may be of interest to students of social sciences for whom this Society is a meeting place. I might have hesitated to address you on so traditionally simple a subject as double-entry book-keeping, but recent statements of accountants and economists have emphasised that the significance of the methods employed is not sufficiently appreciated and that there is by no means unanimity on the efficacy of some of the most fundamental traditional assumptions.

Reassured by these opinions, which have at least been unanimous on the practical significance of the controversy, I experience doubt, not for my subject, but grave doubt of my ability to deal with it adequately.

The spirit of questioning which has developed within the profession has led to a review of almost every aspect of its activities. I quote *The Accountant* (October 11th, 1952):—

“Speaking to potential business leaders at the University of Texas, Mr. Fladger F. Tannery, assistant comptroller, Humble Oil Refining Co., asks himself and other accountants pertinent questions. Have we a broad enough general educational background, an understanding of the real meaning and possible usage of accounting techniques, an appreciation of the management problem and the management point of view? ‘What are we accounting for?’ he asks, and his answer is ‘to assist management in co-ordinating the performance of the company with its objectives’. He urges the necessity for analysing current economic thought and studying economic developments; he indicts ‘misdirected emphasis on balance sheet and penny accuracy’. ‘The balance sheet and income statement are not useful to management in its day-to-day decisions,’ says Mr. Tannery, ‘they are too slow in reaching management, they contain a mixture of economic values, they cover too much in too brief a form.’ He calls for more realism, reduction of the emphasis on ‘cold historical facts’ and the presentation of useful estimates based on current values and the current purchasing power of the dollar.”

This statement is typical of many which characterise the accountancy profession to-day and it may be profitable to attempt to trace the reasons for such a development and to anticipate the practical effects that may follow.

The accountancy profession is one which is of relatively recent origin. For 50 years, until about 1930, members were almost solely pre-occupied with the day-to-day problems of their growing practices. In the past 25 years emerged the second major branch of the profession, that of the industrial and administrative accountant. With him came a new complexity in technique and greater use of accounting information to guide day-to-day decisions. The inflationary period which followed the war has added to the problems of both the industrial accountant and the independent practitioner. The effectiveness in times of changing prices of accounts based on past expenditure has been questioned.

As in a small and simple business, a formal statement of policy may seem trite and unnecessary, but when the business grows in scope and complexity, a clear statement of objectives and methods is the first test of competent management. So it is with a profession. In the earlier stages when technique is relatively simple, it is taken for granted. Later, a stage is reached when lack of perspective results from the absence of a logical framework. Misconceptions arise and achieve wide currency. Explanations of proposed techniques need to be related to existing methods. Theory, like policy, is then seen to be of urgent practical importance.

Before this is realised, generally, individuals tend to attribute to existing methods guiding principles, some of which are quite without justification. F. R. de Paula has said: "The double account system . . . was a very simple one to adopt . . . but, in my view, there was no thought of scheme and basic accounting principle at the root of it."

Where principles were taken for granted for so long, students saw principles which had no rational justification. "Accepted" principles came to have "the characteristics of finality and absolute inviolability". ("Accounting for Inflation" Taxation and Research Committee of Association of Certified and Corporate Accountants.)

I believe we do need a plan to guide us in dealing with the more complex techniques, but I do not believe that such a plan should be drawn by reading into the earlier applications of our method subtleties that did not exist. We must clear away misconceptions which have a wide vogue; discover what may reasonably be said to be our purpose as a profession; and deliberately prepare a logical framework consistent with that purpose and within which we can work. We should realise that we have ourselves chosen and set down those principles and that they may subsequently prove inadequate and have to be changed; they do not derive unerringly from first causes.

The need for a statement of principles has been recognised in the profession. The Institute of Chartered Accountants in England and Wales has, from time to time, published recommendations on principles, but these are concerned with relatively specialised features, and they do not form part of a co-ordinated scheme. More recently, the Institute of Cost and Works Accountants in their report, "Accounting for Changing Price

Levels ”, have recognised the need and have gone further towards examination of the elements of method. There are also numerous publications of individuals. Generally speaking, most of these approaches have been hesitant of offending the intelligence of their readers by attempting a sufficiently radical statement, deterred, no doubt, by the almost proverbial simplicity of the subject.

Simple techniques have an inherent deceptive quality which causes them to be dismissed as unworthy of attention while complex methods which challenge more obviously our analytical powers are thoroughly scrutinised. This has been the case with accountancy. A simple traditional method was adopted and the results produced by that method came to be regarded as “factual”. This attitude has militated against refinements which greatly improved the usefulness of accounting information, but which diverged from the accepted system. It has lent to the basis of assessing income-tax a reasonableness which is not consistent with the economic view, and businessmen have been misled by fictitious profits in a period of inflation, seriously dissipating their capital.

The substitution of a rule of thumb for a logical explanation capable of further development has made unduly difficult the study of accounting technique and occupied students painfully and unprofitably when they would be better employed studying business economics. It has been responsible for an attitude of mind of a very large number of accountants, which is detrimental to an understanding of economic “realities”. The absence of a logical explanation has also contributed to misunderstanding of accounting method by those outside the profession. This has set up a barrier between accountants and economists and left until recently inadequately explored the technique of rational managerial decision.

The initial training and method of education in every profession inevitably leaves its imprint upon the outlook of its members. The early principles and prejudices unconsciously absorbed are not readily shed, not even readily recognised for discussion. They tend to become a part of a man’s critical equipment. Up to the present time, accounting has been taught almost exclusively by example and the intelligent student who has learned to reason, finds the method even more tedious than most methods as such.

Mr. William A. Patton, in his “Essentials of Accounting”, has been compelled to say:—

“The subject of double-entry book-keeping has been rendered needlessly mysterious and difficult by the use of arbitrary and unreasonable rules of debit and credit. Particularly unfortunate has been the persistent attempt to attach a single interpretation or meaning to each of these signs which would hold in every instance. In the nature of the case, it is ‘impossible to do this’.”

From the point of view of the accountancy student, the practice of teaching exclusively by example interspersed with facets of legal and commercial practice is not conducive to an understanding of

business, which it is his function to facilitate. The fact that the accountant is merely employing a method for the purpose of facilitating business decision on manpower, material and other resources is disguised.

Those who frequently have to attempt a practical comparison of relative money values tend to think of all economic transactions as beginning and ending with money which comes to assume an ultimate reality.

There can be no doubt that such a premise does underlie many ideas advanced by accountants, though they are by no means alone in this. For instance, Professor Dicksee says: "It is important not to lose sight of the fact that the whole object of the business is to convert these items (stocks, debts, etc.) into cash."

Again, in a joint report prepared by economists and representatives of the Institute of Chartered Accountants in England and Wales, it is stated: "It is important to bear in mind the vital difference between accountants and economists in their approach to financial material. Accountants present their statements in terms of monetary unit; economists are concerned mainly with the goods and services represented by the monetary symbols."

The distinction is significant.

The accounting convention that the difference between the purchase price and the selling price of an article is a real profit regardless of the purchasing power of money is very widespread within and outside the profession. It has come to be regarded as the natural order of things. A recent publication, reminiscent of Rousseau's social contract, attempted to show the social, if not moral, justification for this point of view. The so-called "risk" theory illustrates the confusion which exists between social, economic and technical accounting problems.

As I have repeatedly heard moral grounds advanced in the discussion of suggested reforms of accounting technique, it is necessary to point out that whatever form this argument takes, it cannot affect the issue whether a proposed accounting treatment is more realistic or not, and it certainly cannot affect the issue whether it is technically practicable.

A further argument which has been advanced reflects the implicit assumption that an accountant is, by the nature of things, bound by certain unalterable rules of procedure and that his scope is limited to the methodical record of transactions within that framework. This argument is stated as follows: "The basis of the accounts of a business undertaking is the allocation of costs and revenues. Balance sheets and profit and loss accounts do not record values. Whilst figures of assets are ascertained and put in the balance sheet each year, it should be appreciated that these figures are costs incurred, not values." It is a method of allocating expenditure against revenues. It follows that such a system must produce a computation of profit which consists of the "surplus of revenue earned from the supply of goods or services over the cost of supplying them and the cost of promoting their sale", without regard to the dates at which such revenue or costs actually occur, or of fluctuations in money value between those dates.

This conclusion is, of course, irrefutable as a statement of what actually happens, but it is no answer to the question whether the basis assumed by accountants, the premises of this argument, is a satisfactory one. The argument thus illustrates my earlier point that the principles unconsciously absorbed in training tend to become implied in arriving at decisions for which they could not provide a basis if clearly stated and not merely taken for granted. In both the arguments cited, a convention which forms the working assumption for a special method, has been used as premises on which to build an argument affecting the morality of basing selling prices on increased replacement costs and for another argument concerning the efficacy of the convention itself.

The incontrovertible nature of the second argument that since an accountant adopts original costs as the basis of method, the balance sheet is a statement of costs and that the profit is the difference between costs and revenues, provides a severe temptation to give an unwarranted claim for accuracy to the work of the accountant.

The result of this has had a retarding effect on progress.

A fetish for accuracy has developed where revenue or expenditure is divided on the basis of assumptions which are often very questionable or arbitrary. The mathematical accuracy disguises the conceptual weakness. This has had serious practical consequences. For instance, the cost of a by-product is built up from direct costs and percentages to cover indirect costs. The sales section advises that the item must be sold at a figure lower than this cost. Perhaps this is done, but the item in question is regarded as "losing money". If it is a by-product, it has a reasonably good chance of continuing in production, because it is seen to be inevitably tied to the main product. In the case of joint costs, railways, for instance, those services which are not producing enough revenue to cover both direct costs and arbitrarily allocated indirect costs, are often regarded as "losing money". If they are separately terminable, they are in danger of being discontinued with net loss to the undertaking as a whole, and even if services are not actually discontinued, the rates for some commodities may be pushed up above the level at which they can be held against road transport.

Some specific examples may better illustrate the weakness concealed by mere mathematical in contrast to conceptual accuracy. A couple of years ago, when I was visiting the United States, I noticed a marked tendency to attempt to allocate costs far beyond the point at which, to my mind, they could be realistically allocated. I noticed that the official returns required by the Inter-State Commerce Commission distribute all costs between freight and passenger and that a very large portion of these costs were treated as direct. I was not satisfied that this proposition was realistically arrived at.

An instance of this type of demand for a deceptive accuracy in the allocation of historical costs is provided by one feature of the accounts which American railways are compelled to keep. Rates adjustments must be based upon evidence which includes

particulars of the cost of the various assets employed. A separate record of the historical cost of each wagon is kept. I examined the cards for one batch of wagons. They had apparently been improved in some small way, and the average cost of improvement per wagon was \$1.75. An entry for this amount, which would scarcely pay a tradesman's wages for one hour, was made in each card for all the wagons affected.

I should add that examples of this type are not common in American industrial accounting. The tendency indeed is to concentrate on speed of production and to discount the importance of the apparent accuracy of accounts to a greater extent than is the practice in Europe.

The example illustrates, however, a tendency to which the Mission of which I was a member drew attention in its report, "Cost Accounting and Productivity" (O.E.E.C. Technical Assistance Project, No. 50).

If this unwarrantable demand for accuracy were merely a source of waste of time of accountants, it would be serious enough, but it has even more serious affects than the delay of production of managerial information. The greatest danger is that the deceptive accuracy of such accounting leads to decisions which are economically unsound.

The view to which I have already referred that profit must be calculated on the basis of the difference between cost price and selling price has, at least, two distinct but inter-related affects. In the first place, it is invoked as sufficient justification for the preparation of accounts on the basis of historical costs, even in times of changing prices. In the second place, it has come to have the significance of an economic theory, or, as I already pointed out, has acquired even a moral significance. It is important to distinguish clearly between these two aspects. It is conceivable that for reasons of expediency in technique, the traditional method of accounting might be continued, but to imply that such a decision involved an economic theory would be quite unwarrantable. The following quotation from a statement by the Revenue officials at a joint session with accountants under the auspices of the Canadian Tax Foundation seems to illustrate this line of reasoning: "The Revenue cannot be expected to move so far ahead of accepting accounting practice as to produce a system of allowances based on replacement values, when accountants cling to allowances on historical costs."

Consideration of the method of calculating the profit on any transaction is primarily economic, and the fact that it must be considered by the accountant indicates most clearly the fundamental basis of accounting. We must have our views on economics clear before we can confidently attempt to formulate a system to express the economic facts effectively.

Before examining the attempts which accountants have made to arrive at a satisfactory solution to the problem of profit, some examples of the practical results of the theory that money is the ultimate measure of profit may be helpful. The effect on income tax of such a basis is particularly significant.

If a man invests £1,000 in 100 bags of merchandise and later sells them at £2,000, he makes a profit of £1,000 according to the historical cost theory. If prices have remained stable, this is reasonable enough. If, however, he purchases a similar 100 bags with a view to repeating the transaction, and finds that the price has by then risen to £1,750, he has in hand only £250 in addition to his original stock.

Income tax, however, is assessed on a historical cost basis, and if the appropriate rate is 40%, the merchant will be liable for £400 or more than the real increase in value of his assets as a result of trading. If he is assumed to have borrowed the extra £150, his ultimate position is that he has the same stocks and owes £150 in respect of a tax on income, without having spent a penny on himself. If the stock in question was capable of realising more in terms of other goods, even this could not be unreasonable, but if the values of other goods have likewise risen in price, the effect is that the whole benefit of his trading has been taken by the tax-collector and his earning potential—his stock—has even been reduced.

Though this effect can occur in less severe inflation, extreme cases provide the sharpest illustrations. In Germany, in 1918-23, paper marks as equivalent of gold marks (which may be taken for this illustration to indicate the stabilised value of goods generally) rose as follows:—

1918	2·083
1919	10·805
1920	17·395
1921	45·720
1922	1,750·866
1923	1,000,494,971,000·000

The case of the merchant, which I quoted above, showed what happened by the application of the principle of historical cost to a period when inflation increased prices by only 75%. If the principle is correct and not merely a device or a technique, valid only between certain limits, then it can be applied to a purchase in 1921 sold a year later when prices had risen forty fold. If the principle is unreasonable when extended to these extreme cases, it must be unreasonable at some other point and some effort must be made to decide when it becomes ineffective.

If the trader had bought his 100 bags of merchandise for 45,000 marks in 1920, he might have sold them in 1921 for 2,000,000 marks, resulting in a profit of 1,955,000 marks. At a rate of tax of 40% he would have to pay in income tax 782,000 marks, leaving him with only 1,173,000 which would enable him to replace only about two-thirds of his stock.

The imagination boggles at the result of applying the principle to the following year when prices rose to 500,000,000 times their 1922 level.

If we accept that there is a moral or a social responsibility to base profits on historical costs—to reckon profits in terms of money—then a motor car built in 1922 should be sold in 1923 for less than the price of a box of matches.

If we accept it as an economic theory, we should accept that this box of matches was as useful and desirable as the motor car.

If we reject it as a moral or an economic theory, but lay it down as the basis of an accounting technique to which we are inevitably tied, we must prepare our accounts on a basis which, in such times, shows astronomical figures of profit, which bear no relation to reality. Moreover, we must ask ourselves what we are accounting for, what we are endeavouring to do. If the answer is to provide information to guide investors and management to correct decisions, we must be satisfied that our methods do not deceive them. Let us, therefore, consider the evidence whether such techniques did deceive.

I quote "Accounting for Inflation" on the German inflation:

"It became apparent to some businessmen that their accounting statements were grossly misleading. . . . It was not, however, obvious to all, for it ultimately became necessary to prevent the distribution of capital in the form of dividends by law in 1923."

Accounts, it seems, did not fulfil their purpose of guiding businessmen to reasonable decision and at an advanced stage in the inflation, a financial court had occasion to express fears lest enterprises would "consume their capital in a manner harmful to the whole economy".

Though the prices had increased eight times over by 1921, only then did the income tax authorities realise the folly of taxing profits in the normal way.

Perhaps, an even more striking example of what can happen where accounts are prepared on the historical cost basis is afforded by the following quotation from "Accounting for Changing Price Levels" (Institute of Cost and Works Accountants):

"To illustrate the effect of the failure to maintain real capital, an analysis of the results for nine years from 1938 of American steel companies shows that while 38.5% of money income was retained—superficially not an unsatisfactory position—150% of real income was distributed. Part of it came from capital accumulated or invested prior to 1941—'in other words, out of plant, equipment and ore reserves', in the form of 'an involuntary contribution to the war effort and post-war reconstruction'."

A drastic reduction in the productivity of an industry thus occurred during relatively moderate inflation in the United States where wholesale prices during the period in question rose by 100% approximately.

It seems that the theory that profit is the difference between the money invested in the past and the proceeds of realisation, will not stand the test as an economic proposition, while as a technique of

accounting, it certainly has a misleading influence contrary to what I conceive to be the purpose of that method. That purpose is to produce information calculated to guide decisions on the employment of resources, labour, material and services so that the greatest utility is secured. This definition may appear to be obvious, yet it is necessary to emphasise it. It provides a common starting point at which the economist, the manager and the accountant meet.

In the light of this statement of purpose, it is of interest to trace the steps which the various professional bodies have taken to meet the demand for guiding principles.

The Institute of Chartered Accountants in England and Wales some years ago realised the need for an authoritative statement on what might be considered good practice. These principles dealt with specific issues and were mainly concerned with the published accounts, not with the more detailed accounts for management.

The principles in question did not constitute that logical framework necessary to organise the complex mass of techniques which had developed more in the field of the industrial accountant than in that of the practitioner. In the first instance, they were rightly welcomed as filling an acutely felt want. I believe, however, that they were mistakenly regarded by many as being of a much more radical nature than was ever intended.

Events have proved that they were not radical enough. As a profession or a science evolves more complex techniques, it is not merely less critical of simple fundamental concepts, but it finds them increasingly necessary.

In the United States, a change of attitude was already noticeable shortly before the war, as a result of which their text-books tend to offer general logical explanations rather than exhaustive illustrations of practical applications. The relationship to economic science became clearer, and the distinction between economic theory and the limitations of accounting treatment have begun to emerge more clearly.

Since the war, there has been a striking change in attitude all over the world. In controversy, in articles, lectures and reports, the fundamental concepts of methods have been searchingly examined.

In their efforts to provide solutions to some of their problems, accountants have co-operated with economists. In addition to the joint report prepared on Accounting for Inflation by the Association of Certified and Corporate Accountants, a joint exploratory committee was set up in 1945 by the Institute of Chartered Accountants and the National Institute of Economic and Social Research. This committee's terms of reference were much wider than the specific problem of Accounting for Inflation. They were asked to explore the possibility of a closer understanding between accountants and economists regarding the principles applied in their respective fields of work.

The first report emanating from this committee is disappointing, seeming to underline the differences between two groups of technicians with distinct specialised purposes.

The introduction seems to provide the explanation and to emphasise the need for a deeper examination of concepts and the use of the traditional deductive method of the economist rather than point by point examination of terms.

“The objectives of the two groups,” the report states, “are not the same. Accountancy relates to the financial aspect of the transactions and operations of business enterprises and the financial affairs of individuals. . . . The individual accountant is responsible directly to his clients or employer. Economists, on the other hand, normally have no particular client. Their work concerns the nation as a whole, and its constituent individuals and institutions. The ‘accounts’ which they prepare . . . are aggregated statements referring to an entire industry or to the whole national economy.”

In this first paragraph, there is ample promise of disagreement.

It is interesting to note the emphasis which has been laid upon the size of the entity on which the economist concentrates—normally not less than an entire industry or even the whole nation. Some economists may disagree with this, but presumably, it expresses the views of the representatives of the National Institute of Economic and Social Research; to my mind it does represent the tendency of the majority of economists. We might reasonably ask if this is inherent in economics. I am not aware of any definition of the science which restricts it to dealing with the larger entities. If I am right that economics may well be studied in its application to smaller entities and that the greater attention to entire industries and to the nation is the result of circumstances, then there must be a great field for exploration for the economist in the smaller units. It is impossible for the economist and the accountant to see eye to eye if one has his attention focussed on the nation and the other on one of its constituent enterprises. It seems to me that they should endeavour to concentrate upon the same model—the typical manager considering how to employ his resources in order to secure the greatest utility.

The interest which is taken to-day in the study of management and the fact that so little worth-while has been written about the subject, reflects, I think, the inadequacy of economic theory from the viewpoint of the individual manager. Management is concerned with a whole range of different subjects and techniques, yet if an organised body of knowledge is ever to be achieved, it must be capable of being reduced to a single idea which forms the hypothesis. This fundamental idea is economic, and I think management might reasonably be defined as the method of employing resources of labour, material and technique in a manner calculated to yield the greatest utility.

To my mind, the vital rôle of economics in management and accounting has not been fully appreciated, because the models which economic theorists have produced have generally been evolved with an eye on the statesman and not on the businessman. I do not suggest that universities should concentrate on applied business methods, though this has been done extensively in America, but I suggest that theoretical economists should devote more of their time to evolving models for the businessman.

In this connection, Professor O'Brien in his address to this Society—"Economic Relativity"—quotes Professor Morgenstern:

"It is, however, strange that the general public and among them those who are most contemptuous of theory, namely, the majority of businessmen, demand that theory should be of permanent value."

Is it really so very strange? Economists have largely devoted themselves to analyses of great national and international forces. A large part of their work is concerned with a description of, and an expression of those forces. Are their subjects too specialised? Has sufficient attention been paid to their methods by comparison with the material to which they apply them? Are those methods, except by a transference of knowledge occurring only after considerable familiarity with them, to be applied to the problems of the businessman? Is it possible to evolve for the businessman not ready-made solutions to economic problems but better defined methods by which those solutions can be reached in changing circumstances?

Perhaps there is an analogy here between the accountant and the economist. In both cases, the subjects are taught by example to a large extent. Both are concerned with values, a sphere in which clear and consistent thinking is extremely difficult. In their "Introduction to Logic and Scientific Method," Cohen and Nagel point out that logic and scientific method are usually confined to propositions about natural or other forms of existence, and that there are many writers who believe that scientific method is inherently inapplicable to judgments of estimation or value. I believe that greater attention should be paid to deliberate application of logical tests to economic thought to clarify our opinions, to discover their implications and to find out whether some of these opinions have more evidence in their favour than others. Of its very nature, I believe that economics is more in need of scientific method than the natural sciences. I believe, however, that traditional scientific method has inherent in it the implications of the natural sciences and is not entirely suitable, without further adaptation, for economics.

Exploration of the logic of decision and the logic of values may bring us nearer to realisation of Lord Keynes' description of the theory of economics as "a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions".

The place of logic as a tool of the economist may, for all I know, have been the subject of lifelong and profitable study by able men. There is considerable room for improvement either in production or dissemination.

It seems to me that exploration of the borderland between accounting and economics must begin by distinguishing clearly between economic theories and the technique of accounting just as economic theory must be distinguished in turn from social and philosophical theories, which is not always the case. What are

really economic theories of accountants must be revealed as such and considered as such.

The distinction between economic theory and the technique of accounting should be much clearer if the technique is explained in a logical statement.

It is reasonable to begin the attempt to record the transactions of a business with the statement of the position at a given point of time. The steps necessary to determine this situation for the purpose of economic decision are :—

- (a) To delimit the entity for which the statement is to be prepared.
- (b) To determine the goods or assets owned or controlled by that entity.
- (c) To determine the claims on those assets including the proprietor's residual claim.
- (d) To express those assets in terms of a common standard, money.
- (e) To classify both the assets and claims in such a manner that the decisions to be made on the basis of the statement are facilitated.

The resulting statement is traditionally called a Balance Sheet, but in the United States is sometimes referred to as the Position Statement. It is obvious that the effectiveness of the statement as a guide to decision depends on the basis of valuation and of classification. For the moment, however, we will proceed to examine the purely mechanical method. It follows that whatever valuation is employed that claims can have no value other than that of the assets available for their settlement; also since there must be a determinable right to any asset the value of assets cannot exceed the claims. An equation emerges which is the basis of control

$$\text{Assets} = \text{Claims thereon.}$$

This equation referred to as the Balance Sheet equation must necessarily persist through changes in the constituent items or in the total value of assets.

Book-keeping technique is, therefore, based on this equation. The ledger consists of a series of separate pages or accounts for each separate asset or claim. Each has two columns, one representing the debit or asset side of the basis equation, the second representing the credit or claim side. Adjustment of assets are affected by entering increases on the debit side and reductions on the credit side. Claims are adjusted on the same principle, though the sides are naturally reversed. Since the basic equation must necessarily be preserved, any adjustment of any one account must involve a compensating adjustment of some other account. This is the basis of the rule that "every debit has a credit" which merely reflects the more easily understandable equation that assets equal claims. From the point of view of method the system does focus attention on the fundamentally dual effect of a transaction, an effect which is otherwise commonly overlooked as witness the proverb that "you cannot have your cake and eat it".

By this method of continuing the basic equation through each separate account, changes can be made in the various items while preserving equilibrium. On closing the various accounts, similar items on opposite sides of the equation are brought together and shown as a net figure referred to as the "balance". These balances can once more be assembled into a revised Position Statement in which the equation has been preserved.

As it is obviously impracticable and unnecessary to prepare such a statement for every change, it seems reasonable to adopt a regular period at which such statements should be extracted. The significant differences between the two statements should be explained in summarised form. Ledger technique readily lends itself to this requirement.

Thus if an explanation of the net change in a particular asset or claim is required, the following steps will provide it:—

- (a) Decide how the explanations should be classified, e.g., in the case of work-in-progress, labour, materials or types of materials, etc.
- (b) Open accounts for each of these heads.
- (c) Enter the adjustments to these temporary subsidiary accounts in the first instance.
- (d) Transfer the balances of the subsidiary accounts to the ultimate asset or claim account at the end of the period thus showing in totals how the difference during the period is made up.

All accounts other than asset or claims accounts are thus of a temporary and subsidiary nature. They constitute explanations of change in one of the basic items. Thus the profit and loss account explains the change in the proprietor's or capital account in terms of income and expenditure. The primary purpose of the profit and loss account is to show the profit of the business. By the test of economic decision, it seems to me that such profit must be determined after full provision has been made for the replacement of the existing productive capacity. I do not say that such capacity should be kept intact or increased, but I think there can be no doubt that the accounts should reveal as effectively as possible what may be distributed as the reward of the proprietors and what must be retained if the business is going to continue to produce the same results in terms of real goods. The subsequent decision of the proprietors may be to retain the profits for the purpose of increasing the size of the undertaking, or it may be to distribute assets so as to reduce the size of the undertaking. In either event, it seems that the accounts should be so drafted that the effect of this decision is clearly understood.

The fundamental test of accounting effectiveness indicates the need for revaluing assets regularly on a replacement cost basis for the purpose of determining profit. The same test of facilitating managerial decision can be applied to the method of classifying expenditure and income and the detail required.

Costing provides a more detailed analysis of the profit and loss account catering for the more refined decisions required of management.

More recent developments divide an industrial undertaking into a systematic hierarchy of separate activities (cost centres) resulting in the production of an asset or a service which is explained in terms of the expenditure incurred upon it, so as to identify the extent of each factor for control. This division and sub-division of expenditure can readily be reproduced in the accounts.

The essentials of sound cost accounting are best examined in the light of the essentials of management which may be stated as follows :

- (i) To set standards.
- (ii) To record results.
- (iii) To compare results with standard.
- (iv) To take appropriate action.

These essentials indicate clearly the vital part which accounting plays in management and at the same time, they indicate the significance of one of the most important modern developments in accounting—standard costing. The standard is an essential tool of management, and its systematic use in the accounting system has resulted in greatly increased productivity. In the earlier form of costing, the expenditure under each head was recorded without systematic comparison, the assessment of output was possible only if the manager had himself standards by which to test each item. This required a detailed examination which was rarely practicable except in a very rough and approximate fashion. With the development of standard costing, expenditure is classified by separate operations for which standards have been evolved and the actual results are compared with standard. Because the results and the standard are expressed in money values, the manager of a large concern may be provided with merely the net variance for the main sections while his subordinates receive more detail about their section; eventually the variance on a particular operation is revealed to the operator and to his foreman. Thus, classification of expenditure follows primarily the lines of control, and this seems to be the ideal basis. The system provides that cumulative effects can be traced to constituent operations and facilities co-ordinated effort. This use of standards facilitates more effective budget construction, because in place of round totals not capable of satisfactory analysis, the budget can be built from standards of output and consumption. It thus becomes an operating plan expressed in terms of money.

This system also throws light on the basis of valuation. Achievement may vary from objective not merely because of physical reasons but because of changes in the values of money. The two must be distinguished. When a manager decides upon his programme for the following year, he must make a number of assumptions. One of these is the price which he will have to pay for the necessary goods and services, and as a result the price at which he can sell. The past price of goods or services leaves no indelible

mark upon them, and the manager must take them into account at the price at which they could be produced at the time he makes his decision. Subject to short-term conditions of the market, such as known surpluses, the manager must make his decision on the basis of anticipated production costs.

The use of standard costs based on anticipated prices, therefore, follows precisely the natural lines of decision of an intelligent manager. Indeed, since it provides a systematic piece-meal method, it enables that decision to be made on a much more thorough basis than would otherwise be possible. It enables subordinates to contribute effectively to decision and co-ordinates the ideas of the whole undertaking. Subsequently, it enables deviation from standard to be traced to the point at which it can be controlled.

It also facilitates delegation of authority since the standard enables the foreman and supervisor to assess output without detailed inspection of the work.

A development of the standard is of further interest from the economic and managerial point of view. When the service or product of an ancillary department is being charged to the main department, this can be done at a price competitive with outside contractors. Thus, each section can be treated as a little self-contained business for which a special budget can be prepared. This has the effect of making the supervisor much more cost-conscious, besides which it follows once more the natural line of intelligent managerial decision: if the question of "make or buy" arises, the accounts automatically provide the answer; indeed they keep that question constantly before management, including the supervisor of the section.

From this approach to the problem, it is but a short step to marginal costing. In the early stages of development, costs were apportioned on an arbitrary basis to the various products or services. Decision on abandonment of a department or a product could not be made by reference to arbitrarily allocated costs because some of these would not cease with the activity in question. The latest tendency is, therefore, to concentrate on escapable costs at the various levels. Thus, a small section is charged only with those costs which are incurred specially for it. The operating profit of the section is credited to the department of which it is part; against it are charged the costs which are escapable only if the department were eliminated. In this way, a long series of steps may be taken in assembling the total expenditure of the undertaking, and at any one step the escapable costs are properly allocated to facilitate decision.

From this arrangement, tables can be constructed showing what the position would be in the event of a series of contingencies which would alter the level at which costs become escapable or even the amount of the costs. Thus, if a machine is employed on a given level of output, the cost of that product has to include the cost of the machine. If the output doubles, and the machine is not over-taxed, the machine costs remain unchanged. When the capacity of the machine is exceeded, the machine costs increase sharply, perhaps to double the original amount. This approach recognises

that a very large proportion of total expenditure does not vary in proportion to output and is a further example of the approximation of modern accounting application to rational economic decision.

The use of tables and charts showing what the position would be in the event of specified variations from the fixed plan is a useful device, which is extending. The budget which was originally fixed on the basis of assumptions can now be varied in the event of uncontrollable deviation of results. The items that remain controllable are thereby distinguished from those which do not.

These tables are co-ordinated with the basic double-entry system and in turn provide information from which the accounts may be written up. In the same way, statistical and other ancillary information, not expressed in terms of money, is used to explain aggregate results.

The foregoing explanations indicate how modern applications of accounting follow the lines of managerial decision. There are three points of considerable importance which may now be noted.

- (a) The orderly system of tracing economic change which accounting technique provides can be applied either to past transactions or to projected operations. It is necessary to emphasise this because accounting is generally thought to be essentially concerned with the past. The budget prepared on this basis has the advantage of being properly co-ordinated in itself and facilitates comparison with subsequent results recorded on the same lines.
- (b) Since increasing detail of explanation is subject to the law of decreasing returns, a point must be reached when the additional benefit in making a decision is greater than the cost of the additional refinement. Accounting, must, therefore, be a matter of compromise as in all other economic decisions.
- (c) Since accounting statements can often only give an approximate indication of the facts, they must be interpreted before being used for a decision on the facts which they record. The skill of the person who interprets the accounts is a factor in determining their degree of refinement.

The greatest change in the role of the industrial accountant is that whereby he has concentrated on producing information closely designed to facilitate managerial decision, abandoning in the process traditional principles where necessary. Where previously accounts were produced and submitted without comment as the "facts", he now carefully examines and analyses them for the guidance of those who have to use them. This interpretive function, which is the most recent and significant development, has greatly improved the effectiveness of the industrial accountant and of the undertakings in which he is encouraged or permitted to play his part fully. This development in the United States is marked by the use of the name Controller for accountants

who play this more active part in management. The idea might be explained as follows :—

The initial duty of a Manager is to obtain and study such information as will enable him to form a reasoned judgment on which to take action. With the growing complexity of modern large-scale business, it had become impossible for the chief executive to devote nearly sufficient attention to this aspect of his duties. If it was not to be neglected, it had perforce to be delegated. Because of the need to preserve perspective, it had to be delegated to one man, who could co-ordinate information and draw overall conclusions. This was achieved by developing the accounting function and evolving the controller concept. This combines the function of producing information with the managerial function of studying that information, drawing conclusions and briefing the chief executive on items which merit his attention.

It is the chief executive who takes the decisions leading to action.

The significance of economic decision in relation to the industrial accountant will readily be perceived.

In the auditor's field, the connection between economic decision and published accounts, while obvious in general terms, cannot be traced in such detail. The extent to which published accounts guide the average investor can only be surmised. The same refinements are not possible. In the case of accounts for management, the method of presentation can be discussed with all concerned. In the case of published accounts, they must be judged on the basis of informed public opinion as indicated by financial writers and the leaders of the profession who attempt to gauge the usefulness of the accounts to the investor.

It is a subject that must be approached conservatively. Innovation, such as the use of replacement costs, may have misleading effects which cannot be readily anticipated. Accountants are well aware of how easily people are deceived by even the most simple statements, and I believe that this explains why the Institute of Chartered Accountants in England and Wales has opposed the proposed change in published accounts while emphasising the economic effects of inflation. Moreover, published accounts are subject to law, which, in my opinion, is far from settled. A number of cases on the subject have been decided, but it would seem to be unsafe to draw from them any conclusion except that the accounts should provide reasonable information about the financial condition of the concern consistent with good practice for the time being. Several years ago Professor Dicksee suggested that courts should be assisted by a panel of advisors on all cases affecting auditing and this seems to me a very sound suggestion. The limits of an auditor's duties have never yet been satisfactorily defined. Indeed, the following quotation from the January issue of the *Law Quarterly Review* is apposite :—

“ The bewilderment which so many decisions of the highest tribunals in England must have caused to the field of monetary law . . . (is) a matter of great regret.” (F. A. Mann referring to the decision in *National Bank of Australasia v. Scottish Union & National Assurance Co., Ltd.*, 1952 A.C. 493.)

The legal confusion on financial matters is not unexpected in view of the absence of that logical framework to which I have referred.

A clear definition of the basic principles will give direction to our thought both in the legal field and for orderly and effective development of accounting techniques throughout industry. Such a logical framework is necessary moreover to facilitate wider understanding of the significance of techniques by managers and others concerned in their use. It will take much of what should be routine in accounting work out of the realms of mystery and enable a greater degree of delegation leading to higher professional standards in the more important duties retained; this delegation of less skilled work has been a feature of the development of every profession. Such a statement as I advocate provides a logical check where at present the accountant has to decide too many problems of method from an amalgam of experience and intuition which could be better employed on less routine matters.

At the same time, it might be expected to give economists a better understanding of accounting and the contribution which they could make to the development of systematic management theory. It should facilitate the systematic examination of accounting terms and their arrangement in an acceptable logical scheme.

Closer co-operation between accountants and economists should provide the latter with very much more material than they have had to work upon in the past and an opportunity of checking the validity of their conclusions which is not so readily available when their theories are applied at a national level only.

The methods of the businessman may provide useful guidance for Government action.

The use of the technique of control of ancillary departments of an undertaking by standards might well be employed by the State where protective tariffs are employed or subsidies granted and where therefore a margin of control is necessary. To grant a tariff sufficient to cover actual costs plus a margin of profit may be to encourage inefficiency. The use of a standard systematically evolved in terms of reasonable employment of resources would provide the State with a measure of control without detailed interference in day-to-day management.

In business and in public authorities, there is greater need for method. In the sphere of manual labour, Mr. F. W. Taylor said: "The greatest production is achieved by giving a man a definite job to do and a definite time in which to do it."

This dictum still offers the greatest opportunity for increasing production to-day and is yet quite inadequately explored. It applies, too, by analogy to a much higher level in the hierarchy of control. In a large and complex undertaking, for instance, the departmental officer should be able to refer to written policy for guidance on what his job is and he, in turn, should be able to expand this policy into more specific directions to his subordinates until, by the time the policy reached the shop floor level, it should be expressed in accordance with Taylor's dictum. A clear

policy, expanded into a definite system of management, integrating a systematic scheme of budgetting for the future and accounting for the past, will undoubtedly contribute materially to that productivity which at the moment is so urgently demanded.

I do not suggest that method is a substitute for genius or for intuition, but it provides a powerful guide to genius and intuition by concentrating it on a limited field instead of permitting it to be unnecessarily dissipated. In the physical sciences, the method which derives from Bacon has enabled inventiveness to produce the striking achievements of modern science. That too much has in the past been claimed for method should not blind us to its advantages. The scope for greater use of method in economic life to-day might be comparable to the early stages of development of modern science.

Extended application of method requires that method itself be organised in a logical framework, a systematic analysis of economic decision, wherein the implications of a particular technique can be thoroughly studied. In this work, the economist, the manager and the accountant must co-operate.

For further practical achievements, a consistent body of theory is essential, and it is apposite to recall the remark of Dr. Johnson when informed of the publication of Adam Smith's *Wealth of Nations* :—

“ There is nothing which requires to be . . . illustrated by philosophy (more) than trade does.”

DISCUSSION

Mr. G. Brock.—In proposing a vote of thanks, I would confess that I have read Mr. Grace's address with an increasing sense of the almost illimitable field which the work of the accountant, in the broadest sense, may cover. I think, however, that sufficient emphasis has not been laid on the distinctive functions of the “ practising accountant ” or “ auditor ” and the industrial accountant ” or “ executive ”, a distinction which is not, perhaps, as clearly recognised or understood as it should be. The “ practising accountant ” or “ auditor ” deals with what he finds in the records of the concern. The “ industrial accountant ” or “ executive ” plays a large part in constructing these records. While the early training in accounting principles may be gained in the same school, namely, public practice, this is not an essential to the industrial accountant, who may receive his training in one or more industrial concerns.

References in the paper to “ the absence of a logical framework ” suggest that a logical framework would be desirable for the profession of accounting as a whole, but I am not sure that there is an absence of a logical framework in so far as the profession has developed up to the present, nor am I sure that a logical framework is possible or altogether desirable if, by the use of that expression, some delimitation be contemplated. I prefer to think that the gradual development of the accountancy

profession over the greater part of the past century will be continued, and that there will be no bounds to the scope of the accountant's functions, whether in practice or in industry. It is a tribute to the profession of practising accountancy that it has so far provided very largely the supply of industrial accountants.

As to the statement towards the end of the paper that the "limits of an auditor's duties have never yet been satisfactorily defined"—I hope they never will be defined, and that the auditor's duties will continue to rest largely upon an increasing sense of the attainment of desirable results. The Companies Act, 1948, indicates in its ninth schedule the matters which are to be expressly stated in the auditor's report to the shareholders, but there is no indication of the duties which the auditor should perform in order to make these express statements. Obviously no narrow construction can, or should be, placed upon "duties".

"Accounting for changing price levels" raises the very difficult question as to whether historical costs or present values should be used. It was, I think, inevitable that the Institute of Chartered Accountants in England and Wales should favour the historical cost basis of accounting, but it did add recommendations to its members to emphasise to clients the limitations of the significance of profits computed on the basis of historical cost, and in particular to draw attention to the desirability of making provision out of these profits to cover the effects which changes in the purchasing power of money have had upon the affairs of a business, particularly their effect on

- (a) the amount of profit which can prudently be regarded as available for distribution, and
- (b) the financial requirements for the maintenance of the business and the directors' policy for meeting these requirements.

Under the title "Accounting for Inflation", a recent article in the *Investors Chronicle* reminds us that in Belgium, for example, the Government decreed that as from the fiscal year 1947 companies might revalue their fixed assets on the basis of two and a half times their actual value in 1939. Depreciation might then be calculated on the revised values and *charged for taxation purposes*. The surplus on revaluation of fixed assets was not subject to tax, but could not be distributed. It was the second occasion on which Belgium had resort to this type of change—the previous occasion being in 1928 following the devaluation of 1926. Cases in these countries which have taken somewhat similar steps include Imperial Chemical Industries and Lever Brothers, but it will be obvious that if depreciation provisions were based on values adjusted to changing price levels there might in many cases be no residue of profits out of which to pay, for example, Preference Dividend. It is hardly possible to contemplate directors consciously writing up Fixed Assets to such an extent as might preclude the payment of Preference and Ordinary Dividends where the circumstances, apart only from the changing values of money, would justify such payment. Further, when values have been

written up there is the problem as to the basis on which the industrial accountant is to cost the products of his concern where these products have to compete with similar products produced elsewhere. In the U.S.A. it would appear that some companies revalue gross Fixed Assets by reference to the Engineering News Record Construction Cost Index, and adjust net income by reference to the Consumer Price Index of the U.S. Bureau of Labour Statistics. The submission of comparative tables of published results on the historical cost basis and recalculated results on the foregoing basis as a supplement to the published accounts is made with the object of disabusing the public mind of the idea that exorbitant profits are being earned. The use of recognised indices would seem to be essential to any general adjustment by reference to changing price levels.

In conclusion, I think that the greatest obstacle to the work of economists at large in regard to industry and commerce is the reluctance, particularly in a small country such as this, of businessmen to make any adequate disclosure of costs, sales, profits, etc., and I do not think that that obstacle will be lightly removed. Meantime, the need for the industrial accountant is becoming more widely recognised, and it would be for industrial accountants "the second major branch of the profession" to develop their own techniques and logical framework. I think Mr. Grace has done a service to the profession in the paper which he has submitted this evening, and I hope that it will induce the curiosity and study of many of his professional colleagues.

Mr. F. Lemass.—Mr. Grace has suggested that the methods used by accountants should be analysed and examined so that a set of principles could be set down, and a definition of the purpose of the profession made, all within a logical framework, the need for this arising from the fact that the methods used by accountants vary so much as at times to appear contradictory.

The problem, if one exists, arises from the development of the scope of the work of accountants, which, like other professions, has created the need for specialists. And the trouble is that the method employed by the general practitioner differs materially from that of the specialist.

The practitioner is concerned with historical costs based on money values, and it is suggested that by preparing accounts in that way, the information might be misleading in that the accounts do not show true values. For example, it is proposed that a revaluation of assets should be made in order to ascertain their replacement costs, upon which latter cost the charge for renewals in the accounts should be based, in order to determine the true profit and show the actual change in the Capital Account.

If this theory is accepted, however, it is not a far step to suggest that all the assets should be revalued each year, in order that their present value should be shown in the Accounts, and to ascertain the true value of the Capital Account.

If this were to be done, however, the result would be far too confusing, and it is better, therefore, to have accounts prepared on the basis of historical costs with suitable qualifications, which

can be made by the chairman of the company at the annual meeting, or which can be commented upon by reviewers in financial journals, etc.

As far as management is concerned, historical costs are not used by him in his managerial functions.

The specialist in accounting is the professional man who has developed into an industrial or administrative accountant concerned with standard costs and marginal costs, and who bases his estimates, not upon historical costs, but upon anticipated changes in values, the market potential in material and labour supply, etc. The methods adopted by him are, therefore, quite dissimilar from those adopted by the practitioner, but are essential for management in carrying out its functions.

It is considered, however, that management should not be guided blindly by forecasts of this kind, but should use them only as a tool, and rely also on experience, intuition and the ability at times to take calculated risks.

Mr. Lemass congratulated Mr. Grace on his paper, into which he had obviously put a lot of work, and which contained much interesting material which was not too easily digested, and which might readily form the subject matter for a number of papers.

Mr. McGuane.—Mr. Grace's paper is principally concerned with the consequences resulting from the inability of accountants and economists to agree on a definition of business profits. He also refers to recent developments in the field of management accounting, but time does not permit me to refer to this part of his paper.

The accountant's view of business profits might be summarised as the surplus of revenue over the costs and expenses related to and associated with such revenue. As a rule, the problem of measuring the revenue attributable to a given period gives rise to little difficulty or disagreement. It is the allocation of costs and expenses that constitutes the major problem. From an accounting standpoint, the distinguishing characteristic of business to-day is the extent to which expenditures are made in one period with the definite purpose and expectation that they shall be the means of producing profits in the future, and how such expenditure shall be dealt with in the accounts is the central problem of financial accounting. The need for charging costs or expenditure against the appropriate profit or period involves a practice or convention. So far as existing practice in these countries is concerned, the position is clearly defined; expenditure upon a fixed asset is shown at original cost, and this amount is allocated over the several financial periods of its useful life.

The broadest argument put forward by economists against the traditional accounting view of business profits is that it is "backward looking" instead of "forward looking". It has prime regard to the proprietor's capital expressed in terms of the monetary unit at the time the capital was subscribed and deems the preservation of this money capital to be the accountant's predominant concern. Consistently with this conventional accounting looks backward to the original or historical cost of fixed assets in

determining current depreciation charges, and normally charges for stock usage on a FIFO basis. If the value of money has changed between the earlier and current periods, this "backward looking" view means that money units of different values are combined in the accounts to make up total costs. This, say the economists, is illogical. A "backward-looking" approach is permissible only if the monetary unit is invariable. The economist adopts a "forward-looking" approach. He regards the proprietor's money capital as originally subscribed, as having legal, rather than practical importance. He considers that charges in the profit and loss accounts of business should be, as nearly as possible, in current money and not in the money of previous periods, and more specifically, depreciation should be computed on the current or replacement costs of fixed assets and stock usage should be calculated on current costs of stock. If this is not done, the economists contend that the capital will not be maintained intact and profits will be over-stated and moneys distributed and paid away in tax instead of being retained in the business to finance maintenance of fixed assets and stocks. At worst, the productive capacity of industry will run down; at best, resort will have to be had to outside resources of finance, not to extend productive capacity but merely to keep it at a constant level. In any event, the profit figure will be incorrect and misleading. In other words, the business must ensure that it earns from current activities sufficient to keep its productive potential intact before it deems itself to have made any profit.

By way of an aside, it may be of interest that the historical cost tradition is not established from the beginning of accountancy. This can readily be shown by an examination of authorities, such as "Littleton's Evolution of Accounting to 1900". Seventy years ago, provisions for property exhaustion were based either on cost of renewal or revaluation. Then suggestions began to be made that, in industrial accounting the charge should be based on the cost of the property that was being exhausted. The value of the £ was then rising, so that this procedure would be conservative. The proposal raised a host of questions: how should useful life be conceived and measured? How far should renewals and repairs be relied on to prolong life? How should the cost be apportioned between years? Should it be on the basis of time or use, or a combination of the two? Should interest be taken into account in the apportionment, etc.?

These and similar questions remained unsettled for more than 50 years. True, in recent years accounting bodies have expressed the view that the "straight line" method of apportionment was to be preferred; to this extent appropriateness to the particular case has been subordinated to a desire for uniformity. Yet those who oppose recognition in income determination of changes in the purchasing power of the monetary unit base their objections on the difficulty of choosing the most desirable method of implementation—difficulties that are certainly no greater than those encountered in depreciation accounting and they speak of that form of accounting as if it were free from any such difficulties, factual and objective.

I had the privilege of participating in the Sixth International Congress of Accounting held in London last June. One of the topics discussed at this Congress was fluctuating price levels in relation to accounts. Papers on this subject were presented by accountants from all over the world and were followed by extensive discussion. It emerged very clearly that the opinion of accountants throughout the world, whatever may be the formal expressions of the several associations to which they belong, was in favour of what has come to be known as Replacement Cost Accounting. There were differences of opinion as to detail, whether revaluation should be on a once-for-all basis or whether revaluation should be applied through successive years, but the principle was conceded. What we are looking for is a new convention to replace the old, which has been found wanting. This new convention must be valid in changing circumstances and must be permanent. I am not urging the adaptation of any one solution, but rather pleading that the problem be faced and solutions sought in the light of history and reason rather than of traditions whose very existence may be questioned. I would like to conclude with the following quotation relating to accountancy:—

“ This was the famed and quick invention which
Made Venice, Genoa and Florence rich.”

To-day it is doing more even than that: it is making its practitioners think.

Mr. MacHale.—I wish to concentrate on one aspect of the speaker's paper—that in which he deals with the different bases for calculating profits by accountants. They will differ mainly by reason of treatment of depreciation on a replacement cost basis or a historical cost basis and by different methods of stock valuation. The concept of profit is one on which there will have to be general agreement, at least among accountants, if the accountancy profession is to maintain its reputation. I was very much struck by an article in the *Accountant* some nine months ago concerning a company meeting in Wonderland. Accounts were submitted by Alice, the Mad Hatter and the March Hare. Each showed a different profit for the same company, depending on the different methods of depreciation and stock valuation, and the variations were between a small loss and a profit of £100,000. Although written in a jocular manner, the article had a very solid basis of truth.

I cannot agree with the previous speakers, who made a clear demarcation line between the industrial accountant and the auditor. The auditor, it was thought, is only concerned with the accuracy of the accounts on a basis of historical cost, although the industrial accountant should cost his products on a basis of replacement cost depreciation. I cannot accept that profit should have one meaning for the auditor and another for the industrial accountant—both are concerned with the accuracy of the profit figure, although the detailed accounts prepared will differ. Mr. G. Brock referred to the case of the board of a company who found that a revaluation of fixed assets and a depreciation charge

on a replacement cost basis would have reduced their profits and prevented payment of dividends. They decided not to revalue. In my opinion, this company was earning no profits and the dividends were being paid out of capital, as the depreciation provision was inadequate.

In my view public accounts should show the profits on a replacement cost basis, I am supported by George O. May, F.C.A., of the American Accountancy Profession. Writing in *The Accountant* of the 18th October, 1952, on "Accounting in Time of Price Inflation" he states: "For these reasons I have for the last 20 years been urging disclosure of the basis of accounting on which reports to investors are made as a primary requisite for the proper discharge of the responsibility of the accountancy profession to the body of investors." And, again: "If the accountant forms the opinion that the income balance reflects not the results of healthy business activity measured in units of the same purchasing power but only the unhealthy effects of inflation, he may, it is said, express this opinion only to management, leaving management to decide what shall be told to the patient investor. I should like to see this view also rejected as unacceptable."