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VOLUME 5, NUMBER 1, FALL 1969

THE INTERNATIONAL JOURNAL OF ACCOUNTING

EDUCATION AND RESEARCH

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

CENTER FOR INTERNATIONAL EDUCATION AND RESEARCH IN ACCOUNTING OF THE COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

The Center for International Education and Research in Accounting was established to foster the international development of education and research in the accounting discipline, to provide a base for the international exchange of ideas and materials relating to accounting education, to encourage and assist both accounting faculty personnel and students from other countries to come to the University of Illinois for study and research in accounting, and to provide faculty members for assignment to universities in other countries.

The Center, functionally and administratively, is a constituent part of the Department of Accountancy and the College of Commerce and Business Administration of the University of Illinois. The graduate training of a substantial number of international students has been an important activity of the Department for many years.

One of the specific goals of the Center is the publication of reports, booklets, and monographs which further the cause of advanced education and research in accounting.

V. K. Zimmerman, *Director*

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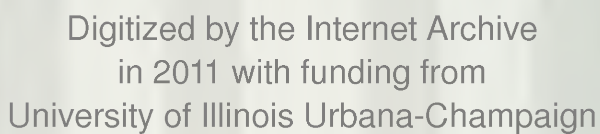
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A Note from the Editor

In both format and range of the subject matter of its articles, *The International Journal of Accounting Education and Research* has followed a deliberately flexible policy. The real diversity of the influences upon accounting internationally, the geographical, social, economic, and legal influences — are hopefully better revealed to the *International Journal* reader in this manner.

On three earlier occassions, the papers delivered at an international seminar of accounting have constituted the contents of an issue of the *International Journal.* This issue represents another such effort and includes the collective efforts of the speakers made available to the editor in written form at the seminar sponsored by the Center for International Education and Research in Accounting on May 15–17, 1969, at Urbana, Illinois. For the personal efforts expended by the speakers in preparing and delivering their formal presentation and in providing a manuscript for the editorial processes necessary for publication, both academic and professional accountants are debtors.

The articles comprising this issue represent both descriptive and analytical views of accounting and its neighboring disciplines from an international perspective.

V. K. Zimmerman

Urbana, Illinois
Fall 1969

*Progress in the Pursuit of Principles**

WILLIAM J. VATTER†

This occasion is indeed a memorable one, beginning another venture in the cooperative association of the practicing and the academic branches of accounting, and also acknowledging achievement and honoring two men by formalizing the Weldon Powell professorship — first, the man for whom the professorship is named, and also the man who will hold the first appointment under it. It is fitting that these two men should be associated in this, for they have shared ideas and efforts over a considerable period of time.

They shared the academic background of the University of Illinois. Weldon Powell taught here while completing his master's degree, even while he studied under Professor Littleton. And I think that the statement recently made to me by one of Weldon Powell's students — "It was he who first interested me in accounting" — could certainly be applied to Professor Littleton; for over a longer period, he certainly did much of the same thing. These two were close friends over a long period, and they missed few opportunities to renew and maintain that friendship. Their beliefs and ideas about accounting were similar, and

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* An address commemorating the inauguration of the Weldon Powell Professorship in Accountancy at the University of Illinois; Urbana, May 15, 1969.

† William J. Vatter has been Professor of Business Administration at the University of California at Berkeley since 1957. For more than twenty years before this, he was Professor of Production and Accounting Control at the University of Chicago. A graduate of Miami University, Oxford, Ohio, he holds an M.B.A. and Ph.D. degree from the University of Chicago. He is an Ohio C.P.A. and an Honorary Fellow of the Australian Society of Accountants.

In addition to a variety of articles in professional journals and handbooks, Professor Vatter has written a number of monographs on accounting subjects, among which are *The Fund Theory of Accounting* (1946) and a *Survey of Accounting Education in Australia* (1964).

they were held with comparable tenacity. One of Weldon Powell's associates has ventured the assertion that he was a kindly, patient, and tolerant man, but once he made up his mind on a matter, it could be changed only by overpowering reason. I suspect that those who know Professor Littleton could venture a similar statement.

Weldon Powell's move into the practitioner's phase of the profession was no idle choice — he lived and loved practical accounting — but his frequent appearance at various universities as a speaker or discussant, his abiding interest in the American Accounting Association and its activities, and his concern for complex and difficult issues, marked an agile mind and keen interest in ideas. For the last fifteen years of his life he was partner in charge of all technical matters for his firm; he prepared almost the entire technical procedures manual and did much work on auditing procedure. He was a member of the Committee on Accounting Procedure of the Institute from 1954 to 1959, and chaired the Special Committee on Research Program which set up the research program, and the structure, of the Accounting Principles Board. He was chairman of the principles board during the critical first years. His writings make frequent reference to the value and the need for research; in 1960 he wrote:

If we take our research in the field of financial accounting seriously — as I hope we will — there will be a need for some bold thinking. We will have to consider new ideas in developing theory, and to reach out towards new methods not tried before in developing relevant practices and procedures.

His interest in research did not make Powell an academician, nor did Professor Littleton's empirical objectivity make him a practitioner; but the similarity in ideas of these two men is clearly seen in their writings. Powell expressed his basic empiricism in these words:

One of the first steps in accounting research is to study prevailing practice, to find out what principles are being applied, and what procedures are actually being followed.

Littleton, in his *Structure of Accounting Theory,* shows his own empirical philosophy when he describes the evolution of principles:

Good experience becomes accepted practice; practicing develops preferred or particularly suitable methods of action. If the action (practice) is associated with a justifying reason (theory), we have a framework of associated ideas, which can be converted to a statement of an end or objective in association with a means of attaining that end. This statement — for accounting ideas — deserves the name "principle of accounting."

Both Powell and Littleton show clearly defined ideas about the diversity and individuality of enterprises and how these would affect accounting.

Littleton puts it in quite general terms:

The data in accounts are limited to facts involved in a given enterprise alone; financial statements can be understood only if we remind ourselves that they can speak only for *that one* enterprise.

Powell dealt with the question more specifically:

To me, there seems to be something illusory about the notion of uniformity. Conditions vary greatly from one company to another, even if both are in the same kind of business. The judgments of management differ, even when applied in the same or similar circumstances. I believe that we should strive to secure uniformity of broad principles, and that we should seek to eliminate undesirable practices; but I also believe that we should recognize a reasonable choice among acceptable alternatives.

The philosophy behind these two statements is clearly one of emphasizing the identity and the individuality of the business enterprise; this is, for both Littleton and Powell, a basic idea. Thus it is fitting that they should be associated in the present situation.

Moving to the main topic, the title, "Progress in the Pursuit of Principles," deserves some explanation. We are concerned with principles, even though there have been attempts to supplant this term. The notable attempt was that of Paton and Littleton's Introduction to Corporate Accounting *Standards,* on which a near totality of all graduate students in accounting since 1940 have cut their academic eyeteeth. Nevertheless, usage favors the word "principles." Some use this word to express the idea that accounting, like the classic sciences, should be structured in terms of basic underlying truths which demand a reaction for every action, a rule for every case. I doubt that many practicing accountants accept this idea, but I think we all believe that principles describe the logical content of accounting. Our most authoritative guide to accounting procedure may take its positions in the form of opinions, but it is called the Accounting *Principles* Board. The auditors' certificates refer religiously to a conformity with generally accepted accounting *principles,* even though there is no authoritative statement of what these principles are. The public press continues to press for better definition and more uniformity in the application of accounting *principles.* Whether we like it or not, "principles" represent the logic (good or bad) on which accounting reports are based.

Another word in the title is "pursuit" — this might mean pursuit in the sense of building a career, or in establishing some program to achieve an objective, but I use the term in its more literal sense. We seem fore-ever to be striving to capture some fundamental but ever elusive ideas which we hope will solve our problems. We engage in various activities and efforts in this chase; we group and regroup people, restate and amplify wordy pronouncements; we employ many intricate devices to overtake and pin down those underlying ideas which we seek. The quest seems to be as enticing as it is endless; the quarry is never caught, but the hunt goes on.

Perhaps Weldon Powell had something like this in mind when he wrote:

> There is greater diversity in accounting than there should be; there are horrible examples aplenty; present-day reporting can be considerably improved, and we should be doing something about all this. But let us keep our heads in the process. Let us work toward uniformity as an ideal, approachable but not attainable; and while we are on the way, let us campaign vigorously for better disclosure.

Evidently, he did not feel that accounting principles were immutable, or that they were basic and underlying truths on which the whole structure of accounting should be forever reared. To him, accounting processes and activities arose and took their meaning from those circumstances in which problems appear. This, again, is reflected in Professor Littleton's explanation of the way in which principles come into being:

> Gradually, as knowledge accumulates from many instances of use, it becomes clear that various aspects of knowledge in a given area are interrelated. Perception of these relations soon leads to a compacting of knowledge into generalizations. . . .

But one cannot refrain from an extension of this, to say that nothing in the growth of knowledge is ever settled finally. The search for order in science has always been a continuing process of repeated adjustment and refinement as new conditions, better tools and methods of observation, or merely our dissatisfaction with the fit of facts and ideas, make us change the framework through which we interpret the world. Restatement, rearrangement, and reanalysis serve to improve the structure of knowledge, but the edifice is never really completed: The last word is never known; and as Keyserling put it, life is forever a thing of problems. Progress is merely continued effort — what we learn and invent is the means of improving what we think we know. And like the red queen in Wonderland, we find that merely to stand still calls for running as hard as we can!

When Weldon Powell left this campus, no-par value stock represented a problem of some import — he helped John Wildman write a book on this subject. But now, no-par stock seems not to matter very much; I doubt if any intermediate text devotes more than a page or two to this. But, things that were of minor importance then are crucial issues now. Earnings per share were explanatory short cuts then — and we were cautioned "not to take such derived calculations too seriously." Now, earnings per share are at the center of interest, and in some cases the computation is a complex exercise in probabilities — probabilities that have no connection with random numbers and predictable distributions. Stock options — then a somewhat unusual way to award extra compensation to top executives — are now commonplace in the multiple efforts to dilute common share equities. Then leases were rental agreements; except for special situations as railroad equipment, nobody worried much about accounting problems connected with them; now they are accepted methods of financing, and we have codified rules to govern the accounting for them — different rules, please notice, for each party to the transaction. Then pensions were gratuities given by generous management to faithful employes who had been more or less — though not in an accounting sense — fully depreciated. Today pensions are complex problems in actuarial estimating, with at least several ways of accounting for them, all laced with tax implications. And the result of the great interest and effort in this direction has been to create investment entities which bring their own kinds of complexities and influences into the security markets as well as for accounting. In the milieu of these and many other similar shifts and changes, progress is not easily recognized — let alone defined and measured!

But there is a thirty-five year period involved, in which the pursuit of principles and their consequences have been the concern of accountants and academicians, and a number of things have occurred. Without going into much detail, some of the highlights of that period may be reviewed. This period opened just after the interchange of correspondence between the New York Stock Exchange and the special committee of the American Institute of Accountants. Carman Blough has said that "The release of this correspondence as an Institute pamphlet under the title "Audits of Corporate Accounts" is generally recognized as the first milestone on the long road to the development of accounting principles.

The five principles enunciated in that pamphlet were somewhat eclectic; they appear to have been advanced mostly as examples of what

principles might be. As stated, they were not much more than *caveats* for specific situations; the one general notion in the lot was — to my mind — that there was a basis for distinguishing between income and other phenomena, and that these other things ought not to be allowed to distort or muddle the income concept. However, it has been pointed out that the really underlying point of the pamphlet was that *companies* were expected to declare themselves as to what accounting principles they intended to use, consistently from period to period. The auditors' task was to attest to the carrying out of that commitment. This was fairly soon recognized as somewhat of an uncertain state, and the trend was on to discover or develop "generally accepted" principles of accounting. The committee on accounting procedure spent years at this task. Once having initiated the idea that something more than corporate choice was involved, the Committee kept itself busy trying to establish specific rules of procedures; the Haskins and Sells-sponsored study of extant principles (made by Hatfield, Sanders, and Moore) was an attempt to assist in this by codifying extant practice. But the procedures that the Committee on Accounting Procedure recommended were too often couched in terms of alternatives; these were frequently equivocal, and they were seldom evaluated thoroughly enough to establish relative merits. Meanwhile, the young and cautious Securities and Exchange Commission looked to the accounting profession for leadership in improving the state of accounting methods, contenting itself with the tenets of disclosure, materiality, and consistency, and trying to make sure that accountants *did* specify the procedures that *were* used in specific situations. The idea that consistent application of the same procedures was conducive to worthwhile results was fairly widely accepted. Weldon Powell expressed his own acceptance of this when he said "I am inclined to regard disclosure of the practices followed and consistency in their application from period to period, more highly than uniformity of practice."

This was the general attitude of the profession during at least the early part of this period; it it not too far-fetched to say that many accountants still hold this position. However, there were some significant attempts to specify accounting methods and to evaluate them in some detail. The efforts of the Committee on Accounting Procedure toward codification of rules did produce some results; the initial survey of accounting practices by Sanders, Hatfield, and Moore did — even though it made no great attempt to *evaluate* principles — give some idea of what accounting procedures were actually being used in practice, and

the efforts of the Institute Committee and its Research Bulletins were successful in discrediting some of the least desirable of these practices. Even so, the forty-three bulletins of the Committee were largely concerned with specific methodology and they left wide margins of choice between available methods. Inventory accounting, for example, was so broadly accredited as to have no definitive effect.

The efforts of the American Accounting Association were not materially different from those of the Institute in overall impact, although there were some minor differences in viewpoint — for instance, emphasis on the all-inclusive presentation of income, the statement on inventory pricing that condemned "artificial life," and the recommendation that supplementary reports should measure and present full adjustment for changes in price levels. But there was little real divergence in basic positions. The Association statements did attempt to pitch their discussion at a more general level, and to avoid some of the permissive specifics which marred the Institute bulletins, but they did not go very far in resolving debatable issues, or in crystallizing ideas in terms that would promote specific applications of general norms. The Association statements were less authoritative, because they were clearly labeled as opinions of committees, which did not imply official acceptance. At all events, the AAA statements failed to have much effect upon professional practice.

Probably the only effort of the Association that bore much fruit in this area was the Paton-Littleton monograph which, in the minds of some academicians, is still outstanding as the only thoroughgoing statement of accounting rationale produced in this period.

Meanwhile, the World War II and the post-War period brought its own set of issues: contract renegotiation and termination, reconversion, inflation, higher tax rates on regular and excess profits. By the mid-fifties there was increasing pressure for some narrowing of the areas of differences in reporting procedures. The Special Committee on Research Program headed by Weldon Powell took the position that "the general purpose of the Institute in the field of financial accounting should be to advance the written expression of what constitutes generally accepted accounting principles for the guidance of its members and others."

The approach suggested by this committee was to do something more than a survey of existing practice; it was to be a continuing effort to determine *appropriate* practice, and to narrow the areas of difference and inconsistency in reporting. The general aims were spelled out by

recognizing four levels in the approach: (1) the establishment of basic postulates, (2) the setting up of broad principles based on these postulates (3) the determination of rules or guides for the application of principles, based upon or at least consistent with (4) an extended program of research. The official pronouncements of the Accounting Principles Board would thus be broadly conceived, supported by generalizations derived from underlying postulates and implemented in accordance with the results of research. This was a rather drastic shift in approach; the earlier notion that accounting principles were evolved and generalized from practice was replaced by an emphasis on the deductive method. Indeed, Accounting Research Study No. 1 stated:

> We are driven to the conclusion, then, that relatively heavy reliance must be placed on deductive reasoning in the development of accounting postulates and principles. We must first recognize and define the problems to be solved, then move to their solution by careful attention to what "ought" to be the case, not what "is" the case. Hopefully, the two — "ought" and "is" — will not be far apart, but we have no reason to expect them to be identical.

However, this approach did not succeed as well as had been hoped; the positions taken in the third research report did not gain the acceptance that was deemed necessary before there could be any attempt to establish rules and procedures on such changed bases. Various reactions appeared; in commenting on the overall effect, one writer expressed his disappointment:

> While the Board set out with the intent of pioneering in new areas and with new procedures, the pressure from accountants opposed to radical changes, and the lack of immediate enthusiasm for the postulates and principles studies have been restraining forces. The result has been a decided shift backward toward short run goals, and the search for solutions to specific problems.

Whether or not this is an adequate portrayal of the situation, it is clear that the Accounting Principles Board of which Weldon Powell was chairman in 1963 came to feel that Paul Grady's proposal of an inventory of accounting principles offered the best basis of making renewed progress on the fundamentals of accounting. The *Inventory* was published in 1965. Weldon Powell reviewed the *Inventory* before it was generally circulated in March 1965; in that review he stated:

> While indicating that general agreement should be possible on the basic concepts and broad principles reflected in this Inventory, and that further progress should be made by eliminating methods that have outlived their usefulness, Mr. Grady says, on page 380, "We should, however, avoid false premises that all diversity in accounting can or should be eliminated in the investor owned competitive enterprise system in the United States."

Later in the same review, he strikes a hopeful note:

By causing attention to be focussed on points as to which there is disagreement and on practices as to which there are alternatives at this time, it should tend to give impetus to the Board's efforts to narrow the differences and inconsistencies in practice, and to reconsider old pronouncements with a view to updating them. This could be its most important function.

After citing Professor Littleton's comment on the educational merits of the inventory, he closed on a hopeful note:

For some time I have been advocating a proper blending of practice and theory. Perhaps Mr. Grady's *Inventory* will help to accomplish this.

Since 1962, the Accounting Principles Board has released fourteen opinions on various subjects. These have been received with various degrees of enthusiasm — at least one was met with distinct opposition. There are additional opinions still in preparation, awaiting more intensive consideration by the Board. But it is clear that, while progress of some sort has been made, the pace has not been rapid, and there are still unsettled problems in getting issues clarified and resolved.

We should also note the 1966 Statement of the American Accounting Association Committee; this was a clear departure from preceding Committee statements. The Committee has taken a quite emphatic stand as to the desirability of dual reports in which historical and current cost are aligned, item for item, in direct contrast. While this approach is a bit less "radical" than the proposals of the AICPA Accounting Research Study No. 3, it calls for full translation of accounting reports into current replacement costs, via market prices, appraisals, or index numbers. It is still too soon to tell whether or not this approach will gain acceptance; but it seems fairly certain that its implementation will be slow, if indeed the practitioners or their clients will be willing to try such an approach at all.

Our history does not stop here, nor has the pursuit of principles ended. We have merely sketched the highlights of a broad array of developments during a period in which much effort has been expended without achieving the goals that were sought. But Weldon Powell delivered another paper in October 1965 which is of some interest for this discussion. After considering some of the issues involved in the reporting of extraordinary items in the statement of earnings, he concluded with the following:

Finally, and I wish to say this as emphatically as I can, the individual members of the accountancy profession need to utilize their position as advisers to their clients to secure the adoption by their clients of sound reporting prac-

reports of the other owner of this 50 percent subsidiary group. There is a note to that set of financial reports which reads:

Prior to 1967 the company's investments in affiliated companies approximately 50 percent owned were carried at cost, and consolidated net income included dividends from those investments. In 1967 the company adopted the accounting method of including in consolidated net income its equity in the net profits and losses of companies approximately 50 percent owned, in place of dividends received from them, and adjusting the carrying value of the related investments to reflect its equity in the book value of the underlying net assets of such affiliates. Dividends received from the aforementioned affiliates in 1967 amounted to $28,652,000; consolidated earned surplus at December 31, 1967, included $21,973,000 equity in surplus of such companies accumulated from dates of acquisition. For comparative purposes, the accompanying consolidated financial statements for the year 1966 have been restated on the basis of the accounting method adopted in 1967; accordingly, (1) consolidated net income as restated was less than the amount previously reported by $22,776,000, representing the amount by which the company's equity in 1966 net income of the aforementioned affiliates was less than the dividends from such companies and (2) consolidated earned surplus as restated at the beginning of the years 1966 and 1967 was greater than the amounts previously reported by $213,971,000 and $191,195,000 respectively, representing the company's equity in surplus of the aforementioned affiliates accumulated from dates of acquisition adjusted for estimated intercompany profits in inventories and premiums or discounts on the related investments.

Other investments are carried at or below costs. . . .

The second footnote seems to refer to amounts that have little in common with the transaction as reported by the first of these companies; but on another page of the first company's report there is an indication that this transfer related to half the interests of the 50 percent owned group in European areas, and half the worldwide marine operations. One cannot be sure, however, of how this transaction looked to the participants.

The next illustration is a case of pooling; however, the treatment of two parts of the transaction is interesting:

That portion of the acquisition relating to the issuance of the Company's common stock has been accounted for as a pooling of interests and, accordingly, $369,000 has been included in consolidated net income (other income) for 1967, and additional paid in capital and retained earnings have been increased by $2,213,000 and $433,000 respectively. Such partial pooling has not been applied to prior periods because it would have had no material effect thereon.

The remainder of the acquisition has been accounted for as a purchase and, accordingly, the excess $32,445,000 of the amounts paid over the related

portion of the underlying equity acquired is classified in the accompanying balance sheet as goodwill.

Case six has to do with leasing, and a change in accounting method over two adjacent years; in the first year, the following appeared in the footnotes:

. . . While most lease contracts have a one-year term, renewals normally extend rentals over or beyond the three year amortization period. Depreciation of computing systems and related equipment is provided by the straight-line method and revenues from installment sales are recognized at the time of sale.

For income tax purposes, costs related to acquisition of leases are charged off as incurred, depreciation is computed by an accelerated method and revenues from installment sales are recognized as collections are made. Appropriate provision has been made for the related deferred income taxes. The amounts provided have been reduced by taxes on reportable income related to unrealized intercompany profits on sales of equipment to subsidiaries primarily for foreign rental.

In the following year, the lease contracts were commented upon as follows:

Commencing in the current year the Company entered into noncancellable long-term lease contracts which in accordance with current accounting principles have been recorded as sales. The discounted present value of rentals to be collected (less deferred interest income and provisions for other costs to be incurred during the terms of the leases) are shown in the balance sheet as "Long Term Contracts Receivable" in the aggregate amount of $13,809,728 less current portion of $3,678,986.

This footnote says nothing whatever about why this change in accounting was adopted, nor what effect this change had on the reported net income. It is possible that the note refers to entirely unprecedented arrangements and innovations in the long-term leases, but it appears at least likely that APB Opinion number 7 had something to do with it.

Another instance of the ways in which surrounding conditions may affect accounting principles is afforded by an item in *The CPA* for April 1969. In that item, the following appears:

Commercial banks are permitted to deduct from taxable income a provision for loan losses according to a special formula. For most banks, the formula produces a larger amount than would be necessary to provide for expected losses. The audit guide developed by the Institute Committee on Bank Accounting and Auditing permitted a normal provision to be deducted before arriving at net income, with the additional provision produced by the income tax formula to be treated as a segregation of undivided profits. But for various reasons bankers were reluctant to split the provision for loan losses.

For federal income tax purposes, net losses on securities transactions made during a year by banks are deductions from ordinary income which is subject to the corporate tax rate of 48 percent. On the other hand, if during a reporting year there are net gains on securities transactions, they are taxed at the capital gains rate of 25 percent. Sound financial management calls for banks to plan each year whether to have securities gains or securities losses. Often gains and losses are reported in alternate years and bankers have complained, with some justification, about the distortive effects of these transactions on net income. . . .

. . . At this writing, March 18, the supplement is not yet final, but it is clear that it would suggest averaging of both securities gains and losses and provisions for loan losses to reduce the distortive effects that would otherwise be obtained. The securities gains and losses would be spread by using a moving average of experience of recent years, such as six years. Unamortized gains and losses would be included in undivided profits, so that realized losses would not be shown as assets.

The supplement would suggest that loan losses, too, might be determined by the consistent use of a moving average of experience of recent years, such as six years. Amounts in excess of the normal provision so determined would be treated as an appropriation of undivided profits, to be carried in the capital funds section of the balance sheet as a contingency reserve for loan losses.

The conclusion of this item is as follows:

Taken together, APB Opinion Number 13 and these supplement to "Audits of Banks" represent a significant step forward in financial reporting for banks. Until now, the dominant influence in the development of bank accounting practices has been the protection of depositors. By bringing bank financial statements into closer conformity with those issued by other businesses, it will be made easier for shareholders and potential investors to make informal decisions, thereby serving the interests of both depositors and investors.

As one reviews cases and situations such as these, the idea of Progress in the Pursuit of Principles becomes blurred and confused. The forces of change which have operated over the last two or three decades have complicated financial reporting in many ways. The structure and implications of the income tax, the continuing threat of inflation, opportunistic moves toward rapid expansion and diversification, the emphasis upon institutionalized investment and other such factors have made it difficult to establish or clarify accounting principles; it is even more difficult to achieve or demonstrate acceptance of principles if indeed we can maintain them. And yet, improvement is even more necessary, as these complexities impinge more and more upon the uses of accounting data, and the public image of the profession.

Some suggestions have been made: at least some professors (and other people) have stated that unless the profession succeeds in its

efforts to clarify and authenticate accounting principles, other agencies can and will take over the job. The idea has been advanced that issues of principle in accounting could be adjudicated in a quasi-legal fashion by an accounting court. Much discussion has been precipitated around the notion of independence — some have said that independence is more than a mere condition or desideratum; it is, rather, a basic necessity for professional status — "Caesar's wife must be above suspicion." Whether an auditor can also prepare tax returns or render management services for the same client still remains an issue when these tasks are departmentally separated; and even if there is evidence that independence can survive in such conditions, the fact is that some people whose opinions are important doubt that it can. The "credibility gap" cited by *Forbes Magazine* a year ago is no less wide, even though our arguments to absolve our responsibility may appear, to us, valid.

One writer has suggested that perhaps it is both necessary and proper that the financial reports of corporations should not remain prerogatives of management. When a company goes "public," it ceases in large measure to be a private business; when companies are controlled by small minorities (with many shares being held by pension trusts, investment companies, insurance companies and foundations) the public nature of the business requires an accounting which does more than attest to "conformity with generally accepted principles consistently followed." This writer states (and he is not a professor of accounting) that the adoption of accounting principles is the province of the accountant, not the management. He suggests that the public accountant ought to be in a position to prepare financial reports without previous decisions by the management. Let management, if it so desires, write the footnotes or even recast the data into its own version of statements. But accountants should take responsibility for what is essentially their work.

What this may mean for the processes of auditing — particularly as to the selection of auditors, and the organization of the firms which perform such services — I leave to your imagination. But I am inclined to agree with this writer when he says that soul-searching has been going on for many years; the time is long past for effective action.

From a review of the history of the past thirty-five years and a recognition of the current pattern of problems, I am again reminded of the final sentence in the last published paper written by Weldon Powell:

> Statesmanship on the part of independent certified public accountants might come as close as anything to being the panacea for the ills of corporate reporting.

Whither Containment?

NORMAN A. GRAEBNER*

I

For twenty years the concept of containment has carried the burden of American foreign policy. By mid-century United States officials had anchored this nation's external purposes to the existence of one or more Communist-led power centers determined, unless stopped by superior counterforce, to conduct an eternal ideological and political war against other states until they had remade the world in their own image. By definition every Communist gain would not only increase Western insecurity and the danger of war but also would close additional doors to American trade and investment. If those — Democrats and Republicans — who set the course of United States policy never agreed on the character or the magnitude of the Russian threat, they chose to build and maintain the Atlantic Alliance as the surest guarantee against Soviet aggression and the recurrence of war. With the cooperation of European allies the United States re-established a political and military equi-

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librium on the continent. Indeed, the major achievements of postwar American policy — those which overshadowed all others — were the economic rehabilitation of Western Europe (and Japan), as well as the underwriting of a military structure capable of stabilizing the lines of demarcation in a divided Europe.

Measured by the absence of war and aggression, containment's achievements in Europe appear obvious enough. Despite twenty years of sometimes violent disagreement Europe's two power blocs maintained a reasonable peace. Even in the late sixties there was no European war in the offing. The diplomacy of the cold war, especially as it applied to Europe, was characterized on all sides by an essential conservatism. Eighteen years after the Versailles Treaty the world was inescapably on the road to another conflict. Without the benefit of any post-1945 settlement, defining at least for the victors a mutually-satisfactory *status quo,* the great powers recognized their overriding interest in coexistence and the acceptance of what they could not change except through war. With all its confusions and vituperation, post-war diplomacy performed with greater success than did that of the interwar period. Whatever the intent conveyed by their rhetoric, the Soviets behaved with remarkable restraint.

Still, the perennial immobility of the Iron Curtain, signifying the absolute failure of further Soviet expansion into Europe, defied any simple explanation. For those who, in 1947, accepted the dogma of a Stalinist threat against Western Europe and anticipated the fall of France and Italy to Communist control, Europe's stability simply measured the triumph of the basic economic and military decisions of the Truman years. Long before 1960 the NATO countries had entered an economic boom totally unprecedented in their history. Western Europe radiated economic and technological power as well as cultural, literary, and scientific experimentation. It carried the responsibility for its own economic welfare and made some contribution to economic progress elsewhere. Indeed, the Common Market of the Six had created one of the world's most productive commercial entities. Supported by expanding economies, the governments of Western Europe had achieved internal stability. So successful were the Marshall Plan and NATO in underwriting Europe's recovery that it was no longer certain during the sixties whether the region's confidence emanated from the alliance or from the sheer energy and productivity of Western Europe itself.

Europe's prosperity confounded the Communist predictions of the postwar economic and political collapse of the capitalist nations. By the

sixties the Western economies had outstripped those of the Communist world. Contrasted with Western innovation the Communist states appeared timid and lacking in ingenuity. Both the USSR and its European satellites suffered the ill effects of state planning and a resulting lag in agricultural and industrial production. Even more significant, the Soviets in twenty years had made no genuine political gains in Europe or elsewhere. Rather during that time the Communist bloc had suffered a deep and debilitating division, cutting deeply into the discipline which appeared to characterize the early postwar Communist movement. Not only had the Soviets failed to maintain unity within their bloc but they had actually lost control of the Communist parties which lay outside the region of their direct military influence. Albania, Yugoslavia, and China had slipped beyond Kremlin direction; even the nations of Eastern Europe challenged Soviet leadership in varying degrees. By creating divergent policies and interests, this split weakened the bloc; the open and often bitter quarrel between Moscow and Peking could only create insecurity for both and limit their effectiveness elsewhere. Soviet repression of the liberalization movement in Czechoslovakia during August 1968 measured again the ideological weakness and the strategic insecurity which permitted a defiant Czech nation to harass the Soviets and their fear-ridden clients in East Germany, Poland, and Bulgaria. Twenty years of European evolution had demonstrated that communism was scarcely the wave of the future.

Containment, in granting Europe a long period of recovery, had encouraged the return of many historic tendencies, among them the rebirth of nationalism which permitted the normalization of continental politics and diplomacy. Europe's evolution toward stability measured the effectiveness of the most successful and statesmanlike body of basically peacetime foreign policy in the history of the United States. That this nation through the Truman Doctrine, the Marshall Plan, and the North Atlantic Alliance had played an essentially normalizing role, Europe's leaders readily admitted. For the first ten postwar years, especially the United States had been the provider, and western Europe the recipient, of a unique transfusion of resources and encouragement. If it was true that much of this cooperative effort stimulated the American economy as well, the billions which the United States expended were aimed less at the wielding of authority or the quest for special privilege than at the establishment of a decent level of international order. The triumphs of this United States-Western European cooperation were too pervading and mutually beneficial to be dismissed as an

important, but temporary, historical experience. Still the contribution of the Allied effort to European security, especially after mid-century, defied any precise measurement.

II

For many Americans and Europeans alike Soviet conservatism in external policy resulted less from NATO and European recovery than from the nuclear deterrent in the possession of the United States, Britain, and France. After 1960 the power of retaliation in Western hands was no less than terrifying. That the alliance's less than thirty divisions remained far below what NATO commanders regarded essential for conventional action seemed to matter little. NATO's basic defense structure was nuclear, for European spokesmen were concerned less with winning than with preventing war. To that end the United States, by the admission of Secretary of Defense Robert McNamara, maintained tactical nuclear warheads in Europe equal in destructiveness to five thousand Hiroshima-type bombs. Behind these forward defenses were the British and French nuclear arsenals as well as the full retaliatory power of the United States, based across the Atlantic and fully under American control, but pledged to the defense of Europe. United States leaders reminded the American people on numerous occasions of the probable cost of a nuclear war. President John F. Kennedy, for example, addressed the country on July 26, 1963:

> A full-scale nuclear exchange, lasting less than 60 minutes, with the weapons now in existence, could wipe out more than 300 million Americans, Europeans and Russians, as well as untold numbers elsewhere. And the survivors, as Chairman Khrushchev warned the communist Chinese, "the survivors would envy the dead." For they would inherit a world so devastated by explosions and poison and fire that today we cannot even conceive of its horrors.

It was not strange that Western Europe had experienced no direct military assault and that few Europeans anticipated greater danger in the future, provided that NATO maintained a credible deterrent.

Power alone, however, whatever its magnitude, had never prevented war. The continued absence of aggression in Europe suggested that the unresolved questions in every confrontation between East and West had been considerably less than vital for one side or the other. Europe's stability reflected a realization among Western and Soviet leaders that the issues of the cold war were better left unsettled than disposed of through war. The balance of power across Europe had ruled out any purposeful gains from the use of force. Western and Soviet effort had succeeded merely in establishing and perpetuating a stable division of

the continent. As James Reston of *The New York Times* once observed, "At no period of history have enemies faced each other for so long over so vast an area and yet shown more restraint than the Western powers and the Communists." There had been innumerable incidents and provocations, even some minor skirmishes, but no nation possessing nuclear striking power had approached the point of no return. Most lines of demarcation had been well established through tradition and practice, if not through diplomatic settlement; to tamper with them would set off a war which no nation desired.

By the mid-sixties many cold-war students no longer attributed Europe's stability directly to Western policies and expenditures at all. They attributed Soviet inaction less to NATO and the nuclear power of the United States than to the absence of fundamental Soviet aggressiveness, especially by military means. European containment had achieved its triumphs against a nonthreat. If Stalin had no designs on Greece, Turkey, or Western Europe (and there is no clear evidence that he did), then the dogma of Soviet expansionism was a fantasy and containment comprised an expensive over-reaction which produced prosperity in abundance but little else. As long as Western scholars and diplomats had no access to classified Kremlin documents, they could not demonstrate mathematically the extent of Soviet ambition toward postwar Europe. But in the sixties the traditional orthodoxy — that the full commitment of United States conventional and nuclear power to the Atlantic Alliance alone saved Western Europe from Soviet encroachment — no longer enjoyed its former certainty. Not one of the specific issues over which the United States and the USSR began their quarrel in the immediate postwar years had been settled; yet the cold war, after twenty years, was no longer what it had been at mid-century. Much of the quarreling, moreover, had differed little from that of previous ones and thus hardly merited the designation of cold war. In the absence of aggression and agreement the long-range interests and intentions to be served by policies of containment remained illusive indeed.

III

Containment was born and remained a vehicle for bringing American manpower and productivity to bear on world problems. Whatever the achievements of containment, therefore, they were limited to what the economic and military power of the United States would accomplish. Unfortunately it is true that for an industrially predominant nation the creation and employment of force often becomes its least

demanding contribution to international life. The record suggests that the American people have found it easier to win wars than to prevent them or to translate overwhelming military victories into periods of genuine stability and peace. What the United States can do better than any nation in history is perform technological feats, some of which comprise laudable gains for humanity. And a nation, no less than an individual, prefers to do what it can do best. For that reason it was far less exacting for the United States government to put a man into space than to resolve a neighborhood problem in an American city. It was far more agreeable to most Americans to send the Apollo 8 mission to the moon in December 1968, at a cost of over $300 million, than to reactivate the war on poverty. "The American society is so unbalanced," declared a team of Japanese journalists, "that it is capable of sending space fliers to the moon while it lacks the ability of sending its citizens to a park for peaceful recreation in a mid-summer night." Likewise in world affairs, it was easier for this nation to distribute economic and military aid around the world than to define the interests of the United States, accurately and usefully, in any quarter of the globe.

Power unfortunately lacks the elements of calculating success, for power is merely a means, not an end. The external gains of power — whether economic or military — can be measured only in the diminution of the challenges which prompted its creation. Inasmuch as the Soviet danger of the immediate Postwar years never lent itself to tested, precise definition, the changes wrought in Europe by twenty years of containment conveyed convictions of security only to those Americans who had always regarded the USSR as fundamentally a *status quo* power, at least in its relationship to Europe. For them the achievements of twenty years had reinforced Europe's stability by diminishing the gains and increasing the costs of any possible Soviet aggression. Even in affording the Soviets ample opportunity to demonstrate the inefficiency of their system, containment seemed to emerge triumphant. But for those Americans — many of them in high official position — who identified United States security with the uprooting of Communist power as well as Communist intent, not the initial objective of containment at all, the gains of twenty years had augmented Western security little if at all. In their search for an absolute security against Communist expansionism which always seemed to elude them, they began the process of converting the means of policy into ends in themselves, even at the potential cost of rendering the very concept of containment irrelevant.

Whatever the achievements of American power, they did not, for official Washington, rebuild the nation's confidence or contract its mili-

tary commitments abroad. Actually the United States in the mid-sixties was more fearful and more widely extended militarily than it had been twenty years earlier. American spokesmen acknowledged repeatedly the changes within the Communist bloc and anticipated even greater diversity in the future. At times they even attributed the disintegration of Communist unity to the successful performance of containment. Decreasingly United States officials referred to the Communist "bloc" at all. Still they refused to accept the considerable normalization of Europe's political and economic life as a measure of increased security or a demonstration of limited Soviet ambition. If the Soviet empire experienced decomposition, it did not seem to gain any genuine liberalization. Nor to official Washington had twenty years of European stability undermined the Kremlin's continuing ideological imperative to wage war on the capitalist states by all means short of open aggression. Until the Kremlin abandoned its career of world revolution the United States could not regard "peaceful coexistence" as other than a continuing global struggle by means other than war. "We must," declared White House adviser Walt W. Rostow in September 1962, "base our policy toward the Communist bloc on the assumption that they would seriously consider the risk of initiating a nuclear war if they judged that we were vulnerable." If specific Communist policies differed from one another, warned Secretary of State Dean Rusk, they differed only on the method of carrying out the goal of world domination.

What disturbed government spokesmen was the breakup of the postwar bipolar world, for if the multiplicity of national decisions seemed to render the world highly flammable, at least it was familiar and unambiguous. Western responses always appeared unified and constructive. But those policies of containment had ultimately aggravated, not reduced, the danger of Communist aggression by diverting Soviet energy and resources from Europe to the support of wars of national liberation where the Soviets, by official doctrine in Washington, could tap the manpower and aspirations of others. Thus European stability and the mutual recognition of limits failed to motivate any fundamental Soviet-American view of passing events. Kremlin policy continued to oppose the will of the United States in Cuba, the Middle East, and Vietnam. This absence of agreement on matters of secondary importance kept the cold war alive. Indeed, to administration spokesmen it was Soviet and Chinese interference in Asia, Africa, and Latin America that produced violence and exaggerated conflicts of interest in places and situations where otherwise American and Soviet diplomats might have limited the disagreement to the normal competition between big-power rivals.

Faced with successive and varied challenges outside Europe, United States responses became increasingly unclear and productive of genuine, even sweeping, national divisions. Still, to the United States government, the nation's power and self-assigned responsibility for world security gave it no choice but to confront every Communist challenge, unilaterally if necessary. Those who demanded the ultimate destruction of the Communist danger were seldom troubled by cost. If the enemy was resilient, it was also perishable. Whatever its immediate threat to world security, Soviet-based communism's complete disposal lay within the capabilities of western power and perseverence without the necessity of war. "History," Rostow assured the nation, "is not standing still within the Communist bloc."

Critics of United States cold-war policy questioned, above all, the absence of discrimination in the official evaluation of Communist challenges to the *status quo* in Europe, the Middle East, Asia, and elsewhere. Whatever the variations in the specific Communist movements, the United States always seemed to equate the containment of Soviet and Chinese power with the obliteration of every incipient Communist challenge regardless of its nature, size, and remoteness. Wherever avowed Communists appeared in opposition to some established regime, they managed to provoke an identical response in Washington. Hans J. Morgenthau attempted to explain the monolithic behavior: "To send the Marines is easy; it is simply a matter of military logistics. But to cope with these different Communisms on their own merit, to weigh their character, to determine their influence upon our interests, to calculate how our action might influence this particular Communism in one way or the other, requires an enormous subtlety of intelligence — which seems to be in short supply in Washington."

IV

Containment's tragedy was its failure to eliminate fear as the most powerful force in United States foreign policy. Fear stimulated the endless quest for security; at the same time its very imprecision never permitted the nation to discover when it had achieved an adequate level of defense. As early as 1963 the British physicist and Nobel Prize winner, P. M. S. Blackett, estimated the nuclear power possessed by the United States and the USSR together equal to some fifty billion tons of TNT, or the equivalent of ten tons for every inhabitant of the globe. President John F. Kennedy, that year, pointed to the danger of this arsenal when he addressed the United Nations:

For too long both of us have increased our military budgets, our nuclear stockpiles and our capacity to destroy all life on this planet — human and vegetable — without any corresponding increase in our security.

Five years later the perennial fear and distrust of Communist power had generated the mightiest arms race in history. The United States and the Soviet Union, concentrating on the most destructive weapons ever invented, together spent almost $130 billion per year on their defenses. For the United States alone the cost of twenty years of containment approached a trillion dollars. What perpetuated the search for security in weapons systems was the capacity of offensive weapons to exceed the possibilities of defense. Still the quest for a defensive network continued. Throughout the mid-sixties the White House, under the advice of leading scientists, rejected Pentagon demands for an antiballistic missile system and reminded the Kremlin that such a system would stimulate another arms race without increasing national security. But in 1967 the Soviets began to ring Moscow with antiballistic missiles. Then in June 1967, the Chinese exploded a hydrogen bomb. Finally in September Secretary of Defense Robert McNamara announced that the United States would build a thin ABM system, aimed solely at the Chinese. Congress accepted the program at a cost of $5 billion without any serious debate under the assumption that the nation could not afford to take risks in matters of defense. Scientists warned that at current weapons levels there could be no sure defense. Yet McNamara's successor, Clark Clifford, announced in March 1968, that he would seek "clear-cut nuclear superiority" over the USSR.

This thin ABM system appeared only the first step toward a full network aimed at the Soviet Union, to cost an estimated $50 billion. Still few experts believed that even such a defense structure could save the country from general destruction in a nuclear war. McNamara, while recommending the new departure in the arms race, admitted in Montreal that nuclear weapons were no source of security. In October 1968, Vice-President Hubert H. Humphrey condemned the nation's reliance on a precarious balance of terror. "This," he said, "is a balance of insanity, an immoral balance that undermines our very claim to be civilized." The root causes of violence, many officials agreed, were nationalism, poverty, and hopelessness. "Yet the arms race goes on," James Reston concluded, "not because men have forgotten the effects of war, but because they do not remember its causes." Obviously the capacity to pulverize the entire surface of the earth was not security enough. As the 1968 presidential campaign reached its final days,

Richard M. Nixon, the subsequently-victorious Republican candidate, made clear his determination to build up the defenses of the United States. His Secretary of Defense, Melvin Laird, confirmed that purpose.

American reliance on power and fear, in what United States officials regarded an unchanging and dangerous world, weakened United States relations with NATO on two important issues: the control of nuclear decision-making and the establishment of mutual objectives. At mid-century the troubled European allies accepted the nuclear umbrella of the United States as a matter of immediate necessity without posing the question of ultimate United States intentions toward Europe's defense. It required only the Soviet possession of long-range missiles capable of reaching the United States, however, to change the relationship of the United States to the Atlantic allies. For Charles de Gaulle especially the vulnerability of the United States to direct attack placed the reliability of his country's commitment in doubt. The continued reliance of the European nations, France included, on the American nuclear deterrent, when the very use of that deterrent would threaten Western civilization itself, required either a wide dissemination of nuclear control or an admission that the alliance could not act jointly in a crisis. The latter choice would eliminate the fundamental rationale for the existence of the alliance. Europe was trapped between its desire for independence and its acceptance of United States guardianship in matters of defense.

This emphasis on nuclear defense created a hierarchy of influence and prestige within the alliance increasingly intolerable to those nations which lacked the power of decision over their destiny. Europe would renounce its request for national deterrents only if it gained an unquestioned right to share the control of American weapons. The United States, imploring Europe in the interest of economy as well as nonproliferation to rely on U.S. nuclear power without sharing in the control of that power, could reassure Europe only through the constant repetition of verbal guarantees. Thus NATO harbored fallacies in matters of defense which ultimately would destroy it or compel it to become a genuine community of nations. It was only the absence of any foreseeable Soviet threat to Europe that permitted questions of means to continue unresolved.

What aggravated the demand for nuclear sharing was the absence of allied agreement on matters of ends. Survival itself was no longer an issue. It was the divergence of policies more than problems of nuclear control that undermined the Alliance. Within a genuine community of interest the question of mutual defense would not have arisen at all.

But no longer did the allies even share the same enemy. For France the problem was Russia and China; for the United States it was Communism. For the Europeans, moreover, the reduced sense of urgency gave NATO a sliding scale of importance. For the United States, still concerned primarily with the maintenance of Western power and unity, what mattered was the existence of a credible nuclear deterrent to prevent a major war and an adequate conventional deterrent to contain a limited outbreak. West Germany shared these objectives. The United States demonstrated its reluctance to change the European *status quo* with force; in deference to domestic and German pressure it refused to recognize the political division of Europe. The continued United States concentration on power and conflict disturbed those Europeans who believed that Washington overestimated the Soviet danger. As British historian Geoffrey Barraclough once charged:

> There is no greater obstacle to sane political thinking than our obsession with the cold war . . . and the real question is whether our obsession with the cold war is not a total misjudgment of the current world stituation, and whether the fundamental criticism of American foreign policy is that, by myopic concentration on the cold war, it has misread and fumbled the challenge of the twentieth century.

Other allies, led by France, entrusted their homes to the Common Market, increased East-West trade, further detente with the USSR, and the recognition of the political realities of Eastern Europe. Many Western leaders agreed that a strong, independent Europe might resolve both the German and Russian problems more effectively than a powerful American-lead Atlantic Alliance. Western Europe, united with Britain and encompassing 250 million people, appeared to wield sufficient economic and diplomatic power to make its weight effective. Still the European allies were badly divided among themselves, and, in the absence of a single European champion, they had no choice but to accept United States leadership and look to the United States for their ultimate security. Again what held the Alliance together despite the lack of agreement on most external issues was the general recognition that any loss of United States support would terminate an arrangement which, if it had not terminated the cold war, had brought a renewed confidence and a remarkable period of stability.

V

In any fundamental conflict the end of power is settlement or war. In limiting NATO to twenty years, Western leaders assumed that the

original agreement was temporary and that, if anchored to a unified and reasonable body of objectives, it would, in negotiation with the Kremlin, achieve some resolution of Europe's divisive issues. Washington accepted no less a goal for containment than the opportunity to negotiate from strength. President Kennedy declared quite characteristically in 1960, "It is only when we have military force strong enough to convince the Russians that they will never be able to gain any advantage through military strength that we can hope for fruitful negotiations." Similarly Secretary Rusk assured the nation a year later: "We are not dealing in the world these days from a position of weakness. . . . I have no doubt the Soviet government knows a good deal about our strength and has an accurate assessment of it." In defending the nation's decision to construct the thin ABM system, Secretary Clifford asserted, "You deal much better with the Soviet Union when you deal from strength." Shortly thereafter President-elect Nixon announced that he would expand the space program to assure the United States the needed power to negotiate from strength.

That the United States had long possessed sufficient strength for successful negotiations seems clear enough. Indeed, United States diplomatists by the mid-fifties enjoyed the backing of a universally-recognized national capacity to reduce much of the earth's surface to rubble in a matter of hours. Still there were no fruitful negotiations. In Europe this was a question of only moderate consequence. As early as 1945 the USSR was in control of Slavic Europe — its historic territorial objectives. Thereafter the actual policies of the United States and the Kremlin, whatever the rhetoric they employed, were designed primarily to stabilize a divided Europe. Power alone secured the essential Western purpose in Europe, not because the threat of nuclear war was rational, but because there was little danger of war. Yet if negotiation was the declared end of containment, and the United States possessed sufficient force to obliterate much of the USSR in a single day, then why was there no settlement? No negotiation from strength? The immediate explanation rests with the fallacy of the concept itself. Coral Bell, in *Negotiation from Strength,* suggests two reasons for avoiding negotiations: If a nation is weak it cannot afford to; if it is strong it does not need to. It is never clear, moreover, when a nation has achieved the optimum conditions for successful negotiation. As George Kennan once wrote, the search for the ideal military posture is the enemy of negotiation. Unfortunately for the West, the USSR also experienced a vast internal development and an accumulation of such power and

energy that the total Western effort achieved a military and political stalemate rather than victory or a settlement even partially on Western terms.

Actually the failure of negotiation hinged less on the elusiveness of power than on the objectives pursued. Whereas both the United States and the Soviet Union, in their day-to-day decisions, accepted the *status quo,* in their official rhetoric they rejected the *status quo* as a satisfactory long-term condition. For the United States this revisionism never implied hegemony. Rather it sought the creation of a compatible world in which all nations would be governed by peaceful cooperation and the rule of law. Such a world would assure the United States the necessary security, stability, and openness to assure the triumph of its liberal principles. Paul Nitze expressed this objective well when he declared that the United States policy had challenged the Soviet Union everywhere because this nation's interests had "become directly dependent on the creation and maintenance of some form of world order compatible with our combined development as the kind of nation we are and believe ourselves capable of becoming." Dean Rusk phrased such universal objectives in his repeated promise of victory. "In political terms," he said, "we seek a peaceful world of independent nations, each free to choose its own institutions so long as it does not threaten the freedom of others, and all free to cooperate in the welfare of mankind." The goal of America, he insisted, was not a victory of one people over another, but a worldwide victory for freedom. Unfortunately such universal purposes, anchored to the principle of self-determination, either meant nothing or they meant the perennial involvement of the United States in the affairs of other nations. Aside from such areas as China and Vietnam the concept meant nothing, for the United States did not pursue self-determination as a universal goal but rather as a specific rationale to undo those who endangered the political *status quo.* If self-determination were indeed the end of containment, it was never clear how any negotiation could achieve such purposes in Russia, China, Eastern Europe, or even Franco's Spain. Such objectives defied negotiations. They also defied war.

VI

Thus containment evolved after mid-century as an end in itself. Beyond it lay not a negotiated peace but the obliteration by force of any and all unwanted challenges to governments supported by the United States. Traditionally the purpose of force is the management and limita-

tion of change; for the United States this entailed specifically the prevention of further Communist expansion. If the Communist regimes continued to avoid settlements based on open and free negotiations which recognized the principles of peaceful change, the United States had no choice but to wield force in every confrontation until either the danger or the aggression ceased to exist. As General Mark Clark reminded an audience of veterans in February 1965, "You can't do business with the Commies except by force, with no appeasement whatsoever." In practice every diplomatic relationship with a Communist-led government included an assessment of the military power available and the conditions under which it would be used. "Our first task," declared Walt Rostow in September 1962, "is to frustrate all forms of Communist aggression, at any level, by pursuing . . . policies designed to build toward a free-world community and to defend that free-world community at every level of aggression." The key to United States policy, therefore, was simply the nation's willingness to exert force to any level required to break the will of an enemy. President Lyndon B. Johnson acknowledged the nation's primary reliance on power in April 1965: "We will use our power with restraint and with all the wisdom we can command. But we will use it."

Writing in *The New York Times Magazine* of June 7, 1964, Rostow analyzed at length the role of weapons, both nuclear and conventional, in the conduct of United States foreign policy. "In broadest terms," he noted, "the military objective is to create from these instruments an environment which will permit us to achieve maximum deterrence of deliberate aggression, and especially aggression with nuclear weapons; to minimize the likelihood of uncalculated, unpremeditated or unintended nuclear conflicts, and to deal successfully with aggression in such ways that the intensity of conflict is controlled, enemy escalation is deterred and general war does not result from the uncontrolled pressures of crises and limited conflicts." For Rostow the Cuban missile crisis was a classic example of the meaured use of force to any level required to achieve the withdrawal of the Soviet missiles. Still the argument that the United States can manage events through the mere threat of violence is not clear. Rational governments respond readily to questions of national interest and strategic advantage. In both respects the United States, in the Cuban crisis, had the total advantage. Had the confrontation occurred in Hungary, as in 1956, the United States would have emerged with considerably less success.

Similarly Rostow claimed success for United States policy in Laos and Vietnam because presidents Kennedy and Johnson had threatened

military retaliation to any level necessary to punish those who sought to overthrow the *status quo* by force. Rostow described the triumph of United States policy in Southeast Asia in these terms: "The military initiatives with respect to Laos and Vietnam, in pursuit of clearly defined and limited political objectives, would have had no serious effect on the course of events unless the Communist leaders concerned were convinced that echeloned behind these limited demonstrations of force, there had been both the capabilities and the will to deal with every form of escalation they might mount in response, up to and including all-out nuclear war." It seems strange that the threat of retaliation to any level, including nuclear war, did not eliminate the subsequent need to despatch over a half million soldiers to Vietnam. Obviously the military formula did not work.

Herein lay the failure of policy. For the purpose of global containment was not to destroy the enemy in a series of wars but to prevent change through the absolute assurance that any aggression would ultimately face the full military might of the United States. The objective was victory without fighting. Washington warned repeatedly that every Communist-led revolution or aggression would be met with superior force until all such efforts ceased. To sustain a worldwide system of containment and guarantee the balance of power in every sector of the globe, United States officials spoke freely of filling every power vacuum with American forces. Within the context of global defense it was equally clear why the United States required some form of victory in Vietnam, for a global commitment to the *status quo* required either global wars or the maintenance of a credibility which might eliminate the necessity for demonstrating everywhere the existence of the national will. As Dean Rusk warned in August 1967: ". . . no would-be aggressor should suppose that the absence of a defense treaty, congressional declaration, or United States military presence grants immunity to aggression." Again he said: "We bear worldwide responsibilities, not because we want them but because we must bear them if we wish our civilization to survive. We can be safe only to the extent that our total environment is safe." At the time of the *Pueblo* crisis in North Korea during January 1968, Nixon declared characteristically, "The Communist world has been jointly testing the proposition that the United States is overextended, overcommitted, and underprepared to act . . . what is being tested is not the quantity of America's power — but its credibility and its utility." The pattern of response was clear. After twenty years, containment no longer had any relationship to the original, limited policies of 1947 and 1948. In the sixties it was anchored to a treadmill

of fear in which universal enemies demanded a global response. Again as in the thirties United States policy was addicted to the maintenance of a worldwide *status quo*. But instead of being anchored to principles of peaceful change it was now anchored to the most powerful military force the world had ever seen.

Why global containment, as demonstrated in Vietnam, failed as national policy is clear enough. The power to destroy is not the power to control. The successful threat of retaliation demands the existence of national interests of sufficient magnitude to rationalize the destruction as well as the risk of escalation. Despite the rhetoric of world aggression United States officials could never have convinced either the North Vietnamese or the American people themselves that the this nation's security interests were universal. Through the logic of history and geography the United States had written into the record its vital concern for what occurs in Europe and in the Western Hemisphere. Where its interests were primary the United States faced no direct challenge to its policies of containment. No nation revealed any interest in suicide. But in Asia the world generally — the Asians particularly — refused to recognize a body of established American interests. Here United States concerns were secondary. This fact, added to the weakening effect of distance, invited repeated defiance of an entire spectrum of clearly-stated American preferences. The United States could not, whatever its threats of countering violence, dispose of revolution, political turmoil, subversion, guerrilla warfare, and all the other enemies of peaceful change and self-determination which existed in Asia. For in the defense of any commitment there must be a clear relationship between the price of destruction and the gain to national security. In the turbulent Afro-Asian world that relationship remained agonizingly elusive.

VII

What containment lacked from its initial formulation was a set of clearly-defined goals achievable within the context of the limitations of power and the irrationality of war. The pursuit of liberty everywhere and at any price was not a rational policy for any nation. Those vital interests which a country defends are limited. Thus the rhetorical reference to global dangers which identify everything that happens with a nation's security must, in the absence of genuine policy, mislead friend and foe alike. If universal remedies for a troubled planet were non-existent, leadership might better have deflated its goals and promises and returned the expectations of the century to achieveable dimensions.

The perennial pursuit of elusive purposes, never backed by a clear concept of ends and means, plus the constant threat to fight anywhere and everywhere, had nothing to do with the responsibility of great power. Global liberation which challenges the morality, even the legitimacy, of countless governments around the world must exist as meaningless rhetoric or become productive of everlasting tension and war. Whatever the successes of containment they resulted from the refusal of the United States and its allies to pursue the revisionist objectives which they had attached to an essentially defensive policy. What the perpetuation of the gulf between purpose and policy actually achieved was not clear.

Nothing would demonstrate so effectively the limited choices confronting the West as the outbreak of conventional war which involved the forces of the United States and the USSR. For military conflicts in the sixties could be limited only by an unequivocal declaration for the continuance of the *status quo* as the object of the involvement. But if a nation at war, fighting under the immediate threat of nuclear escalation, faced the simple alternative of announcing the limits of its intentions or inviting a thermo-nuclear attack, then it is not unreasonable to suggest that it regard negotiable in time of peace what it must regard negotiable in time of war except at the price of general destruction. Containment had achieved its initial purpose of bringing the full power of the United States to bear on world politics with almost unbelievable success. But how that great power could best be used to serve the needs of a divided humanity remained the unanswered, yet inescapable, challenge still confronting the people and the government of the United States.

Nationalism and the International Transfer of Accounting Skills

LEE J. SEIDLER*

In a discussion of how nationalistic activities interfere with the transfer of accounting skills between countries, it is appropriate to reiterate the desirability of such transfers.

The role of accounting in the efficient functioning of developed economies has been clearly explained. Accounting controls are a virtual necessity to the operation of the large economic enterprises which are a basic feature of the developed economies, capitalist or socialist. Financial accounting skills — performance measurement and the attestation function — are similarly necessary to the functioning of the capital markets in developing countries. The major reforms in financial reporting undertaken in countries such as France and Germany, in order to assist a broadening of their domestic capital markets, indicates a more acute perception of the latter function in recent years.

While accounting has long been accepted as a normal appurtenance of the already developed economy, its role in improving the state of the less developed countries has been less widely recognized. Economic development is dependent on the marshalling of greater amounts of capital for investment purposes. For various reasons — not necessarily good or bad — the major role in accumulating this investment capital in developing countries has been assumed by governments. More

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sophisticated tax systems, usually based on income, are required to produce the necessary revenues. Accounting skills play a key role in the functioning of such tax systems. Capital budgeting techniques provide the information for a more efficient allocation for these investment funds. Equitable systems for price control and the allocation of scarce foreign exchange resources require reasonable cost accounting. The growth of large industries requires more sophisticated accounting, data processing, and management information systems. As in the developed countries, new capital markets require auditing skills and income measurement abilities.

TRANSFER WHICH ACCOUNTING?

If it is accepted that acounting skills are relatively advanced in the developed countries and that the developing countries have need of such skills, it is not unreasonable to suggest an appropriate transfer of these skills. In the discussion which follows, it will become apparent that the accounting skills contemplated for transfer are those which might broadly be classified as "Anglo-American."

In the past, both the French civil-law oriented accounting model and the British accounting traditions were each spread to many countries, principally through the vehicle of colonialism, and particularly in the French case, through cultural affinity. As noted below, the strongest vehicle for the current international dissemination of accounting information is the multinational corporation and its associated activities. The vast majority of such enterprises have their most significant ties to the United States or the United Kingdom. The investors in these two countries, where the shares of these corporations are generally traded, have for many decades required audited financial statements, with the result that U.S.- and U.K.-based independent accountants have developed world-wide practices. The French-Continental school of accounting has not received any similar current encouragement. There may be some argument that the Anglo-American accounting tradition is not the best one for transfer to the developing countries, but for practical purposes, it is the one which is available.

TRANSFERRING ACCOUNTING SKILLS

Skills of a technical nature appear to cross international borders with relative ease.[1] Such skills are generally free from cultural or political

[1] Conrad Arensberg and Arthus Niehoff, *Introducing Social Change: A Manual for Americans Overseas* (Chicago: Aldine Publishing Company, 1964), p. 62.

labels, and hence they avoid the type of barriers which more commonly affect disciplines with a social orientation.

Accounting skills would appear, from a superficial examination, to have a similar nonpolitical, noncultural orientation, which would enable them also to pass from country to country free of nationalistic influences. Unfortunately, this is not the case. Traditionally, in the Anglo-American countries with their common-law heritage, it has been assumed that accounting should be developed by accountants, independent of legal direction or coercion. While this may have been true in earlier, less complex times, at present, in both the United States and the United Kingdom, the law, particularly through taxation and capital market regulation, exerts a very sharp influence over accounting techniques. In most of the countries outside of the Anglo-American sphere, legal prescription of accounting methodology and techniques has always been the rule. This fact is especially true in those countries which have derived their business and commercial systems from the French example. There, commercial laws invariably include extensive regulation of financial reporting and bookkeeping. In countries with this civil law approach to accounting, the introduction of new, improved, or changed accounting techniques requires revisions in the law, a significant barrier to change.

FISCAL ETHNOCENTRISM

Often more troublesome than legal problems is a form of nationalism which might be labeled "Fiscal Ethnocentrism." Although the power of the former colonialists to control directly the governmental structure of most of the developing countries has largely disappeared, suspicions of their ability and desire to continue to manipulate control are strong. There appears to be a distinct tendency, in certain instances, for the developing countries to reject ideas coming from the developed countries simply because of their historical origins.

Another aspect of this problem centers on the fundamental nature of accounting. Accounting measurements, while they present the appearance of exactitude, are of course conditioned by the circumstances under which they are made. At the same time, much of the use of accounting results is closely bound to the user's instinctive conditioning to the assumptions, biases, or other distortions which may be inherent in his particular accounting system. An Amerian financial analyst develops an instinctive ability to evaluate the "quality" of the reported earnings of an American corporation, but he lacks the perception to view the

statements of a French company with equal acuity. Similarly, while the cost accounting system of a manufacturer in a developing country may be antiquated or inaccurate by our standards, it is the one that he understands, and one with which he feels familiar. A new system, although more conceptually valid, may involve a painful relearning process.

Allied with these influences is the problem that accounting theories are based on certain assumptions about human behavior and managerial goals. For example, American managerial accounting techniques and concepts, such as responsibility accounting, are based on the assumption that attempts to increase both individual discretion and responsibility in large organizations will be acceptable to both management and employees. This is usually the case in the United States, where drives for achievement and advancement are strong. When these ideas are suggested in societies, such as those of many of the developing countries where the total of economic wealth is conceived to be static, the inherently competitive aspects of decentralization and responsibility accounting may be quite unattractive. In many societies life consists of gaining a viable position and consolidating it. Betterment or advancement requires that one risk the loss of a part or all of that which has been gained. Employees may not desire additional, or indeed any, responsibility at the price of possible failure. Correspondingly, in such countries paternalistic managers often feel that placing a responsibility on supervisors is in some sense an imposition on the employees given the responsibility.

Thus, in countries where these tendencies are strong, such as in the highly paternalistic business environment of the middle eastern and the Mediterranean countries, many of our concepts of managerial accounting may be both unacceptable and unworkable.

ACCOUNTING SKILLS ARE BADLY PACKAGED

Another barrier to the easy transfer of accounting skills stems from the unfortunate way in which these skills are packaged. Only a small portion of the skills is written. Indeed, it has been virtually an article of faith for some accountants that generally accepted accounting principles have not, or even cannot, be completely recorded. At present, only a small portion of the sum total of our accounting skills may be found in written form. A major part of the total education of an accountant is still received through direct oral communication with more experienced accountants or teachers. Certainly, this has been one of

the rationalizations for the retention of the experience requirement for the CPA certificate.

Thus, the transfer of accounting skills is highly dependent on personal contact between teacher and student. It is obvious that in the international dimension the requirement for face-to-face contact between those possessing skills and those desiring them constitutes a significant barrier.

Even to the extent that accounting skills can be found in written form, language problems and the difficulties of translation are major problems. Accounting terminology is difficult to translate, not only because many languages lack an accounting vocabulary, but more important, because accounting terminology is in many respects a shorthand for rather complex concepts. Thus, while one may literally translate words such as *asset* and *income* from one language to another, a workable translation requires a *definition* of the term and the assumptions under which it is used. In this connection, it is interesting to note that translations of accounting texts often appear to be somewhat longer than the original work. Translations must be made by a translator who is skilled in accounting — and in the accounting of the countries of both languages. Such translations are very time-consuming, and they usually require the allocation of large amounts of time of the all too few accounting professors in the developing countries. In Turkey, for example, the translation of Paton and Littleton took four years of one of the country's best accounting professor's time. By the time the job was completed, a revised edition in English was already available.

These barriers should not suggest that international transfers of accounting skills are impossible. There are, in fact, a number of successful examples. The active accounting professions in most of the former British colonies testify to the success of the international efforts of the British accounting profession. These transfers, of course, were accomplished largely in the absence of language problems. The wide acceptance of American accounting principles in Mexico is a case where the language barriers have largely been overcome, but unfortunately this latter type of transfer is all too rare. In many cases the barriers discussed above have been quite effective.

TRANSFER AGENTS

There are a number of different vehicles for accomplishing the international transfer of accounting skills. Exchanges of both students and

professors are effective on a limited scale, but such programs suffer from high cost and, particularly in the case of the students, from their high propensity to remain in the United States.

Some skill, of course, can be translated by books, particularly to English speaking countries. In other countries, such as Mexico where translation to the local language is relatively easily accomplished, books play an important role. For many years, the Spanish version of Finney and Miller, the well known American textbook, has been the largest selling accounting text in Mexico. In Japan, books received under U.S. programs after World War II appear to have had a significant influence over Japanese accounting. Aggressive book publishers in Mexico and Argentina have had a major role in spreading accounting skills throughout South America. In the case of the Mexican books, these skills appear to be largely American-oriented.

INTERNATIONAL ACCOUNTING FIRMS

Historically, however, the most effective vehicle for the international transfer of accounting skills has been the international accounting firms. The American accounting profession, for example, was started in great measure by representatives of British firms sent to this country. The titles of many American accounting firms include names such as Waterhouse, Peat, and Touche, all of whom were early presidents of British Institutes of Chartered Accountants.

Today, the international accounting firms remain probably the most effective vehicle for the transfer of Anglo-American accounting skills to other countries. Their principal influence is exerted when they hire, train, and utilize local nationals to practice the Anglo-American accounting skills. One finds relatively few Americans employed in the overseas offices of the firms, although there is a rather large number of British nationals. In general, and particularly in the case of South America, local nationals constitute the largest group of employees of these accounting firms. Local participation is not restricted to employee levels; there are a number of local partners in all the accounting firms.

The reasons for the predominant use of local talent in these offices probably stem more from practical realities and economic considerations than from altruism. The compensation expectations of Americans going overseas are typically so inflated that the cost of local talent, even considering substantial training expenditures, is invariably less than that of importing Americans. The expectations of British personnel tend to be considerably lower than that of Americans, and their willingness to

go overseas generally quite a bit greater, thus explaining their relatively larger numbers.

Regardless of the degree of idealism involved, the operations of the international accounting firms have made them the largest developers of local accounting manpower and hence local accounting skills. As in the United States, there is substantial fallout from the international accounting firms; that is, many employees leave to take jobs with local companies or to establish their own accounting practices, thus spreading the skills further through the economy.

Sometimes by design, and at other times because of economic considerations or local restrictionism, the international operations of the accounting firms take many forms, ranging from direct operation of foreign offices which are treated as components of the parent firm to simple representation agreements with local firms. The former type of arrangement produces much more effective integration and hence more intensive training of local personnel. In most such cases, a reasonable number of American personnel are present, thus increasing the exposure of the locals to American practice.

In the typical case where an international firm is merely represented by a local firm, the ties are less tight and the resulting acquaintance with American accounting more superficial. The local firm probably devotes most of its resources to servicing local clients, unrelated to the international firm. With only a limited interest in the profits of the local firm, the international firm will be less willing to invest significant resources to train the local staff. In terms of "enforcing" its own accounting standards, the international firm has little authority over its correspondent.

Thus, when an international firm is merely represented by a local firm, as contrasted to having its own office in the foreign country, the transfer of accounting skills flows at a substantially lower level. On the other hand, local accounting firms usually deal more extensively with purely local businesses. Thus, what skills are transferred to the local firm may be more likely to be spread to the local business community.

Slowly, but increasingly, the international offices of international firms have found a market for "American style" accounting services with local businesses. Some of this local practice development has been a result of the semicoercive efforts of international development organizations such as the World Bank and the Inter-American Development Bank, which typically require local loan applicants to provide American-style audited financial statements. In other cases, local clients have gradually perceived the value of the services. Regardless of the method, the

result is to further spread both financial and managerial accounting skills into the local economies.

Additional transfers of accounting skills and attitudes occur in those countries such as Venezuela, where one finds participation by the representatives of the international accounting firms in local professional accounting associations. In yet other countries, staff and partners of the international firms often teach at local universities.

NEW NATIONALISTIC RESTRICTIONS

With the continued international expansion of American corporations and the derivative demand for services from the international accounting firms, it might be expected that the mechanism described above would function increasingly well. Unfortunately, the international expansion of the Anglo-American–based international accounting firms appears to be generating a reaction in a number of countries. Recent years have seen the enactment or intensification of legislation or restrictions designed to limit the freedom of practice upon accountants in many countries, including Peru, Chile, Venezuela, and Mexico. Legislation which at best appears threatening has been or will be passed shortly in Greece and Japan.

Restrictions against the practice of accounting by foreigners are, of course, nothing new. More than two dozen countries have traditionally had some degree of such restriction, although in many cases the practice restrictions remained on the books unenforced or easily circumvented. In recent years, however, there appears to have been an increase in the number of countries having passed or proposed new restrictions on international accounting. The new restrictions vary in severity. Those of Chile contain a residence requirement and the necessity of an additional signature on the auditor's opinion by a member of the Chilean *Colegio.* Foreigners may now, however, receive the necessary title of *contador.* Peru requires majority ownership and staffing by locals. At the extreme, Mexico completely prohibits the practice of accounting within the country by foreigners.

It should not be assumed that such restrictive efforts are confined solely to the developing countries. One of the strongest efforts to restrict practice rights of foreign accountants is currently being undertaken by the *Nederlands Instituut van Registeraccountants* (NIVRA). New laws in Holland appear to restrict audits of companies to members of NIVRA. NIVRA members are, however, forbidden to be in partnership with accountants outside of Holland.

The motivation for the restrictions imposed on foreign accountants seems to vary considerably. In some of the developing countries, particularly, there appears to be a mixture of emotional nationalism combined with economic factors. In Peru, for example, one of the groups attempting to win an election in the Peruvian professional organization ran on a platform which called for nationalization of the profession and throwing off "the chains of imperialism." The imperialists were depicted, in election literature, as the major international accounting firms.

In some countries the international restrictions are at least partially the result of local quarrels. In Chile, for example, we find the usual rivalry between university-educated and practice-educated accountants, with both attempting to exclude the other from practice. If, as is anticipated, a degree from a Chilean university becomes a requirement for accounting practice, then most foreigners will be effectively precluded from practice. The Netherlands also provides an example of mixed emotions in restrictionism. There is obviously an element of economic restrictionism in NIVRA's actions; a few large and well developed Dutch accounting firms would prefer to exclude the competition of foreign firms. In addition, however, there appears to be a genuine belief on the part of the Dutch that a partner in an accounting firm should be able to take full responsibility for the actions of all his partners and, reason the Dutch, how can one do so if the partner is thousands of miles away in another country?

In many cases, practice restrictions can be avoided by engaging in a representation agreement with a local accounting firm. As noted above, such agreements provide a lesser degree of control by the international accounting firm, and often, less coordination and quality control. Obviously the restrictions against international accounting firms are not significantly different in nature from those which countries have often attempted to institute against other types of foreign businesses. The consequences of the restrictions are also similar; the local country gains — or regains — possession of the business, often at a cost in efficiency and benefits. In the case of professional practice the possibilities of exploitation or expropriation of the national wealth, such as exist with mineral resources, are virtually nil. Since in the vast majority of cases the foreign skills are far better than those offered by the local accountants, the restricting country appears to suffer in general in order to provide supposed benefits to the small segment of its population which practices accounting.

OTHER NATIONALISTS

One major country generally requires foreigners to become citizens or to declare their intent to become citizens in order for them to receive the local accounting certificate. That country also usually requires education in a local university as a prerequisite for obtaining certification. It rarely allows reciprocity to qualified accountants of other countries, regardless of the stature of their home profession, unless they have satisfied the local requirements.

The country described in these sentences is, of course, the United States. Unfortunately, on any reasonable scale of nationalism and national restrictions, the U.S. must rank high. At present, forty-six states require U.S. citizenship or intent to obtain U.S. citizenship as a prerequisite to becoming a CPA; only California, Kentucky, Indiana, and Washington do not have citizenship requirements. Foreign accountants are usually permitted to practice accounting under their own titles, but this freedom is, obviously, of dubious economic value. Recently, the American Institute of CPA's has instituted a class of International Associates under which foreigners, *if educated in the United States,* may achieve a membership status in the AICPA after passing the uniform exam. This option is of some benefit to foreign students in the United States, but it is quite obviously not the equivalent of allowing foreigners to practice as CPA's in the United States or to actually obtain the certificate.

Thus, the United States is a member in good standing of that group of countries that restricts international accounting practice. When the international accounting firms have attempted to obtain some relief from restrictionist practices in other countries, they have found that the locals were well acquainted with U.S. actions and have utilized them as a rationale for their own restrictions.

CONCLUSION

It is apparent that the international transfer of accounting skills is heavily affected by nationalism, originating both in the United States and foreign countries. To the extent that these efforts are found on the part of the developing nations they appear to provide little benefit to the local country but they may well do substantial harm. When found in developed countries, such as the Netherlands, it is doubtful that anyone other than the accountants involved is seriously affected.

It is when accounting nationalism is found in the United States, as it is, that it appears to do the most harm. Nationalism on our part hurts

American accountants, the accountants in the developing countries, and the developing countries themselves. To the extent that we display nationalistic tendencies ourselves, to provide a potent rationalization for nationalists in other countries who are endeavoring to enact restrictive legislation. As demonstrated above, this legislation is largely self-defeating from the standpoint of the developing economy, since it cuts off a vital flow of talent and managerial skills which these economies need so badly. A foreign student, who would study accounting in the United States and hope to return with the skills to his home country, is denied the right to take home the professional recognition of the CPA. Many foreign students are thus discouraged from studying accounting in the United States, and their countries are denied the benefit of the skills they might obtain.

It is therefore doubly encumbent upon the remaining forty-six jurisdictions in the United States to move as rapidly as possible to delete the anachronistic citizenship requirements for the CPA. The United States should no longer be a symbol of nationalism in international accounting.

Accounting Models as Bases of Managerial Decisions

ERICH E. KOSIOL*

When Galileo, the famous Italian scientist, completed his experiments and deduced from them the laws of gravity at the beginning of the Seventeenth Century, he achieved a revolutionary transition to empirically founded *quantitative model analysis.* The triumph of the natural sciences and the application of their results to technology and economics are also the avenue of development of model constructions. The rapid advances in microphysics are apparent in the changing concepts of atomic and nuclear models underlying the current experiments and deductions.

At the same time, we have learned that the procedures used for model analysis — even though modified and with greater difficulty — can also be applied to the social and economic sciences. As in natural sciences, the results will ultimately be decided by whether or not this method will be verified in the long run. No discipline should, however, reject *a priori* a certain method which has not yet been sufficiently tested and, thereby, preclude new possibilities of research.

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Business economics and accountancy, as the natural science, belong to the applied sciences which are based on the empirical facts of observable reality. These sciences, therefore, achieve their results with the aid of a dual methodology approach. First, they grasp reality through *empirical-inductive* research in order to discover contexts, dependences, regularities, and laws. On these empirically founded hypotheses, *abstract-deductive* investigations are then based, the results of which must, in turn, be tested for reality. Economic sciences need both types of research, which are complementary and which in harmony allow the full scientific penetration of the phenomena.

Model analysis of problems represents a special procedure of the deductive research approach. Beginning with empirical facts, such analysis draws logical conclusions from the given premises which provide insights and solutions to problems that may be applied again in reality.

What is the nature and meaning of model construction? To understand the complex reality, the scientific process of gaining knowledge needs *abstraction.* Insignificant particularities of the phenomena are omitted, therefore, and the attention is focused only on the characteristic attributes, properties, and relations that are essential for the object of investigation.

This mental simplification of reality enables us to penetrate rationally complicated empirical contexts. Ideal patterns are created which represent, so to speak, logical parables or images of the real objects.

Scientific abstraction begins with the formulations of notions. We speak of *models* only, however, when we have composite structures of thought simplifying by abstraction the unexpressible complexities of reality and its comprehensive total interdependence. Models separate limited and describable parts of contexts by giving prominence to relevant facts and their dependences. By this process of isolation, the complicated causal relations are reduced to a simplified pattern of thought. As long as we are unable to picture real events in the form of such a schematic representation, we cannot visualize them theoretically. In the economic sciences, the model replaces the real experiment of the natural sciences inasfar as it is based on empirical data.

Logicizing, on which all model construction is based, is achieved by *formalizing* the variety of material data. A model developed in this way comprehends, because of its formal structure obtained by abstraction, a wealth of actual events and processes. The extent of this formalization is, at the same time, a question of the degree of abstraction deter-

mining the distance of each model from reality. The smaller the degree of abstraction of a model, *i.e.,* the more concrete the substance of its statements, the more precisely and detailed does it describe the facts of pictured reality. Despite its close proximity to reality, however, a model by its very nature can never be fully identical with reality.

In order to be transmissible to others, models must be expressed in understandable *symbols* which can be both seen and heard. First, common expressions are used which have developed a special meaning for the purposes of verbal economy with some quite complex technical terms. Moreover, in order to formulate its ideas with reliable precision, science needs a precisely defined, highly differentiated terminology, which is no longer accessible, however, to every layman or even every expert without a special knowledge. In view of the rapid progress of research and of the growing specialization in sciences, it is no longer possible to avoid the use of highly developed scientific jargon even though this may be regrettable for many reasons.

Models that are symbolized by words are called *verbal models.* If quantitative data are given and a numerical treatment of problems is required, it becames necessary to replace the complicated lengthy symbols of the traditional language with logically defined short symbols and, thus, to adopt mathematical terminology. This makes possible the transposition of mathematical operations to the originally verbal models to facilitate or permit calculation processes.

Such mathematicized models are also called *calculus models.* As a rule, they operate with a certain calculus or algorithm in the form of functions and equations. Sometimes they use the symbolism of logic. *Accounting models* are a variety of these calculus models.

Recapitulating, we may say that the procedures of scientific model building, in the sense of logically presenting reality, represent a progressive process of formulization, symbolization, and calculization of the problems of reality. The highest level of formalization is reached in *mathematical models,* which permit the penetration of the contexts numerically and allow the prediction of different model constellations.

If we wish to grasp economic life adequately through model analysis, the relationship between the formal structure of the model and the real structure of the problem is of decisive importance. A model provides an equivalent image of the reality only when the formal structure of the model and the problem structure of the modeled reality are largely *isomorphic,* or at least *homomorphic, i.e.,* when the structure of the imagined and of the real sphere are sufficiently equal. The numerical

results of calculus models can only claim validity for reality when this partial isomorphism is empirically founded. Only an isomorphic reflection of the data in the mathematical calculus structure can give the calculated results real meaning. It is, therefore, indispensable to continually test the models as to their empirical applicability.

Models do not only serve the acquisition of scientific knowledge. They can also be helpful for human action. Insofar as models contain elements that can be influenced or formed, economic action of man enters into model investigations in such a way as to provide statements on the effects of possible activities. Thus, the intellectual understanding of real happening leads to active intervention in economic contexts.

In this way, the results of calculus models may be drawn upon as planning bases for managerial decisions. The considerations of managers are then directed by an analysis of the problem with the help of calculus models. Quantitative model analysis thus becomes a means of enterprise policy in that the voluntary acts of decisions become rationally founded resolutions.

Two important groups may be distinguished among the mathematical models. It is a matter of two possible ways to prepare the actual decisions by calculated results. In the first case, the model provides data which can only indirectly serve the decisions. In the second case, however, a direct solution for the possible alternatives is obtained.

Many accounting models are designed to determine a certain figure by calculation, such as the monthly result of a department, the direct costs of a product, the capital value, or internal of interest of a planned investment. The computational solutions of such models are used for decision-making by comparison with other values of the same kind, such as the costs and results of earlier periods or of other departments and enterprises. The ascertained value may also be measured with an adequate scale of comparison, as for example, the predetermined profit rate or standard costs. Another possibility is to apply the same model to several alternatives, *e.g.,* planned different investments, and to allow the decision to depend upon the size of the value computed, *e.g.,* the capital values or internal rates of interest.

This first group of models may be called *ascertainment models.* They may serve as an *indirect* basis for both "yes-no" decisions for decisions involving a real choice among several alternatives, or also as a starting point for measures of rationalization.

The mathematical models of the second group include in their calculation a certain decision situation with alternative possibilities. They

determine one or several figures from a given range of variation, which, according to given criteria, present a certain alternative, the so-called optimal solution.

We, therefore, speak of *decision models, alternative models,* or also *optimum models.* Such models are used, for example, to determine optimal lot size, optimal useful life of equipment, optimal output of a product mix, or an optimal investment. These models represent the modern type of accounting models.

The elements of all mathematical models consist of variable and constant magnitudes. The constant figures represent the prerequisites to be determined in advance and are invariably binding for the model approach in the individual case. If these constants are understood as changing parameters, they signify the manifold variations of all individual cases in concrete situations which are generally covered by the formalized model. We distinguish between *data* parameters, which cannot be influenced by the entrepreneur (as, for example, the bank discount rate and national income), and *reaction* parameters, which can only be indirectly influenced by the entrepreneur (sales, profits, and liquidity which can be influenced by price policy or advertising).

The *variables* are the amounts sought that form the heart of the problem. They are also called *action* parameters since the entrepreneur can directly influence them, as, for example, the consumption of goods, the quantity of goods produced, and the selling prices for products. In case of optimum models, the variables are the *alternatives* of decision being discussed.

To demonstrate the structure of optimum models, allow me to mention briefly some important elements. The economic goal underlying the decision is to be formulated by one or several so-called *objective functions.* Possible functions are: sales, production output, costs, disbursements, profit or loss, time of work or processing, distances, and also an expression for risk.

These objective functions are, then, to be subjected to certain *criteria of efficiency* which should permit the attainment of the desired goal. This may mean, *e.g.,* minimization of costs or time, maximization of sales or profit, attainment of satisfactory sales or profits, as fixed figures or within a certain scope, compensation of costs, and minimization of losses.

These primary conditions of optimization may be complemented by *constraints,* as, *e.g.,* limitations of capacity, input time, purchase, supply, storage, sale, shipping, or liquidity.

Accounting theory has, from its origin, been concerned with the rational analysis and the numerical penetration of business processes. Bookkeeping, financial statements, income determination, and cost accounting belong to the oldest models in accounting. They represent the first modest steps on the path of quantitative problem analysis, managerial and decisional accounting because they merely use the elementary arithmetical operations of adding, subtracting, multiplying, and dividing.

Even the important formula determining the total value of a firm requires only a primitive arithmetical operation, in that the profit is divided by the interest rate. With this capitalization of the future profit, the problem is simplified so greatly that the practical value of the model seems most questionable. For it means that, for the entire life of the firm, constant annual profits and interest rates are presupposed, and that the life is assumed as being unlimited.

It was only much later that procedures of differential calculus, especially maximization and minimization of functions, were used in accounting theory in conjunction with marginal analysis and marginal cost accounting. As in a process of extreme simplification, objective functions were first considered with one variable only. These procedures have been limited to the scientific sphere of research without much application to practice. Only the further development of marginal analysis to linear objective functions and linear constraints with several variables brought considerable progress after World War II.

All older mathematical models are marked by the fact that they are of a deterministic and static character.

We speak of *deterministic* models when — in contrast to reality — we assume the required parameters to be determined as fixed and unequivocal magnitudes. However, as they are always amounts related to the future, their size is uncertain. To match reality, the uncertainty of the prognosis must be considered by including probabilities and their polyvalent distribution.

A model is further called *static* when the changes of the parameters in the course of time remain unconsidered. Time may rise as a constant, *e.g.,* as work time or temporal use of capacities; it does not appear, however, among the variables. Several static models may be related, side by side, to different points or periods in time and then be compared with each other. Costs and financial comparisons rest on such a comparative static approach. If changes of situations, however, are to be pursued over the course of time and not by jumps, time itself must be included in the model as a variable. The assumptions underlying static models also stand in contradiction to reality.

This short reference to older models is intended to remind us that mathematical models as the highest level of formalization are not new in accounting theory. In business practice also they have always been a method for preparing decisions. The question is, therefore, what is the specific nature of recent developments which are expressed by the term *operations research.*

Operations research is a collective name for utterly heterogeneous subject matters. It is, I believe, neither a new science nor does it deal with uniform problems. The name does not reflect the common characteristics. The special case of the original application to military operations has been retained.

The common constituent fact underlying all single parts of recent development consists, in my view, in that *alternative calculus models* are applied to specific questions and decisions. We might, therefore, more precisely speak of mathematical model analysis or decision analysis. Operations research is a *methodology* which is all-comprehensive and applicable to all sciences. Therefore, it must be integrated within all sciences as a specific methodological approach of research.

It is, thus, in no way a revolutionary innovation, but a particularly strong impetus in the consistent development of analytical methods. What, then, is the peculiar character of this drive?

1. The increasing tendency to construct calculus models in the entire field of social sciences has led to the creation of a wealth of new models. In business economics the progressive construction of further models refers to actual situations of economic choice in enterprises which may be solved mathematically.

These efforts have broken with traditional simple accounting procedures and led to a preference of the application of complicated mathematical operations. Thus, problems can be solved which formerly could only be treated with inadequate methods. It is attempted, thereby, to lessen the degree of abstraction of the models and to bring them closer to reality.

2. The formal sciences of mathematics, statistics, and logic give more and more attention to the new problems and calculus methods. They elaborate new solutions for them, including numerical procedures of approximation. While the higher development of applied and pure mathematics was formerly almost entirely determined by the problems of natural sciences and received the main stimuli for its research goals from these disciplines, the impulses today come also from social sciences, especially from business economics.

3. The older models of a deterministic and static character are being extensively improved in a fourfold way:

(a) By systems of simultaneous equations, problems of assignment that had hitherto been considered unsolvable can be solved or brought close to a solution. The cost apportionment of departments and cost centers supplying services to each other simultaneously is an example.

The determination of transfer prices for cost centers, machinery performances, factors of production, and products, especially joint products, may also be noted here.

Further examples are product planning and the transportation problem. Traditional cost accounting determines the unit costs, or at least the direct costs of the different products. Their amounts do not allow conclusions regarding the products to be preferred and the quantities to be produced in order to maximize the profit. Neither is it the most economical solution to supply every customer from the plant with the lowest transportation cost. In the first place it is the interrelatedness of products and the capacity of machines, in the second the connection of plant potential and supply quantities that demands that such assignment problems be solved by including all alternatives simultaneously in the accounting model.

The latest developments even attempt to unite related partial problems, as, for example, the questions of financing and liquidity with the investment problem, and solve them simultaneously. Similarly, the determination of the optimal product mix may be simultaneously combined with the determination of optimal capacity of machinery.

(b) Recent efforts further tend to consider the uncertainty of future expectations in the models by including probabilities and frequency distributions, *e.g.*, frequency distributions of products, sales, stock turnover, rhythms of arrival and service time in processing stations, or movements in traffic.

In this way, it is increasingly possible to master the random phenomena, the risk and imperfection of information and prognosis in so-called stochastic models. In investment decisions, for example, the degree of certainty comes in as an additional condition to the efficiency degree.

(c) Furthermore, incorporating time itself as a variable in the model is attempted so that in so-called dynamic models it becomes increasingly possible to understand systems analysis, work time and distance phenomena, and adjustment processes.

(d) Finally, models of strategic games have been developed in order to be able to include in the considerations the reactions of competitors, customers, or suppliers, who also influence managerial decisions.
4. As a consequence of increased formalization it has become apparent that the same calculus model shows isomorphism with different problems of various disciplines and thus can be practically applied to them. This situation has led to the international cooperation of all sciences in the field of model analysis. There are, on the one side, the experts of empirical sciences, such as economists, accountants, market researchers, physicists, biologists, sociologists, and technicians. On the other side are the representatives of formal sciences, *i.e.*, mathematicians, statisticians, and logicians. They gather in research groups which together with experts from practice — entrepreneurs, managers, and executives — construct decision models and test their possibilities of application.
5. The practical mastering of the comprehensive mathematical operations resulting from the complicated models becomes possible only by the simultaneous development of the appropriate devices in the form of automatic storage and calculating appliances, particularly integrated data processing machines.

These are the most important points characterizing the rapid development of quantitative model analysis and its most outstanding and distinctive marks. They reveal that it is urgent and inevitable to integrate the modern mathematical methods within the traditional theory of accounting. They belong with plan accounting, budgeting, decisional or managerial accounting. In my opinion, it seems to be the obvious way for a necessary development. This step is only the continuation of an earlier beginning. Accountancy must not be understood as a theory of accounts and bookkeeping in the literal sense. Accounts have been only the first simple means of recording and computing economic amounts. This starting point must be developed consequently on a mathematically higher level. Accounting theory comprehends all techniques, methods, and procedures which are appropriate to picture business facts, events, and actions in amounts and to use them as information for managerial purposes, decisions, and measures. In short: Accounting theory is a *computational theory* of business economics with all of its parts and fields.

Nevertheless, I think it is necessary at the same time, to note the prerequisites and to underline the limits of model analysis and its application in practice.

1. Every model has a *fixed frame* that cannot be exceeded and which is given by the constancy of the parameters and formulated by restrictive equations or inequations.

The ascertained solutions are, therefore, bound to these limitations. As soon as the constancy of the parameters and the assumed restrictions do not correspond to reality, the solutions of the model lose their real validity.

In many objective functions and conditional equations, *e.g.,* constant acquisition costs and cost rates, selling prices are presupposed although cost and price changes actually occur in the course of time. Mostly, it is further assumed that there are only fixed costs in addition to proportional costs so that constant contribution margins per product result. Degressive and progressive costs are not considered.

2. Every model contains simplifications which must be disclosed and not overlooked. Such simplifications may lie, for example, in the deterministic or static character of the model which contradicts reality, in the unreal linearity of equations or in the chosen distribution law of probabilities.

The greater the formal simplification and the stronger the degree of abstraction of the model, and the smaller the number of variables and restrictions, the further from the variety of reality does the model move and do the results lose their informative capacity and applicability. Conversely, increased model complexity brings about increased mathematical complexity, which means that models thereby may lose their practical value too. As a rule, it is thus more advantageous to use trial and error or simulation methods, less refined procedures of approximation, and older models of marginal analysis. We recognize here a certain dilemma of models lying near or far from reality.

The different sectors of business enterprises are, therefore, more or less suited to the application of mathematical models. Technological problems which depend on quantitative efficiency expressed in time, distance, or physical units, may more easily be quantified and reduced to well-known technological laws. This is why the main fields of model analysis lie in manufacturing and transportation as well as in systems analysis, allocation, inventory, queuing and sequencing problems. Things are much more difficult, on the other hand, for problems relating to the market and requiring an efficiency scale in money value. In the purchasing and selling sectors and also for investment problems, predictions have such a high degree of uncertainty that mathematical models furnish very little empirical information.

3. The practical application of models presupposes a complete and reliable numerical determination of all parameters. This means that a certain extent of informative facts and their operational measurement and valuation are required. It also shows the increased importance of the traditional accounting procedures. Mathematical model analysis does not render cost accounting superfluous but rather more important than before as a basic calculation system for decision models.
4. The majority of models treats limited *partial problems,* such as they arise in divisions, departments, and plants. On the middle-management level they help to find optimal solutions for one particular sector, independent of problems of other areas. In view of a decentralization of decisions, they pursue goals of *suboptimization.* What is lacking is a coordination of the different partial problems and their suboptima, and their insertion into superordinated contexts and their total optimum.

Simultaneous handling of partial problems in a global model certainly represents progress, yet it is limited by the increasing mathematical complexity. The creation of a supermodel comprehending all decision problems of an enterprise is just as improbable as the world formula of Laplace.
5. Quite generally speaking, we have to note that the decision process, expressed in a model, marks the end of an extensive *planning* process.

In itself, it represents a selective act of logical deduction, based on previously fixed premises. The conclusions of the model possess — the deductions being correct — only *logical* truth, but no *empirical* validity as such. Only the premises give real meaning to the model solutions. They must, therefore, continually be tested against reality. Their verification increases the practical usefulness of the model. Their falsification deprives the model of its informative value.

The logical model decision is, thus, preceded by a wealth of planning considerations which essentially consist of pre-decisions of the manager.

This is mainly a matter of fixing the objectives, inclusive of restrictive conditions, choosing the criteria which express the desired optimization, as well as obtaining and processing the required informations, related to the present and the future, in order to determine the model parameters, the data and reaction parameters. All these actual matters are not solved by the model but presumed in it.
6. Above all, it should be emphasized here that every decision is directed to the future and, therefore, unthinkable without predictions. All information for a decision is future-related and must be prognosticated. This is true for all elements of a model, *i.e.,* objective functions,

constraints, and parameters. The required equations or inequations themselves and all their constants are based on predictions. The model is only a deductive context of logic gaining its result by the tautological transformation of premises. The solution is only valid as far as the underlying data are actually true in the future. This fact is true, too, with the old simple models and even with stochastic models. The distribution of probabilities, for example, has to be prognosticated for the future.

Models lose their practical value without reliable prognoses. Bad predictions destroy the precision and stringency of the rational choice reached by the model. Predictions, however, are absolutely uncertain; there is no way to attain certain information for the future. What can be achieved is only to state degrees of likelihood, credibility, reasonableness, or acceptability of prognoses.

7. When, finally, the computational procedure of the model has provided its theoretical solution, there remains the *factual decision of will* to be made. It is of an extra-logical nature and also takes into account extra-economic viewpoints and judgments regarding ends, means, procedures, and risks. Above all, data which escape quantification and can often be of essential importance for the decision must be considered. These influences become apparent namely when data are insufficient, when prognoses show deficiencies, and in basic decisions on managerial policy.

Despite this, quantitative model analysis has an eminent value for managerial decisions. It serves to transpose the decisions, at least in part, from the purely intuitive sphere to the rational level of discursive thinking and acting.

The merits of the mathematical symbols and conclusions lie in their conciseness, clarity, precision and logical stringency, and are of such advantage that the narrowness of the model premises must be accepted in view of the attainable calculability of the problems. Every decision model of this type has its economic value and practical validity even within these limitations.

We must be careful not to request more from a model as a mental aid than it can furnish. As in the case of a computer, you can only receive what you have first entered in the machine. This is not only true for recent mathematical models, but also for verbal models and the simple traditional accounting procedures which are equally subject to certain prerequisites. What matters is whether it is possible at all to grasp the problem's solution rationally without such a model, so that,

without sufficient material, we are even more compelled to decide on the basis of vague experience, subjective yardsticks, and pure intuition.

On the one hand, there is the danger of exaggerating the possibilities of mathematical models and to see in them the egg of Columbus, capable of solving all riddles. This would mean going beyond the limits of their critical and prudent application, and should, in all events, be avoided.

On the other hand, we must not overlook the enormous progress represented by quantification, preciseness, and progressive mathematical representation of economic activity. Numerical analysis is a means which alone is not sufficient, yet it is still essential for rationally founded considerations.

Therefore, it would be unwise for the manager to renounce this precious foundation of his decisions. What appears necessary, however, is a close cooperation between theory and practice in order to construct jointly the models corresponding to reality and to test their applicability. Only in this way can scientific management approximate reality. This cooperation is of the greatest importance because the majority of the theoretically developed models is still insufficiently corroborated through practical applications. The critical objections from the individuals in practice are all due to the fact that it has not yet been possible to establish a permanent congruence with scientific theory.

But, above all, it must be recognized that models are no substitutes for decisions. Managers remain responsible for the coordination of the considered partial aspects and their suboptima, and for closing the gaps in the prerequisites of model analysis, uncertain expectations and missing informations.

Let me close by expressing the conviction that the actual risk, the remainder which cannot be solved numerically, and the responsibility lying in the voluntary act of decision, cannot be taken from the shoulders of the manager.

Observations on Accounting in International Finance

E. WALDO MAURITZ*

The need for better financial statement communications has received an increasing amount of attention in recent years by financial analysts, the Securities and Exchange Commission, accountants, investors and numerous other persons or groups. This attention has been focused primarily on the annual reports of domestic companies in the few countries with large and active security exchange markets. Usually the problems of greatest and most immediate concern receive first attention. Although the development of financial statements and reporting standards that will satisfy all interested persons or groups within the United States, for example, may never be achieved, history reveals that progress will be made.

Because the volume of foreign investments has grown so rapidly following World War II, interest in financial statements and reporting practices of capital importing countries also has received increasing attention. It is in this theater of financial activity that the need for accounting to serve as a common language is seriously deficient. The basic accounting practices in recording transactions generally do not differ greatly between countries; however, several highly significant differences in accounting principles, auditing standards, legal requirements relating to tax accounting, reporting standards, etc., result in financial

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statements that do not provide a satisfactory method of communicating financial information.

ACCOUNTING AND THE INTERNATIONAL FINANCE CORPORATION

Quite understandably, business organizations with significant investments throughout the world require meaningful financial statements. This is particularly true at the International Finance Corporation (IFC) because of its organization and activities. A brief review of the origin and functions of IFC and the duties of its Accounting Adviser will indicate the scope of investment activity and the need for reliable financial data.

The International Finance Corporation was established in 1956 as an affiliate of the International Bank for Reconstruction and Development (World Bank). It operates for the purpose of assisting the economic growth of its developing member nations by encouraging the growth of private enterprise and the flow of domestic and foreign capital to businesses in these countries. IFC's activities complement the activities of the World Bank. Unlike the Bank, however, the Corporation makes loans to private borrowers without government guarantee, and it can provide capital in any form, including equity capital. IFC's three main assignments are to provide risk capital for productive private enterprises, in association with private investors and management; to encourage the development of local capital markets; and to stimulate the international flow of capital.

The Corporation invests in developing member countries where sufficient private capital is not available on reasonable terms. It does not provide more than a portion of the total finance required.

The bulk of IFC investments have been in manufacturing projects such as fertilizers and other chemicals, iron and steel, pulp and paper, textiles, food processing, machinery, and cement. IFC has also invested in a number of other fields including electricity supply, tourism, agriculture, mining, storage and warehousing, and the development of financial institutions. The Corporation is also active in promotion of development enterprises, including an investment in a pilot pulp, paper and lumber operation in one country and in another country an investment in a company formed to develop tourism, and a variety of other activities designed to help develop useful new businesses.

From the date of its inception to March 31, 1969, IFC made 173 investment commitments, totaling $343 million, to 130 privately-owned enterprises in 39 countries. Disbursements on commitments up to that

date amounted to $196.5 million. IFC seeks to revolve its funds by selling portions of its loan and equity commitments to other investors. The total amount of such sales aggregated somewhat over $112 million, equal to about a third of all commitments, up to March 31, 1969.

THE ACCOUNTING ADVISER

The duties and responsibilities of the Accounting Adviser are somewhat varied, depending upon particular circumstances which may arise. In general, a reasonably accurate description of the duties of the position would include the following:

1. Develop and maintain effective professional contacts with practicing independent accountants throughout the world. This responsibility entails visits to countries in which IFC has investments to meet with independent accountants in such locations. Meetings with certain officers of the companies financed by IFC are scheduled in connection with such visits.
2. Review the annual audit reports of independent accountants applicable to IFC investments and, when necessary, correspond with the accountants for clarification of audit report contents or other significant matters.
3. With other members of the Senior Staff of IFC, review periodically the appraisals of existing investments and the appraisals for new investments.
4. Consultation from time to time with investment officers of the investment departments on questions relating to selection of independent accountants, interpretation of accounting questions and reviewing certain provisions of Loan and Investment Agreements.

Other duties may arise from time to time in accordance with the needs of the Executive Vice-President. One interesting and somewhat unusual duty assignment is described in a subsequent portion of these comments.

It was recognized at an early date in the history of IFC that provision should be made for independent audits of companies in which IFC made investments. Much attention and thought were given to this matter, and ultimately some rather standard provisions were evolved for inclusion in the Loan and Investment Agreements. These provisions are substantially as follows:

1. To install and maintain accounting and cost control systems and maintain books of accounts and other records adequate to reflect truly

and fairly the financial position of the company and the results of its operations in conformity with generally accepted accounting principles consistently applied.

2. To submit interim (sometimes monthly, usually quarterly) unaudited financial statements.

3. To submit after the end of each fiscal year, within a specified time period, copies of complete financial statements for such fiscal year (which are in agreement with its books of accounts and prepared in accordance with generally accepted accounting principles consistently applied) together with an audit report thereon, all in a form satisfactory to IFC, and a copy of any communication sent by the auditors to the company, or to its management, in relation to its accounting system or accounts. The auditors shall be a firm of independent public accountants satisfactory to IFC. The company shall authorize the auditors to communicate directly with IFC at any time regarding the company's accounts and operations.

ACCOUNTING PUBLICATIONS

Soon after his association with IFC, Harry J. Williams, who served as Accounting Adviser from 1963 to 1967, recognized that there was a great need for some guidance to many of the independent accountants who were auditing companies in which IFC had investments, and also an equally important need for some uniformity in the types of financial statements and supplementary data necessary for financial analysis. With the assistance of certain members of the U.S. public accounting profession and some members of the investment departments, Mr. Williams developed three pamphlets pertaining to accounting, auditing, and financial reports. Although designed primarily to inform independent public accountants and their clients of the accounting, auditing and reporting requirements of IFC, the pamphlets have made a worthwhile contribution toward the improvement of public accounting practice in various parts of the world.

One pamphlet, entitled "Accounting and Financial Reporting," contains explanations of, and comments on, the following items: required financial statements, public accounting standards, the qualifications of independent public accountants, auditing standards and procedures, the auditors' report, and management letters.

The other pamphlets are both entitled "Illustrative Form of Audit Report," one applicable to development finance companies and the other to commercial and manufacturing companies. Both pamphlets

were designed to inform companies and their independent accountants of the basic and significant financial statements and schedules required, and to provide an example of the accountants' opinion, plus the necessary footnotes and supplementary data concerning balance sheet items and operations and an example of comments covering scope of audit.

The pamphlets clearly indicate that the contents have been prepared for general guidance, and numerous conditions may necessitate variations in financial statements, the accountants' report, and so on. It must be remembered that IFC is an international organization representing ninety-one member countries. Because of its international character and variations in accounting principles and practices from country to country, it was deemed inadvisable to attempt to prescribe specific accounting principles to be employed. Nevertheless, it was necessary to establish some "ground rules." Accordingly, the pamphlet on accounting and financial reporting states, "Sound or generally accepted accounting principles are those which (a) are commonly used in the borrower's country in the preparation of financial statements issued to lenders, public shareholders, or other interested parties, and (b) have substantial authoritative support in practice as well as in theory."

Greater uniformity in financial statement format and content and the supplementary information required by IFC appear to be the most frequently noted benefits resulting from the three pamphlets. Other significant, but somewhat more isolated improvements, include the preparation of consolidated financial statements, inspection of inventory quantities and confirmation of receivables by public accountants practicing in countries where professional standards impose no such requirements.

INTERNATIONAL AUDIT PRACTICES

All readers and users of financial statements use the yardsticks or benchmarks best known to them for analysis and interpretation. Therefore, U.S. accountants will use, in almost all instances, the principles and standards evolved in this country in judging audit reports from foreign countries. Undoubtedly the accountants in the United Kingdom would use as criteria the standards best known to them. After study and analysis of the problems arising from dissimilarity in accounting, auditing and reporting treatment of similar transactions between several countries, an understandable urge for international accounting standards and principles develops. This is a great hope, but that is the most it can ever be.

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In common with substantially all investors and lenders operating internationally, IFC needs full and adequate disclosure of all significant matters pertaining to the financial statements. This is particularly important relative to audit reports on companies operating in countries where there is no authoritative or recognized documentation of accounting principles. Often in such countries, accounting principles and practices are based upon income tax laws, and minimum disclosure in financial statements is the customary reporting procedure.

Revaluation of assets, currency devaluation, significant variations in depreciation provisions (usually permissible under tax or investment incentive laws) and the practice of charging bad debt allowances and other regularly occurring expenses directly to retained earnings pose accounting and reporting problems in several countries. Price-level adjusted financial statements and the absence of consolidated statements present special problems, particularly for the financial analysts in the IFC investment departments.

Generally, in meeting the audit and reporting requirements of IFC, the independent accountants have done well. In most instances, their annual reports are excellent; that some reports are inadequate is not surprising. When audit reports are deficient, or when clarification of report contents is necessary, such matters are brought to the attention of the independent accountants, either by letter or personal visit. In nearly all such cases, the client company also is advised of the report deficiencies. Generally, as a result of this procedure, greater compliance with the reporting needs of IFC is obtained, but it appears certain that, too frequently, financial statements from different countries do not communicate in a common accounting language.

Visits with independent accountants in various countries of the world and reviews of audit reports submitted by them are most enlightening and interesting. The problems of public practice in a foreign country can be identified and more readily understood by conferring with the accountants in the countries in which they operate. From such conferences it is possible to develop comparisons of professional development, educational standards, government regulation and similar matters. One is inevitably impressed by the overall benefits to professional development resulting from the establishment of foreign offices by several large accounting firms. One is also impressed by the efforts being made by public accountants, their professional organizations and, in some instances, by government officials to improve the profession in various countries.

INTERNATIONAL ASSISTANCE AND STANDARDS

Recently, IFC was requested by a member country to furnish assistance in strengthening and expanding its public accounting profession. It is significant to note that this request came from a highly placed government official whose principal responsibilities involve economic development. He became convinced, after a careful study of problems pertaining to capital market development and economic growth, that more and better independent auditing was an essential requirement. It was agreed that the IFC accounting adviser would assist the member country in a survey of the several problems and develop such recommendations as he deemed appropriate.

The study entailed meetings with practicing accountants, government officials, central bankers, taxation department administrators, accounting professors, and stock and security exchange officials. In addition, it was necessary to review the laws applicable to public accountants, corporations, income taxes, and regulation of securities.

Several of the more important problems identified during the study may be of general interest:

1. The accounting profession had not adopted auditing standards, and the accounting principles employed were those determined by each practitioner.
2. The area of tax practice was assigned exclusively, by law, to public accountants; yet, until this year, no college or university offered courses in taxation to accounting students. Moreover, no questions on taxation have been included in the examination of candidates for the CPA degree.
3. In the absence of professional auditing standards, the exchange commission had found it necessary to prepare and utilize detailed instructions to public accountants. These instructions can best be described as a combined audit check-list and internal control questionnaire.

Enthusiastic support for improvement of the profession was clearly demonstrated by all persons and groups interviewed. It also became most evident that it would require the combined efforts of the government, the business community, the educators, and the practicing accountants in order to make any significant progress within the time limits proposed by the government official who had requested IFC assistance.

Following the study and interviews, numerous recommendations and a program of action were submitted for consideration in March 1969. The necessary first steps toward implementation of the recommendations

have been taken, *i.e.,* the establishment of an executive committee to direct and execute the program. It is contemplated that the principal recommendation will be implemented in two years. In that period of time it is anticipated that the executive committee can either attain or initiate a sustained program for achievement of the following objectives:

1. The adoption of generally accepted auditing standards.
2. The development and adoption of a body of generally accepted accounting principles.
3. The development and adoption of a professional code of ethics and rules of professional conduct.
4. A review of audit reports filed with the exchange commission to evaluate the quality of such reports and to identify the significant deficiencies, if any, in such reports.
5. The development of a stronger and more unified professional accounting organization.
6. Revision of college and university accounting courses to include education in taxation.
7. Revision of the CPA examination to include questions or problems pertaining to income taxes.
8. Formulation of programs and procedures for selecting annually a limited number of accounting students for internships with accounting firms in the United States.
9. Development of professional development programs and facilities for education in taxation.
10. Revision of income tax laws, administration, and procedures.
11. Revision of laws applicable to the public accounting profession to the end that foreign firms could establish offices in the country and existing "conflict of interest" areas of authorized service would be eliminated.
12. Establishment of conditions whereby independently audited financial statements would be a normal requirement of bankers and other credit grantors.

It was recommended that the executive committee use a well-chosen task force to carry on its activities and also that an attempt be made to obtain the assistance of a well-qualified foreign adviser. The task force is being recruited and efforts to find an adviser are still in process. Obviously, it is too early at this time to predict the results of this program; it is ambitious and challenging. More significant, however, is the fact that a government official recognized the need for a high level of

professional public accounting competence and performance as a part of economic development.

The foregoing account of commendable efforts by government, working with its independent public accountants to attain substantial improvement of the CPA profession, directs attention to the urgent need for more enlightened and positive action by government officials in developing countries in order to establish sound accounting standards and practices.

Investors and potential investors should be afforded as much protection as possible from misrepresentation or fraud. Providing such protection is a necessary and appropriate function of government. If government officials do little, or nothing, to assist in the encouragement and development of sound accounting practices and reliable financial reporting, it is most unlikely that any significant capital market will emerge. Both domestic and foreign investors will be wary and discouraged. An overhaul of the basic company or corporation law is, in many cases, a prelude to the introduction of sound accounting practices. Unfortunately, the long overdue revision of such laws, in some instances, has been thwarted by pressures from vested interests, representing a small proportion of the public. And it is unrealistic to expect that significant changes in accounting and reporting practices will be made soon in numerous countries.

The failure of accounting to communicate compatible information from one country to another has been well stated by T. L. Wilkinson in a recent issue of the *Columbia Journal of World Business*.[1] Mr. Wilkinson emphasizes the need for greater harmonization of accounting principles "without compromising the high standards existing in the many developed areas and without attempting to select the practices of any area and superimpose them on the world." It is almost unnecessary to observe that this is a laudable, and perhaps an unattainable, objective. No one is more aware of this than Mr. Wilkinson. He does, however, propose some excellent suggestions for initiating improvement in communications and these suggestions should be extensively circulated throughout the less-developed countries of the world.

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[1] T. L. Wilkinson, "International Accounting: Harmony or Disharmony," *Columbia Journal of World Business*, Vol. IV, No. 2.

Accounting Related to Export Credits Insurance and Finance

HUGH T. AITKEN*

The use of credit was never so institutionalized, so much a part of the national experience, as it is today. Everybody understands it to some extent, or at least appreciates its effects. On an international scale, the use of credit differs from the general experience only insofar as it involves a multiplication of the risks of nonpayment. In most cases it is difficult for an exporter to know his foreign buyers well; he may find it difficult to be conversant with trading conditions in the buyer's country, or to be fully aware of all the factors which have a bearing on the economic outlook of the country. Furthermore, in international lending, not only the credit-worthiness of the borrower must be considered, but account must be taken of the fact that the borrower — and the lender too, to a degree — is subject to political action over which he has no control and which may interfere with his ability to fulfill the terms of his contract.

Neverthless it is the consensus that credit is economically beneficial to our way of life — at least, a carefully planned use of credit is. It is undoubtedly good for business. Credit permits buyers to get goods for use before they have cash to pay for them, and as long as the value

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obtained from the use of those goods during the credit period is greater than the credit costs, credit buying and selling makes sense.

Export credit is one of the established facts of international commercial life. The concept and the fact have been adopted by the major trading nations of the world and it continues to gain ground as more and more countries feel the pressure to promote their export trade as a means of promoting domestic prosperity. Governments have felt impelled to encourage their exporters to expand their sales, not only in traditional markets, but in new areas as well.

MODERN CREDIT CONDITIONS

In a business transaction, one of the first and primary considerations in the mind of the seller is the question of how and when he will be paid. Except in the case of receiving payment in advance of shipments — a rare phenomenon — every export transaction involves some element of risk of nonpayment or of protracted default. Even in the case of cash against documents, where the seller retains title to the goods until payment has been made, a loss can occur: There will be a freight bill should the buyer fail to accept the goods, and if the exporter cannot locate another buyer in that market, there will be another freight bill, and possibly storage charges. If the buyer *does* pay and obtains title to the goods, the country may not be able to effect payment because of the sudden erection of an exchange barrier.

The modern trend is to grant the buyer title to the goods on the strength of his promise to pay at a future stipulated date. This places an extra burden on the exporter: Not only must he ask himself how he can be sure he will be paid, but the degree of this assurance will help determine the availability of financing to back his export production.

In effect, when an exporter supplies goods on credit terms, he is financing his buyer. But he must still maintain his inventory and meet his obligations. With the tendency toward an increasing use of credit in international trade on the one hand, and the intensification of foreign competition on the other, governments must ensure that their exporters are backed by adequate and competitive financing facilities.

THE ROLE OF EXPORT CREDIT INSURANCE

Export credit insurers and financiers have become the focal point of such government interest. All the major trading nations of the world provide an insurance facility and some provide a financing facility for the use of their exporters. Furthermore, the facilities offered are

roughly comparable. Most credit insurers belong to an international agency called the "Union d'Assureurs des Credits Internationaux" (the Berne Union) which was established to provide a sort of clearinghouse for international experience in the operation of export credits insurance. The purpose of the Berne Union is to keep a watchful eye on developments in the international credit field, and to provide a forum for the free exchange of information among its members. Because of the Union, each member is aware of what other members are doing.

While export credits insurers encourage the use of credit as a means of competition, they do not intend it as a weapon of competition. They merely insure that if firms can compete internationally in terms of price, quality, and service, they will have at their disposal competitive credit facilities as well.

Export credits insurance is not intended to subsidize exporters. Policyholders are expected to compete internationally as though they were not insured — that is, they must insure that their export sales are handled with due regard to their buyers ability to pay, on time, according to contract. Export credits insurance covers only risks over which neither the seller nor the buyer has any control.

In Canada, this protection is provided through the Export Credits Insurance Corporation (ECIC), which was established by the Canadian government in 1945. It is a corporate body having the capacity to contract, to sue, and be sued. It is a nonprofit organization, and it aims to provide insurance on a cost basis, at no expense to the Canadian taxpayer. ECIC charges premiums at rates which will, it is hoped, over a period of years enable it just to meet its operating expenses and net claims. In fact, having now operated for almost a quarter of a century, the excess of operating income over expenses and Policyholders' claims amounts to a mere 0.3 percent of the $1,718 million of exports insured.

ECIC operates in two complementary fields, export credits insurance and long term export financing. Insurance is made available to cover export sales of consumer and capital goods and construction engineering and technical services. Financing may be provided when funds are not available from the normal sources.

These facilities are tools designed to make certain that Canadian exporters do not lose business because their foreign competitors have better credit facilities than they have. ECIC is equipped to help any Canadian exporter exporting goods from Canada, whether they are consumer goods customarily sold on short term credit or capital goods

sold on medium or long term credit, whether an exporter's business involves sales of only a few hundred dollars, or runs into millions.

In the insurance field, a policyholder is protected against nonpayment by a foreign buyer for any reason beyond the control of either the exporter or the buyer. Coverage includes credit risks such as insolvency of the buyer, or default by the buyer, and political risks such as exchange transfer difficulties (the greatest menace), cancellation of import or export licences, war between Canada and the buyer's country, and revolution or insurrection in the buyer's country.

TYPES OF CREDIT INSURANCE

Insurance policies are issued in one of two categories: consumer goods policies which offer blanket coverage for all an exporter's short-term credit sales for a twelve month period, and capital goods policies which are issued to cover specific sales of capital goods sold on medium-term credit, generally to a maximum of five years. Policies covering construction, engineering or other technical services may be issued as either a blanket or a specific policy, depending upon the needs of the exporter.

The blanket policy is designed to facilitate exports with the least interference possible in the day-to-day operations of an exporter's business. In applying for a policy, an exporter lists the countries to which he expects to ship during the following twelve months, the terms he uses, and the volume of business he expects to do. Based on the exporter's markets, terms, the spread of risk offered and other considerations, a premium is charged on the invoice value of his exports to each market for sales of consumer-type goods sold on credit terms of 30, 60, 90 or to a total 180 days. Under this type of policy — which constitutes by far the greatest volume of ECIC's business — the policyholder acts without continual reference to ECIC, bearing in mind that if he were to sustain a loss, he would have to justify the extension of the credit to the buyer before he could have a proper claim.

Medium-term insurance — that is, insurance covering capital goods sold on credit terms which may extend up to five years after delivery — is an important part of ECIC's operation, though the volume covered is relatively much smaller than that of short term credit.

Each sale of capital goods is covered by a specific policy tailored to the individual needs of the exporter. Such sales involve the export of capital type goods such as locomotives, production machinery, aircraft and the like.

The risks covered under all policies are the same.

Policies are issued on a co-insurance basis: ECIC normally pays up to 90 percent of the amount of the loss under the terms and conditions of the exporter's policy, the exporter bearing 10 percent of the risk. In this way the exporter retains an interest in recovery of the account. Sharing the risk also guards against the indiscriminate or reckless extension of credit.

Under blanket policies, ECIC sets a maximum amount of credit applicable to any buyer in any country covered. The exporter may extend credit up to this amount to any buyer provided he can justify this credit.

If the exporter wishes to extend credit to an amount greater than that allowed in a policy, he then applies to ECIC for a specific credit approval. He must supply financial information which would justify the granting of the required credit. Such credit information must also be provided when a medium term policy is to be issued.

FACTORS IN THE GRANTING OF CREDIT

In agreeing to insure an account receivable arising from an export transaction, the insurer in effect is granting credit. Accordingly, the insurer, acting as a credit man, must consider the normal criteria involved in granting credit, including the three C's of credit, "Character, Capacity, and Capital." Capital relates to the subject under discussion and, of course, refers to finances. The credit man (insurer) may have full information as to Character and Capacity but without details of Capital he is not in position to reach a logical or reasonable conclusion. It is only when he has detailed comparative financial statements, including Profit and Loss and reconciliation of Net Worth and Surplus accounts, that he is able to make a comprehensive analysis of the condition and trend of a buyer. This analysis, together with information as to Character and Capacity, plus, of course, payment experience, permits the credit man to reach a logical decision as to a buyer's creditworthiness.

In analyzing financial statements certain basic ratios are examined: Current Ratio, Inventory to Net Working Capital, Debt to Net Worth, Fixed Assets to Net Worth, Funded Debt to Net Working Capital, Sales to Inventory, Net Profit to Sales, Net Profit to Net Working Capital and to Net Worth, and Average Collection Period. All of these relationships are readily ascertainable from detailed figures, and trends are arrived at from comparatives.

By itself a balance sheet does not show too much — it is a still picture. With complete financial statements for several consecutive periods, however, one can form a very good opinion of where a business is going. This, of course, is what the credit man wants to know since the credit he is insuring is payable at a future date.

ECIC does not act as a supplier of credit information, although over the years it has collected information on thousands of buyers in foreign countries, and this information is brought up to date from a different source every six months. If information received on a particular buyer is detrimental, then all policyholders who are known to be shipping to him are immediately notified by ECIC.

Of course, in the granting of specific credit limits on either a continuing basis or for one-shot transactions under blanket type policies, or in the case of all medium term policies, ECIC must make judgments on the credit-worthiness of a buyer. It is normally the responsibility of the exporter to supply the substantiating credit information, but the Corporation will assist in any way it can. In this connection ECIC may call upon the services of the Canadian Trade Commissioner Posts around the world.

The constant operation of this system of credit checks has paid off in the past and has kept ECIC's losses due to credit risks to a minimum. Thus an ECIC Policy has a well-earned reputation of blue-chip security.

When an insured exporter presents himself to his banker with 90 percent of his foreign accounts receivable guaranteed against loss due to death, business depression, calamities, or political actions, his banker will look with considerably more favor on his request for financing than he would if the collateral were unsecured book debts.

As an aid in financing, ECIC will agree to pay to a bank the proceeds of any loss under a policy. An exporter may assign an individual bill to his banker or he may make a blanket assignment of all his foreign accounts receivable.

ECIC may also provide unconditional guarantees to banks where insured Canadian exporters have sold capital equipment on medium term credit. An insurance policy provides cover to the exporter during the production period of the goods, but once the buyer has accepted the goods, the unconditional guarantee goes into effect, enabling the bank to finance the exporter on a nonrecourse basis.

Long-term export financing — ECIC's second field of operation — may be provided in support of Canadian capital goods exports where supplier financing from commercial sources is not available. There is an undoubted need, particularly in the developing countries, for sources of

financing extending beyond five years (which is considered internationally as the maximum period suitable for supplier credits), and most of the industrial nations make some provision for such assistance to their exporters.

CREDIT AND DEVELOPING COUNTRIES

Financing is by implication, although not by definition, aimed most directly at the developing countries — the future international markets of the world. It is a useful form of capital assistance for economic development in the recipient country, but it should not be confused with grant aid. It is intended for commercially viable capital goods projects and may include related engineering and technical services which, in developing countries, will assist in their industrialization. The project financed must be feasible, *i.e.,* technically and economically sound, and should normally be of the revenue-producing type which will eventually pay for itself.

In this connection it should be noted that in the countries receiving direct financing of the nongrant aid type from Canada, interest rates are high — perhaps fourteen or fifteen percent. Add to this the fact that the rate of return on the type of projects ECIC finances can be high — up to thirty percent — and it is clear that most developing countries can afford to pay six or seven or eight percent interest.

While feasibility is one of the criteria ECIC considers when processing an application for long-term export financing, it cannot be considered in isolation. There are countless capital goods projects which are clearly sound investments from the point of view of financial returns, and Canadian firms could supply them. ECIC is obliged, however, to consider not only the impact of a financed project on the internal economy of the recipient country, but also the effect it will have on the balance of payments situation of the country. When this type of financing is required, there is usually a formal development plan in the recipient country and ECIC provides financing only for those projects considered important by the government of that country — whether or not that buyer is a government agency or a private corporation.

Under the financing operation, because of the size of most financed transactions plus the extended period of time involved, ECIC seeks and usually obtains a predicted cash flow and profitability chart as well as projected financial statements covering a period of years. In addition, since it is not possible to take such predictions as fact, a third-party guarantee, or, if the buyer is a government or semi-governmental organi-

zation, a guarantee from the central bank or the Minister of Finance in the buyer's country, is required.

Canada has provided financing — to December 31, 1968 — for fifty-one projects in nineteen countries. The projects range through locomotive and railway equipment, electrification and telecommunication programs, pulp and paper mills, to nuclear power plants. Of the financing ($408 million to date), approximately one-third has gone to Latin American countries and one-third to India and Pakistan, with the remainder scattered in the Middle and Far East, Europe, and the Caribbean areas.

Under the financing operation ECIC works closely with various international bodies such as the IBRD and the IDB. In certain cases Canada has made commitments to contribute to consortia programs to aid economic development of particular countries. When such is the case, Canada allocates financing, usually in yearly pledges to the country, which proposes projects to be financed for ECIC's approval. This type of financing allows the recipient government to formulate long-range plans for industrial and economic development, and establish a pattern of priorities with some certainty that its planning will bear fruit.

ECIC has the authority also to make loans to foreign industrial development banks, but only recently has it begun working out an actual agreement. This type of financing may be referred to as a "two-step" loan. That is, ECIC lends the money to the foreign development bank, and the money is then made available for relending to buyers in the country concerned. The advantage of this type of loan — which, as is the case with all ECIC loans, is tied to purchases from Canada — is that capital equipment needed by the country but not normally qualifying for long-term export financing may be bought. The buyer in the foreign country will negotiate his own financing with his industrial development bank on credit terms close to the norm. The bank's repayment terms to ECIC will be more appropriate to the foreign exchange position of the country.

In closing, mention should be made of a bill before the Canadian parliament to create an Export Development Corporation which will assume the present functions of ECIC, but will undertake to provide additional services related to the insuring, guaranteeing, and financing of exports. Perhaps chief among the new functions, it is proposed that the Export Development Corporation will have the authority to insure certain foreign investment risks in developing countries. In that connection, accuracy of information backed by proper statements of account is a *sine qua non.*

International Dimensions of Accounting

LEONARD M. SAVOIE*

Accounting is soon to become interplanetary, or at least intersatellite, in dimensions. For wherever man goes today, accounting is a necessary traveling companion. And when man lands on the moon, there is certain to be a public accounting of the vast resources expended in getting him there. The accounting for this awesome feat may follow the principles of one country or another, for we are far from having a uniform set of principles in use throughout our own planet. Accounting for the moon landing will follow, I hope, United States principles and the monetary unit will be the U.S. dollar. But getting back down to earth, I wish to note some current progress in measuring the international dimensions of accounting and seeking to achieve greater cooperation and understanding among accountants in all nations.

PLANNING AN INTERNATIONAL CONGRESS

The International Working Party met this spring in Pebble Beach, California, to consider establishing an international secretariat, review plans for the Tenth International Congress of Accountants, and consider other means of improving international accounting relations and standards.

The International Working Party was established for just these purposes as a result of a resolution adopted by the heads of agreement at the Ninth International Congress of Accountants in Paris in September

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1967. The resolution was introduced by Clifford Heimbucher, of the United States, to effect a compromise between views of some delegations that favored immediate establishment of an international secretariat and and others that opposed this action.

Professional bodies which organized the Sixth, Seventh, Eighth, and Ninth International Congresses, together with the body chosen to organize the tenth such Congress were invited to form this Working Party. Consequently, representatives of professional bodies from the United Kingdom, Netherlands, United States, France, and Australia constituted the initial Working Party. The first meeting was held in Paris in April 1968. The second meeting was the one mentioned in California in May 1969.

At that meeting, plans were reviewed for the Tenth International Congress of Accountants which is scheduled in Sydney, Australia, in October 1972. We were very pleased with the progress made by the Australians in organizing this Congress. Ronald Irish, President of the Congress, and Clifford Anderson, Chairman of the Congress committee, have done an outstanding job. And the two professional bodies which are soon to be merged — the Institute of Chartered Accountants of Australia and the Australian Society of Accountants — are already cooperating effectively.

CONGRESS PROGRAM AND EMPHASIS

I am personally enthusiastic about the technical, as well as social, plans for the Congress. Six major technical papers will be prepared, all relating to accounting, auditing, and financial reporting. Topics include accounting principles used in determination of income; bases of accounting other than historical cost, such as replacement cost, realizable value, discounted present value, and price level adjustments to historical costs; consolidated financial statements; the auditor's report; information needed by investors and others; and information needed by management.

This promises to be a stimulating, enjoyable, as well as successful meeting. From a publicity standpoint, we have much to learn from the Australians, as Mr. Irish has already contacted major United States television companies to arrange for U.S. network television interviews at an appropriate time to publicize the 1972 Congress.

The terms of reference of the International Working Party call for a report within two years to all interested accounting bodies on the international congresses, their objectives, and means of obtaining these objectives. An interim report, which is being drafted by the Australians, will soon be submitted to other members of the Working Party.

Very likely the report will note the objectives of periodical international congresses, which are to:

1. enable members of the accounting profession to meet one another in an environment that facilitates discussion and the interchange of ideas;
2. direct attention to and inform accountants of developments in selected fields of accounting thought and practice; and
3. reach some broad conclusions on desirable common aims which might be pursued by all member-bodies if it is their wish and within their power to do so.

It will also be reported that an interval of five years between congresses is considered satisfactory and so is the four-day duration. No restriction on attendance is suggested to any host country.

The interim report will state that representatives from two additional countries will join the International Working Party. Under the terms of reference which established the Working Party, the right was granted to co-opt up to three other countries. Representatives from India and Mexico are being asked to attend the next meeting of the Working Party. That meeting has tentatively been set for London in October 1970 or April 1971.

AN INTERNATIONAL SECRETARIAT?

In considering the more difficult and controversial subject of establishing an international secretariat, the Working Party prepared a memorandum outlining the principles which are inherent in establishing a sound accountancy profession and examining the nature and extent of assistance already being extended to developing countries. As a result of these considerations and the substantial cost which would be involved, the Working Party sees some rather formidable difficulties in establishing an international secretariat at this time. The interim report will note alternate means of consolidating international relations, improving lines of communication, promoting the harmonization of accounting and auditing standards, and assisting the formation of new accounting bodies.

PRESENT AND FUTURE DEVELOPMENTS

The review of the development of an international accounting profession revealed that the development of uniform standards and practices throughout the world is a matter of evolution, first requiring willing movements within individual countries rather than enforced movements from an outside source. The interim report will suggest a

continuation of the Working Party to encourage international cooperation. After further refinement, the statement on establishing a sound accounting profession will be published for the guidance of those interested. The statement will contain criteria necessary for a professional organization. All participating bodies will be encouraged to set forth in writing the extent to which they have been able to meet these criteria where they are applicable.

Further recommendations will be made for every participating body to send direct to each other participating body that requests it a list of its technical publications, particulars of its examination syllabus and the extent to which examination questions and answers are available, its annual report, and its list of members.

Each participating body will be requested to allow any other participating body to publish its technical and other documentation and translations thereof, without charge, provided there is prior approval, proper attribution and the body using these materials makes no profit from doing so.

The report to be issued by the Working Party this summer is an interim report. A comprehensive report is to be submitted for consideration at the Tenth International Congress in 1972. In the meantime, the Working Party will request suggestions from participating bodies throughout the world. This information is to be supplied by December 31, 1969, so that it may be used in preparing the comprehensive report.

The Working Party noted many of the current efforts to improve accounting communications and standards internationally. Regional accounting conferences are having beneficial effects. These include the Inter-American Accounting Conference, the Conference of Asian and Pacific Accountants, and the Union Europeene des Experts Comptables.

Another significant effort is the Center for International Education and Research in Accounting at the University of Illinois. The Center, the journal it sponsors, and the International Seminar on Accounting it conducts each year are important contributions toward the dissemination of accounting knowledge. I am looking for this Center to continue growing in prominence and prestige and to engage actively in and support research efforts directed toward harmonization of international accounting standards.

The Latin American Newsletter, started by Stephen Zeff at Tulane University, is a highly commendable effort for communicating international accounting developments.

Another notable program is that of the ICAC in bringing accounting and auditing education to developing countries in Latin America.

THE ACCOUNTANTS INTERNATIONAL STUDY GROUP

Still another cooperative international effort is the Accountants International Study Group. The Group was established in 1966 jointly by the American Institute of Certified Public Accountants, the Canadian Institute of Chartered Accountants, the Institute of Chartered Accountants of Scotland, and the Institute of Chartered Accountants in Ireland. Its terms of reference are "to institute comparative studies as to accounting thought in participating countries, to make reports from time to time, which, subject to the prior approval of the sponsoring Institutes, would be issued to members of those Institutes."

The Study Group's objectives are to provide an impetus for greater cooperation in facing mutual challenges and stimulus for the improvement of practice standards among the memberships of the participating Institutes and, perhaps, internationally. The first study was published in January 1968, entitled *Accounting and Auditing Approaches to Inventories in Three Nations.* It dealt with a wide range of problems in auditing inventories, including physical inspection and valuation.

This first study had a beneficial effect on practice. Before 1968 was over the English Institute issued a *Statement on Auditing — Attendance at Stocktaking,* which implements recommendations of Study No. 1. The English statement takes a strong position on the necessity for auditors to physically inspect inventories, thus bringing English practice into line with North American standards.

Study No. 2, *The Independent Auditor's Reporting Standards in Three Nations,* was prepared by the U.S. delegation with the assistance of material made available by Canada and the United Kingdom. It is being printed in England and our supply of completed booklets is expected momentarily.

Views expressed in the study are those of members of the Study Group and not necessarily those of the participating bodies. This is important to note, for Study No. 2 may shock some of our Institute members with its recommendation for a short-short form opinion. It is sort of a mini-opinion, calling for no more than use of the words "in our opinion," identification of the financial statements being reported on, and a concise evaluation of the financial statements, such as that they are "fair and reasonable."

Our committee on auditing procedures is now considering an expanded short-form opinion, so Study No. 2 may give them some thought-provoking material. The study notes some other unequivocal conclusions of more than passing interest. It says that the auditor's appointment should be made or ratified by shareholders, that he should be per-

mitted or required to attend meetings of shareholders and should have the right to appear before shareholders if his replacement is proposed. The study urges the profession in all nations to inform the investing public of the extent and limitations of the auditor's responsibilities. It says that financial statements reported on should include as a minimum the balance sheet, statements of income and retained earnings and a statement of source and application of funds. The study recommends a disclaimer of opinion on unaudited statements and urges avoidance of negative assurances as far as possible.

This study is certain to create interest in the United States, and it may aid in changing practice.

The Accountants International Study Group meets next in July in Toronto to consider a study prepared by the Canadian delegation on "Reliance on Other Auditors." Other subjects selected for study are "The Problem of the Small Audit," "Reporting of Diverse Activities by Conglomerates," and "Accounting for Corporate Income Tax."

These developments are encouraging signs that real progress is being made toward international development of the accounting profession and harmonization of accounting principles.

Curricular Recognition of International Accounting—An Appraisal

EDWIN C. BOMELI*

THE PRESENT SITUATION

In discussing the topic of the "curricular recognition of international accounting," some of you may have wryly remarked that I could well dispose of the subject in two words — "very little" — and perhaps you hoped that I would do so and then be seated.

I can rather quickly dispose of the several manifestations of curricular recognition which are relatively obvious. An obvious manifestation of recognition is the number and character of courses which deal with the international aspects of accounting, and exclude in general nonaccounting and noninternational aspects. These I will enumerate shortly. Another manifestation is the coverage of accounting aspects in the courses included under the caption "international business." As we shall see later there seems to be a general lack of interest or lack of professional competence in including accounting problems in the interdisciplinary courses of the international business area. An examination of the course outlines of these offerings in the various universities which list courses cutting across the functional lines offers numerous examples of the exclusion of accounting considerations. Still another manifestation is the richness and diversity of inclusion of international aspects in other accounting courses. To verify the extent of international refer-

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ences in traditional accounting courses would involve the analysis of the course outlines of so many courses offered by so many colleges and universities as to be discouraging to contemplate. My impression is that relatively little headway has really been made in including international considerations in presently established courses in accounting, although there are certainly exceptions.

Just how many courses are presently being offered which are described as "International Accounting?" Professors Mueller and Zimmerman represented accounting interests on a committee which produced the monograph *Internationalizing the Traditional Business Curriculum.*[1] They found that graduate courses are presently being offered in from four to ten universities, depending on definition, and that undergraduate courses are being taught at two schools. Professor Fantl is presently conducting a survey to identify such courses as to location and course content, and this will be published in the *Seton Hall International Accounting Education Newsletter.*[2] His data are not complete but returns indicate courses being offered by seventeen universities: Bowling Green State University, California State College at Los Angeles, the University of California at Los Angeles, Columbia University Law School, DePaul University, Georgia State College, the University of Illinois, Indiana University, Louisiana State University, the University of Miami, New York University, Northern Illinois University, the University of Pennsylvania, San Francisco State College, Seton Hall University, the University of Southern California, and the University of Washington. All of these are taught at the graduate level except at Indiana, where it is a senior-level undergraduate course, and Bowling Green and the University of Miami, where both graduates and undergraduates are enrolled.

The list *does* grow; yet such a "concentration" of courses certainly would not indicate market saturation at this point, and there is certainly a tendency for many of us to be preoccupied with the assertion that International Accounting is *so* a valid separate course in the discipline. I suppose this may be attributed to evangelistic zeal in a fertile field of unconverted heathen. Many of us in fact tend to take advantage of any public forum to labor that point, as, for example, in Mueller and Zimmerman's excellent survey of the state of international account-

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[1] Schuyler F. Otteson (ed.), *Internationalizing the Traditional Business Curriculum* (Bloomington, Indiana: Bureau of Business Research, 1968).

[2] The mailing address for this newsletter is: School of Business Administration, Seton Hall University, South Orange, New Jersey 07079.

ing which constitutes a chapter in *Internationalizing the Traditional Business Curriculum,* and in my recently published review of Professor Kolde's *International Business Enterprise.*[3]

In my opinion some headway is being made. There is a growing number of courses in the international accounting area; certainly *some* understanding of accounting is included in course offerings in International Business however it may be disguised. And there is a growing recognition of accounting problems associated with overseas subsidiaries in the traditional accounting courses — although problems in determining their extent discourage precise measurement.

NEW FACTORS

I would now like to explore this growing recognition of overseas accounting problems in traditional courses more fully in order to begin consideration of some less obvious manifestations of curricular recognition of international accounting. I think I can see some encouraging developments, which although not provable, still are convincing and significant to me. I suggest three of these: (1) I believe international *accounting* is supplanting what formerly was really international *bookkeeping;* (2) Although each discipline sees its functional area as being the one to be selected for special consideration in curricula devoted to interdisciplinary programs, and must still be explored separately by professional specialists; (3) I propose that the internationalization of accounting and other business considerations has contributed, to some extent at least, to the reexamination of the functional alignments within colleges of business. If true, these manifestations will have a significant impact upon the total instructional package we provide accounting students in the future.

THE TRANSITION FROM BOOKKEEPING TO ACCOUNTING

I see initially, as a manifestation less obvious than the present number of separate courses in international accounting, an increasing tendency of accounting programs to include consideration of what I would call international *accounting,* rather than international *bookkeeping,* in their curricula. Professor Paton last week at the Ohio Regional meeting of the American Accounting Association said that there is nothing wrong with the term "bookkeeping" and we should be proud to be called "bookkeepers." I suspect I would find a fair degree of unanimity in this

[3] *The Accounting Review* (April 1969), pp. 429–31.

group as to our great respect for Professor Paton and our great disagreement with him on this particular point.

Accountants have certainly in the past been problem-oriented (if not indeed bookkeeping-oriented) in undergraduate courses. We talk about reducing busy-work and adding assignments that will develop decision-making and communication skills, yet in actual practice many of us have believed in a considerable amount of pencil-pushing, which we glorify by calling "problem-solving."

Any examination of course syllabi or the more popular accounting textbooks would indicate more procedural than conceptual orientation. This has been nowhere more true than in the presentation of material related to overseas accounting considerations. The present typical advanced-accounting textbook will provide a chapter on the translation of foreign currencies and on the consolidation of the foreign subsidiaries. In our tax course at Bowling Green, American taxation problems for firms with foreign subsidiaries are also considered. However, typical curricula have not gone beyond that point.

This bookkeeping orientation would seem to have been at variance with the basic assumptions expressed by Roy and MacNeill in *Horizons for a Profession* that the professional man must acquire a number of professional attributes in addition to a body of professional knowledge and that, thus, conceptual understanding is needed rather than procedural skill.

I do see hopeful signs that some progress is being made in this direction and certainly the area of international accounting has exploded beyond what might be called "international bookkeeping." Horizons have been extended considerably beyond the bookkeeping or procedural requirements of consolidation of foreign subsidiaries. Certainly most theory courses (even those not labeled "International Accounting") now make some reference to differences between United States practice and certain foreign practices. Inflation recognition, and the revaluation techniques used in some countries are considered. Differences in regard to reserves, such as for bad debts, and provisions for fixed asset and inventory replacement would be mentioned. The establishment in other countries of contingency and secret reserves, and the practice of writing off items against previously established reserves is recognized, at least fleetingly. We certainly examine our own concepts of assets and liabilities in terms of differing concepts in other countries, such as the mandatory establishment of legal reserves from earnings, the absence of tax-effect accounting, and of depreciation or depletion for some fixed

assets in certain countries, and the absence of accrual for pension plans and severence allowances, as well as the unacceptability of LIFO, and the prohibition or restriction of allowances for bad debts.

The course in International Accounting at Bowling Green contains the following topics:

Accounting as an Arm of Public Policy
Accounting and the Firm
Accounting Concepts and Structure — Comparative
Accounting Impact of Legal Frameworks
International Financial Reporting
Currency Translation
Accounting Problems of U.S. Overseas Subsidiaries
Tax Considerations of U.S. Overseas Subsidiaries

Each student also chooses one country to study in depth as to the state of its accounting development and practices.

Professor Mueller's graduate course at the University of Washington is substantially similar but adds these topics:

International Standards of Accounting and Auditing
Internationalism of Professional Accounting
Comparative Treatment of Price Inflation
Accounting and Economic Development

Professor Seidler at New York University offers the following organization of topics in the course in "International Accounting:"

Patterns of Variation in International Accounting
Government and Accounting
Concepts of Uniform National Accounting
Problems of Response to Inflation
International Variation in Professional Accounting
Accounting in the Nonmarket Economy
Accounting and Economic Development

These approaches are certainly not *bookkeeping*-oriented and would seem to qualify as international *accounting.*

This change in emphasis I think I see is nowhere more clearly indicated than in terms of research effort. In the January 1969 issue of *The Accounting Review,*[4] sixteen research projects in the area of international accounting are listed, many of them dealing with practices or status in specific areas of the world. I suppose the fact that research is being conducted and doctoral dissertations are being prepared does not guarantee a worthwhile output, but at least it is a hopeful sign. In fact,

[4] "Research in Accounting — 1968," *The Accounting Review* (January 1969), pp. 186-200.

professors Mueller and Zimmerman cite approximately twenty-five doctoral dissertations in the international field as being recently completed or soon to be completed. These include such topics as accounting uniformity in Germany with implications for the U.S., the accounting problems of U.S. subsidiaries in Sweden, the status of management accounting in Mexico, auditing standards and procedures in various European countries, and an accounting model for developing countries.[5]

Perhaps even more important than the number of research projects or their intrinsic impact is the stimulation that will be provided when these research interests are translated into faculty contributions. No one can have developed and completed such a research effort without reflecting the experience in subsequent classroom effort, whether the subject taught is International Accounting, or more traditional topics.

Thus, this less obvious manifestation of curricular recognition of International Accounting seems very important to me. The number of courses may be small, but the subtle change in the type of approach to the international problem and in the level of academic interest — from an international bookkeeping to an international accounting point of view — from a procedural to a conceptual approach — should prove significant.

ACCOUNTING AS A UNIQUE AREA OF ACADEMIC EMPHASIS

I would describe a second, less obvious manifestation of curricular recognition of international accounting as a differentiation of the accounting problem from other problems of foreign enterprise administration. Accounting does not quite "fit" into the general international business course which crosses functional lines. Management and marketing aspects and the economic or financial aspects are generally covered, but accounting aspects are barely alluded to, or are even often dismissed with inaccurate generalizations or criticisms. Thus omitted from adequate consideration, a separate international accounting course may be required to supplement or complete curricula designed to interrelate the traditional functional business areas in terms of an international approach. Let me describe our experience at Bowling Green.

Several years ago we established four senior level undergraduate courses in international functional areas of business: finance, management, marketing, and accounting. These courses were designed to fill the needs of two classes of students; those who wanted to major in

[5] Otteson, *op. cit.*, p. 50.

international business could take all four courses and the integration was left largely to the student himself, and students majoring in any one of the functional areas could take the international course in their areas to broaden their understanding and help qualify them for the necessary one-world point of view required of American business executives today. There were practical considerations involved in the decision, of course, for it was hoped that the international course in accounting, for example, would draw together some accounting majors and some international business majors in building a feasible class size. We felt at that time that foreign experience of the faculty was necessary for classroom presentation of international material, and our faculty was equipped at considerable expense to teach these four courses. In retrospect I think that we have matured to some degree in this entire matter; actual foreign experience lends an aura of authority to the pronouncements of a faculty member which is probably not necessarily justified. Actually, in my own opinion there is very little more necessity for foreign experience as a prerequisite to teaching international courses than for pregnancy as a prerequisite to becoming an obstetrician.

It soon became apparent that internationalism could be little more than a hobby for these specialists, who could not hope to teach more than perhaps a section or two during an academic year because of lack of demand. It seemed inevitable that some of these faculty members would soon assume new responsibilities or develop new interests or move to another institution. It also seemed inevitable that it would soon appear that developing an international *business* area, in contrast to functional international courses within separate departments or disciplines, would provide at least one faculty member with a full international load. There is, of course, some validity in approaching the matter of the international business problem from an interdisciplinary viewpoint. At any rate, the various functional departments were asked to drop their international courses in favor of a new series of courses dealing with "The Introduction to Multinational Business," "Management of International Operations," and "Current Issues of International Business." An examination of the course proposals revealed that in the first course, three weeks were to be given to the world economy, two weeks to the importance of commercial policies to foreign investment and operations, two weeks to international operations, a week to international finance, marketing and management, and two weeks on topical subjects, such as the European Common Market. The second course gave two weeks to the significance of environment, a week to interna-

tional organizations, two weeks each to international finance, international marketing, and international management, and a week to cases showing their interdependence. The third course managed to skirt the accounting considerations equally well. (To be sure, although accounting is not separately considered, some accounting considerations certainly are examined in case material, and as an element in communication between the overseas office and the home office. Protection of financial assets under inflation, and the use of controls as a management device are also certainly included.)

In the study previously referred to by professors Mueller and Zimmerman, which is part of the study of the entire business curriculum, the editor, Professor Otteson, indicates in his summary that "the higher the level of abstraction of business courses, the less relevant the international element appears to be, and the need to accommodate geographic, social and legal differences diminishes."[6] Again he notes, "the more vocational and task-oriented the curriculum, the greater seems the need for isolating the international element for particular review and appraisal."[7] I am not certain that I fully understand or subscribe to all the implications of these quotations, but it seems to me that Professor Otteson is asserting that behavior-oriented courses dealing heavily in concepts and abstractions can be enriched by the incorporation of international material, and the international element does not otherwise need to be isolated and examined in detail. At any rate, he does not seem to call for functional international courses in such areas, and seems to feel that accommodation to geographic, social, and legal differences tend to parochialize the subject matter when a more worldwide point of view is required. On the other hand, he seems to imply that task-oriented courses must deal with concepts essentially applicable and peculiar to the United States, and that trying to interject comparative material drawn from other geographic, cultural, and legal systems may tend to be confusing — so that a separate international course relating these concepts to foreign concepts is more important. Now, of course, we do not consider accounting to be task-oriented, and it has just been observed that there seems to be a tendency to shift from a procedural to a conceptual level in international accounting. Do we thus achieve true academic respectability only to find that our separate course in international accounting is no longer needed? I think not. The professional accounting program certainly does provide a link be-

[6] *Ibid.*, p. 96.
[7] *Ibid.*

tween academic disciplines and practice, and the international element in accounting seems in this way to have great need of isolation and examination — not because accounting is essentially vocational or task-oriented, but because it is professional.

A conference was held at the University of California at Berkeley, May 24–26, 1968, on "The Professional as an Agent of Economic, Social, and Political Change in Low-Income Countries."[8] It was agreed at this conference that professions oriented more toward the social sciences, such as education or social work, had greater difficulty in adjusting to professional practice in low-income countries than did those whose professions were based on knowledge generated in the physical sciences, as, for example, engineers. Even so, however, four adjustments were conceptualized:

1. Role Adjustment. Even an engineer in Egypt, for example, must also be an administrator of the work program, and is involved in other social roles such as inviting colleagues to his residence, arranging for schooling, and the family adjustment to a new environment.
2. Role Articulation. Differences in the way professional roles are played in different societies call for different perceptions.
3. Role Variables. A significant difference in variables may have great bearing upon professional activity. Just as the architect must familiarize himself with local materials, in the same way the professional accountant must recognize differing cultural attitudes toward control, and differing cultural stances regarding taxation, to say nothing of developing an awareness of the relative quality and reliability of data.
4. Intellectual Framework. The models or theories that we take for granted as being relevant to society certainly may not be relevant to a different culture or society, when in fact professional knowledge changes due to practical testing of theory in the more advanced countries. If professionals limit the scope of their interest to U.S. problems, their knowledge in fact is very parochial and the assumption that it is relevant to the whole world is a mistake.

The approach of the Bowling Green interdisciplinary curriculum in international business assumes basically that international business is a study of adapting to foreign customs and cultural variations, with some emphasis on the ability to react to the effects on a firm of environmental differences.

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[8] The papers were summarized in the *Professional School and World Affairs,* New York: Vol. 1, No. 10, June 1968.

I hold that this approach may be adequate for executives who are assigned responsibilities in marketing and management and perhaps even to an extent in finance, but that it is not adequate for preparation as the chief accounting executive of a foreign subsidiary. I maintain that the criteria for measuring executive effectiveness abroad that would be appropriate for many other executives would be inappropriate for accounting executives. In addition to coping with all of the cultural problems that beset an American working in a foreign culture, the accounting executive must modify his professional expertise to supervise the generation of pertinent, reliable information at an economically feasible cost in time for decisions to be made regarding returns on risks. Further, he must report back to the home office the results of operations on the financial position in terms that permit their accumulation into the total consolidated financial report.

I was able to persuade my colleagues in other functional areas at Bowling Green that the international accounting problem is a unique problem, and cannot appropriately be fitted into a general program of international business. I believe that this approximate pattern may also be developing at the University of Washington, and there seems to me to be considerable justification for it. If so, this would be a second of the less obvious manifestations of curricular recognition of international accounting.

THE REALIGNMENT OF THE FUNCTIONAL FIELDS IN BUSINESS EDUCATION

Finally, I believe I see some slight relationship between the internationalization of acounting (and other business areas) and the developing realignment of functional fields to be offered in the colleges of business. I am admittedly stretching a little bit here, but allow me to express my reasons.

Foreign experience leads to a more pronounced separation between professional accountants and other Americans who are sent abroad for business management assistance. Some companies operating abroad, for example, have decided that even after the goal of replacing all Americans with nationals has been achieved as fully as possible, either the general manager or the controller will remain an American for some time. In my own foreign experience it seems to me that the elements of management decisions made on the spot fail to fall precisely within the functional areas presently to be found in American universities at all, but the foreign controller is in a somewhat ambivalent position in that he finds his areas of responsibility less sharply defined and more broadly

based than if he were stationed in a domestic division, and yet to have closer, even favored liaison with the corporate controller in the area of his professional competence.

Enterprise administration to me involved attention to only three major areas:

1. Economic considerations, if we assume by that the concepts relating to the production, distribution, and consumption of wealth.
2. Cultural, behavioral, and ethical elements (the people problem).
3. The generation, analysis, and reporting of quantitative data, to help quantify risks and returns.

Accordingly, our department at Bowling Green happens to be the Department of Quantitative Analysis and Control, and includes (in addition to accounting) information systems, applied statistics, and operations research consideration. Other groupings are possible, of course, and internationalization cannot, by any stretch of the imagination, be considered to have been a prime factor in this apparent trend.

Certainly the so-called Beamer report[9] of the AICPA committee on Education and Experience Requirements of CPA's suggests reconsideration of accounting curricula with a view toward simplifying or reordering the splintering of accounting courses. The committee does not provide for international accounting in its program, but we may assume that is expected to be covered in the various areas which are included. This, of course, is a five-year program and obviously leaves no room for international accounting at the undergraduate level. General agreement seems to be that the course is appropriately taught at the graduate level; as a matter of fact it is listed as a senior level undergraduate course at Bowling Green only because both graduates and undergraduates can take the course under our policies, whereas if it were to be designated as a graduate course, undergraduates would be banned.

It may, of course, be that what appears to be an interest in the possible reordering of functional fields in the College of Business developed as a completely independent phenomenon from the growth of interest in international accounting and international business, but it seems to me that there is an imprecise, but discernible transfer between moving from a parochial point of view in our profession to a world-wide view, and looking beyond the traditional functional boundaries imposed on our

[9] Committee on Education and Experience Requirements for CPA's, "Academic Preparation for Professional Accounting Careers," *The Journal of Accountancy* (December 1968), pp. 57–63.

profession. Perhaps the relationship is too shadowy to be considered even a phantom manifestation of curricular recognition of internationalism, but it is an interesting theory.

Perhaps I should have said simply that there is very little curricular recognition of international accounting. Certainly the progress could hardly be described as pell-mell, but then the star-studded Accounting Principles Board of the American Institute of CPA's would doubtless agree that progress is normally painful and very, very slow. The nine international congresses have likewise failed to show really significant progress. These congresses, of course, do not deal in international accounting; they are more in the nature of international open-houses or reunions. Since there is no continuing organization, no long-term goals are generated, and there is no centralized direction. The Eighth International Congress in New York in 1962 concerned itself with problems and individual problem solutions from various areas, and the Paris Congress in 1967 chose as its theme, "New Horizons of Accounting." Data processing, new management science techniques, and the effects of these on accounting were covered in the various papers. I, for one, was a little disappointed in the Paris Congress and felt that it was perhaps less than a whopping success. So, thus far even the international congresses have not been a great force for the improvement of standards for international accounting and auditing, or really solving the problems that reporting from multi-national companies creates.

Perhaps we are too impatient and like these other areas in accounting must make haste slowly. I am reminded of the story of the international accountant in heaven who inquired of Saint Peter how long a minute was there.

"A million years."

"A million years! What is a penny worth?"

Saint Peter said without hesitation, "A million dollars."

"Can you lend me a nickel?" asked the man.

"Sure!" said Saint Peter, "Just a minute."

The Need for International Accountancy

MUSTAPHA BACCOUCHE*

Accounting has been described as a response to specific needs. Determining what business needs are is a formidable task. One may intuitively assume that there are some unifying needs that may be discovered by logical analysis.

The chairman of this seminar has listed three main requirements for the existence of accountancy per se:

1. the need to record in order to report (with the emergence of the international corporation such as Unilever and Royal Dutch Shell);
2. the need to audit in order to trust (with the expansion of research and development in the accounting field); and
3. the need to analyze in order to understand (with the increase in the international business and international investment).

A fourth need has arisen. It is the need to understand in order to communicate effectively. As you may recognize, it is underlying in the third need mentioned above. This requirement may be fulfilled through the use of international accounting. The developing countries urgently need such help, as most of the developing countries do not yet have a generally accepted body of accounting principles and practices.

Usually, the management of each company in a developing country

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decides what information it needs and what sort of accounting information should be generated. The cement company in Tunisia, for example, has a fully-developed cost accounting system but no general ledger. Another example, the Ennakl company, has a complete set of accounting information necessary for obtaining an accurate balance sheet and income statement, but information reporting production costs is not available.

Such a situation arises because these countries do not have active professional associations like those in the U.S.A., where individual accountants, through a voluntary action, participate in defining a set of generally accepted accounting principles. Therefore, the only possible action which could be taken toward the development of the accounting profession will have to come from the governments of the developing countries.

THE TUNISIAN EXPERIENCE

The Tunisian government has already taken this step. In October, 1967, a new "Plan Compatible General Tunisia" was adopted. This plan introduced new procedures which assist the central planning body to obtain adequate information from the accounting data available at the firm level. This serious national effort has been made in order to adapt the accounting tool of enterprise to the ever-increasing needs of the national economy.

This attempt could be surprising, especially coming as it is from a developing country. But as was stressed by the national commission which elaborated this project, the underdeveloped countries which have a general planned economy should give priority to the establishment of a national plan and therefore seek for information essential to implement it.

As most other developing countries, Tunisia gives accounting an important role in the planning for economic development. The government believes that accounting is an integral part of the central planning process and an essential tool to attainment of the desired national growth.

In a recent issue of *The Journal of Accountancy,* David Linowes, in an article entitled "The Role of Accountancy in Emerging Nations," noted that "Accounting provides essential keys both to the measurement of what resources are available and to the control of their use."[1]

[1] David F. Linowes, "The Role of Accounting in Emerging Nations," *The Journal of Accountancy* (January 1969), p. 18.

ACCOUNTING AND NATIONAL PLANNING

National planning can be effective only with the availability of adequate information to the central planning body. Evaluation of the results of planning can come only after a reporting which is accounting, defined broadly.

This aim should and can be fulfilled through the understanding of what accounting rules, procedures, and principles are in the developed countries. Therefore, international accounting will undoubtedly help us define and use the more efficient procedures which are available in the more advanced countries.

We can learn from the success (and failure) of nations that have applied accounting methods different from ours in solving many problems that we now face.

May I note one more argument for sustaining the urgent need for the underdeveloped countries to study international accounting theory and practice. These countries cannot afford to duplicate research and, most importantly, repeat errors at a time when communication between nations is simple. Felix Kollaritsch, in an article entitled "International Accounting Practices" in *The Accounting Review,* considers the development of communication between nations as a very important reason for the study of accounting on an international basis.[2]

International accounting is not only important for the underdeveloped countries; it is also important for the more advanced countries which are investing in foreign countries. As noted earlier, the increase in international business and international investment presages the emergence of the international corporation. For example, Royal Dutch Shell and Unilever are unquestionably international corporations.

If accounting is considered a type of universal language, the syntax and grammar should also be fully understood to insure that it will be an efficient medium in making data or information known to others. The achievement of a universal syntax and grammar in the accounting language will be in the very near future a necessary precondition for efficient communication between nations. As the French writer La Rochefoucault said, "He who imagines he can do without the world deceives himself greatly."

[2] Felix P. Kollaritsch, "International Accounting Practices," *The Accounting Review* (April 1965), pp. 382–85.

The Accounting Profession in Nigeria: An International Perspective

BABATUNDE OGUNDELE*

Nigeria has been very much in the news for the past eighteen months because of internal civil crisis. Even if there were no crisis, however, Nigeria could not have been absent from the headlines long because of her unique position in Africa. She has the potential of leadership — the size, population, talents, and resources — both natural and human.

ACCOUNTING PROFESSION

Traditionally, the accounting profession in Nigeria has been singularly pro-British since many of our first accountants were trained in Britain. Accounting as an organized profession is relatively new in Nigeria. The Association of Accountants in Nigeria, first indigenous organization of accountants in the country, was incorporated on November 17, 1960, under the Nigerian Companies Act.

The membership of this professional group consisted of professional, industrial, municipal, and governmental accountants, as well as financial executives of business enterprises. The association was a voluntary

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Mr. Ogundele plans to return to Nigeria to teach accounting at the university level. His doctoral research topic is "Accounting Methods Appropriate for Economic Development: The Case of Nigeria."

organization whose main purpose was to bring accountants together for meetings and general discussions. Among its objectives were: (1) to promote a higher sense of the importance of systematic and modern accounting and to encourage greater efficiency in its application; (2) to provide a central organization for accountants and auditors in Nigeria; (3) to do such things as might be necessary to maintain a strict standard of professional ethics among its members; and (4) to advance the interest of the accountancy profession in Nigeria.

INSTITUTE OF CHARTERED ACCOUNTANTS

In May 1965, the Parliament enacted a law to establish the Institute of Chartered Accountants in Nigeria to regulate the profession and to promote its effectiveness. The institute is the only legal body charged with the control of public accountancy in Nigeria. The institute now has a membership of approximately 400–450. As of September 1, 1968, membership in the Institute became compulsory for all accountants and auditors who wish to practice in Nigeria.

MEMBERSHIP OF THE INSTITUTE

Qualified members of the British, Scotch, Irish, Canadian, and American institutes are all eligible for direct admission to membership of the Nigerian institute as chartered accountants. Others can become members by serving under articleship or approved studentship and by passing the examinations the institute prescribes. The period of articleship and approved studentship is generally five years, but it can be reduced in the case of university graduates. Membership in the institute is not restricted by nationality as is the case in the United States. I am happy to note that the American Institute of Certified Public Accountants currently is correcting this situation by extending associate membership to foreign nationals who have graduated from approved U.S. universities.

One unique provision of the Nigerian institute is the approved studentship, which has proved helpful in attracting prospective accountants who otherwise would have had to be articled. Approved studentship is better for the candidate financially, as he can hold a well-paid, full-time job. The only requirement is that he work under the supervision of a member of the Institute. Further, it alleviates the problem of finding adequate accounting firms for articleship. With only twelve head-office establishments and ten branches of public accounting firms, this had been a problem previously.

PROFESSIONAL EXAMINATIONS

The first examination of the institute was conducted in 1968. The results are not yet released. The Institute stipulates a two-part examination, including intermediate and final examinations. Included in intermediate examination are bookkeeping and accounts, costing and statistics, auditing, and a general paper which encompasses law, business, management, economics, insurance, and finance. The final examinations include two papers on advanced accounting, advanced costing, two papers on taxation, two papers on Nigerian law, management accounting, auditing, and a general paper.

The aspirant for the Chartered Accountant (C.A.) certificate in Nigeria must undertake a forty-one hour ordeal of examinations in contrast to the nineteen and one-half hours for the C.P.A. examination in the United States.

The papers are graded locally and then are again read by external examiners. The Nigerian institute has entered into an agreement with the Overseas Examination Advisory Board of the British Joint Standing Committee (of the Institutes of Chartered Accountants of Scotland, Wales/England, and Ireland) to provide for assistance in the conduct of the examinations and, therefore, insure high standards and command wide recognition.

MEMBERS OF OVERSEAS PROFESSIONAL ORGANIZATION

There were approximately 155 members in industry, 114 in government services, 31 in public practice, and 10 in teaching as of January 1968. This includes an American C.P.A. in the teaching field. Altogether there are 12 Nigerian and 10 expatriate firms for a total of 22 public accounting firms in Nigeria. As the economy expands, more accounting firms will be needed. A license to practice, renewable every year, must be obtained from the Institute of Chartered Accountants in Nigeria.

Professional regulations and ethics are very strong. Any occupation not incidental to or consistent with the work of a public accountant is prohibited. There can be no partnership with nonchartered accountants, nor are referral fees/commissions allowed among members.

MANPOWER REQUIREMENT

In the midst of an apparent oversupply of general labor, Nigeria is acutely short in specific skilled and professional manpower categories.

This shortage is critical in the intermediate group of bookkeepers, accounting and auditing assistants, and in the senior category of public and industrial accountants. One of the greatest tasks currently facing the nation is to meet these demands for high-level manpower in terms of quantity, quality, and skill.

PRESENT STRENGTH OF ACCOUNTANTS

The number of accountants in Nigeria in 1963 was approximately 1,480 with 1,566 bookkeepers and 2,417 accounting and auditing assistants. But a significant number of the assistants and auditors are expatriates. In the private sector alone, there were 386 foreign accountants as compared with 509 Nigerians. Expatriates are employed, in the majority of cases, where a shortage of qualified Nigerians exists. The universities are helping to alleviate the shortage. The University of Lagos and the University of Nigeria graduated approximately 55 and 80 accounting graduates respectively. Qualified Nigerian accountants overseas are estimated at 200. All these additions bring the current number of Nigerian accountants and auditors to approximately 1,725.

FUTURE NEEDS

The totals noted above may seem impressive for a developing country such as Nigeria, but one should not forget that the national requirements are not yet satisfied.

The economic, social, and political winds of change are sweeping powerfully over Nigeria so that one cannot pretend to see far ahead. The Nigeria of the next decade seems almost beyond everyone's horizon. Probably, in the next decade more than one thousand accountants and hundreds of bookkeepers, accounting, and auditing assistants will be needed.

THE NEED VERSUS THE OUTPUT

At present only four of the five Nigerian universities are providing accounting graduates, and the rate is appalling. Actual university education in accounting only started in 1961 at the University of Nigeria, in 1913 at the University of Lagos, and in 1968 at Ahmadu Bello University and the University of IFE.

The progress to date cannot be labeled as encouraging, but in all fairness to the universities, the best efforts are being expended to improve and expand the programs. Altogether the Nigerian universities

have more than 150 students enrolled for accounting programs. While good, internationally-written texts are used for most of the courses it is deplorable that few of these texts are written by Nigerians who could reflect the Nigerian environment.

THE NIGERIAN ECONOMY AND THE ACCOUNTANTS

Specialized services in accounting are essential for structural changes and overall growth in the Nigerian economy. Specific and unique accounting methods must be provided for better economic management, economic growth, and social progress. There are many opportunities for accountants to prove their usefulness in these processes. In most cases, the requirement are simple, but without them the process of economic management may be stalled. I am currently working in the area of accounting methods appropriate for economic management in Nigeria as my doctoral research. Problems connected with the accounting aspects of taxation and proper information for macro-economic decisions are part of the larger problems which offer both challenge and opportunities to accountants who have the ability to enter this uncharted arena.

Due to the limited facilities and funds, research in accounting in Nigeria is still negligible. Thus, there is a lack of published materials on the accounting profession, education, and practices in Nigeria. In a world where international business relations are increasing daily, it is imperative that these problems be eliminated and opportunities seized. The need for a broad general education for Nigerian university accounting students must be insured. One of the tasks ahead is to insure that Nigerian university accounting students do not suffer a deficiency in this area.

Sooner or later, Nigeria must develop its own pool of needed accounting manpower without which physical capital resources in the economy may be a waste.

Accounting education and the profession are still in the developing stage — but the progress made thus far is encouraging. The educators and professional accountants on the international and Nigerian scenes must continue their efforts to make the profession in Nigeria one of the best in the world. This responsibility falls on the present and future international accountants, both inside and outside of Nigeria. We must continue to steer the profession on the right course to greatness, especially in the case of developing nations.

We need well-qualified educators to man our Nigerian university

programs in accountancy. None of the schools as yet offers a graduate program. There will be a dire need for such a program in the future. The country could provide a fertile field for research scholars in accounting. Nigeria is virtually an unexplored land as far as accounting opportunities are concerned.

Latin American Accounting— A General Perspective

JUAN RIVERA*

At the first Latin American Accounting Conference in 1949, the accounting profession of Latin America was described as in its infancy. With the exception of Mexico, where accounting both as a discipline and as a profession has reached a considerable degree of development, the status of the accounting profession in Latin American countries has remained far behind the enviable degree of development attained by more advanced nations of the Western world.

In some of the Latin American nations, accounting is not yet recognized, either legally or publicly, as a profession but is still reduced to the practice of archaic bookkeeping techniques. Professional colleges do not exist or have just begun to appear in the last few years, as in Chile, Colombia, and Peru. There is no systematic body of accepted principles, rules, postulates, and practices in accounting. Lack of uniformity in the preparation and presentation of financial statements is noticeable, too. In view of the circumstances, the governments provide the most essential regulations in relation to financial records and accounting practice, but they do so with outdated commercial laws and ever-changing taxation regulations.

The root of the problem goes deeper when we direct our attention to the educational sphere. Loyal to their colonial origins, higher education

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institutions in Latin America are strong in philosophy and the humanities, but educational patterns seem weak in teaching applied sciences and technologies. As the oldest universities in the Western Hemisphere, Latin American universities have traditionally emphasized classical studies, and have neglected applied sciences and experimental research.

Accounting is offered as a major educational area in a very few Latin American educational institutions, and in others is relegated to a secondary position. There is a great deal of diversity in the structure of educational plans, not only among different countries, but even among different institutions at a regional or national level. The most serious of the problems in Latin American universities is the absence of full-time professors, mainly a result of the low salaries they are likely to receive. In many Latin American countries professors receive only nominal salaries. They must depend on other professional activities to meet living expenses, and are thus able to give only a fraction of their time to scholarly work.

Added to these difficulties, there is a scarcity of accounting textbooks printed in Spanish. Also, a great percentage of accounting students in Latin America drop out of school, partly because they are permitted and sometimes encouraged by the schools to work outside in offices, governmental agencies, and so on, leaving gradually less and less time for school work. Finally, it has been seen that if inadequate attention is given to the elaboration of accounting principles and rules, less importance is attached to the study of special areas of accounting, such as those related to planning and control which have been emphasized in the more advanced nations.

Having discussed these facts, the immediate reaction is a challenging search for answers and solutions. I certainly believe that the improvement of accounting in Latin American countries must be sought at the university level first, and, for that purpose, external aid is desperately needed. Some programs consisting of university-to-university cooperation, training-abroad plans for students and teachers, interchange of faculty members, and so on are actually in operation. More remains to be done, however, and here is where international accounting has a role to perform — a role we are sure will be beneficial for the progress and development of accountancy in Latin America, and consequently, in the world.

Evaluating the Political Climate for Private Investment with Special Application to Tunisia

LEE C. NEHRT*

The political climate for private investment is part of what is usually referred to as the investment climate of any given country. In the case of developing countries, particularly those which have recently gained their political independence, the political climate is often a key portion of the overall investment climate. The term "investment climate" is used by many writers in the field of international business and by most of the international businessmen, but often with different meanings. I should like to begin by defining the term investment climate and show what part of the total investment climate is the political climate for private investment. Following this will be a presentation of an approach for the evaluation of the political climate for private investment, which will then be applied to the country of Tunisia to evaluate her political climate. Finally, there will be some comments on the general applicability of this model to other countries.

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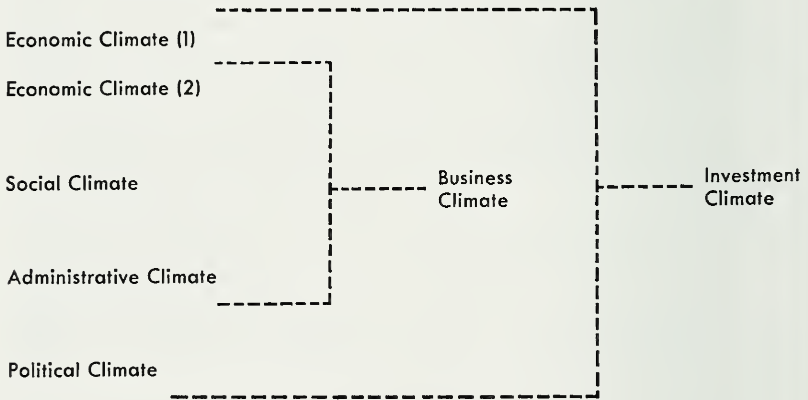
* The author, Professor of International Business at Indiana University, is currently serving as Chief of Party for an Indiana University project in Dacca, East Pakistan. The original research on this question was conducted during the summer of 1964 in North Africa and Senegal. The results indicated that far more data were needed. The opportunity to study the problem in depth came when he went to Tunisia for two years, with the Ford Foundation, to serve as an advisor to the Minister of Planning and Economics. Part of the responsibilities during that two-year period included drafting an investment code and helping to establish an investment promotion center. This led to conversations with many of the top government officials on attitudes toward private enterprise and also brought him into contact with a large number of potential investors, both indigenous and foreign.

What then does the term investment climate include? When a U.S. company is considering an investment possibility in an underdeveloped country, it is concerned with either the market for his particular product (if he wishes to manufacture it there) or the sources of raw materials or agricultural products which are available in that country and which he wishes to exploit and export. If the market exists, or if the resources are available, then the company immediately becomes concerned with all of the other aspects of investing there and these other aspects constitute the investment climate. This investment climate is therefore made up of a combination of the economic climate, the social climate, the administrative climate, and the political climate.

The diagram which follows shows these components of the investment climate and also indicates the portion of the investment climate which many people refer to vaguely as the business climate.

Figure 1. Components of the Investment Climate



We see that the economic climate consists of two parts. Part 1 relates to the country's current economic situation and prospects for future growth. To some investors, particularly in the consumer goods industries, this criterion is sufficient in itself. The investor feels that if long-term growth prospects are bullish, then there is a profit to be made.

The second part of the economic climate is the institutional framework for doing business in the country. This would include the availability of marketing channels, transportation, communications and banking facilities, and sources of supply.

The social climate encompasses such aspects of the country's economy as the availability of unskilled and skilled labor and of managerial personnel. It also would include such cultural aspects as the attitudes toward work, toward authority, and toward material gain which exist in different classes of the population. It also would be concerned with the existence, the goals and the strength of labor unions. We see therefore, that the social climate includes those items which are often referred to as the labor climate in the country, but it is much broader in content and importance than the "labor climate."

The term administrative climate is not in common usage, but it involves the most frequent source of the complaints which investors voice when discussing the problems of investing and doing business in an underdeveloped country. Within the administrative climate is included all the administrative actions of government officials which affect business operations. These include exchange controls, import permits, restrictions on the uses of foreign personnel, taxation, corruption, and price controls. Some writers refer to these factors as the "legal climate" for private investment. However, I feel that the laws themselves are far less important than the society's attitude toward the law and the ways in which the laws are administered.

It is important to note, here, that the administrative climate may be very poor — that is to say that there are all sorts of administrative delays in obtaining permissions and decisions. However, if these delays are not deliberate and are not for the explicit purpose of driving a private investor out of business, then they are part of the administrative climate rather than part of the political climate for private investment.

The term "business climate," as we see on the chart, includes all of those conditions which affect operations within a country. In other words, to what extent will the conditions in the country affect the costs of operating there?

Finally comes the question of the political climate. It should be made clear at this point that this is *not* the climate for politics in the country nor does it involve the machinations of political parties. The subject is the "political climate for private investment." This term is defined to include the risk of nationalization or expropriation, the risk of being forced out of business by deliberate government action, the risk of forceful government participation in the capital of the company, the risk of future direct competition from a publicly-owned company, and the risk of a revolution or of a change of government which would result in a government with more socialistic or nationalistic tendencies.

When I use the term socialism, I refer to the government ownership of the means of production in the economy. Utilizing this definition, one finds that every country in the world is more or less socialistic. It is only a matter of degree. In no country that I know of are 100 percent of the means of production owned by the government. Nor is there any country that I know of where none of the means of production are government-owned. The central question of this study of the political climate is, "What is the actual philosophy of the government of a given country, on this point, today, and what will be the government's attitude in the future?"

To analyze this question, I have suggested the following four factors which should be considered by the potential investor:

1. Policy STATEMENTS of political leaders and of government officials.
2. ACTIONS of the government, favorable, and unfavorable.
3. HISTORICAL CONTEXT within which the statements and actions took place.
4. PROBABILITY OF CHANGE to a more Socialist-oriented government.

The key to their application is a systematic study which changes rumors into facts and facts into understanding. Unfortunately, the potential investor rarely makes sufficient effort to analyze these factors, and even when he does the officials of the government usually try to foil whatever efforts he does make.

Let's take a brief look at each of these factors. The operating philosophies of the key individuals in a country are certainly a basic factor in the political climate for private investment. I use the term philosophy rather than ideology advisedly because the term ideology usually connotes an attachment to some one of the world-wide economic ideologies such as Marxian socialism or capitalism. Rarely are the leaders of the underdeveloped countries committed to one or the other of these ideologies. Usually they are much more pragmatic men whose primary goal is to stay in power. To stay in power, however, they often must appeal to masses and the masses may attach importance to the use of terms which are ideologically oriented. Consequently, we find the leaders of many countries claiming that they and their government are socialistic. Volumes have been written about African socialism, Middle-Eastern socialism, etc. Also the socialist label is found on many parties in Latin America and on some in Western Europe. The word "socialism," however, means different things to different people and rarely does it mean

the same thing to the government officials of the developing countries as it does to the U.S. businessman. By way of illustration, a U.S. businessman may not feel insulted when his friends call him a capitalist. But, when he goes south of the border into Mexico or into almost any other Latin American country and hears himself referred to as a *capitaliste,* you can tell from the tone of the voice that the sense of the meaning has changed.

But how does one determine the basic philosophy of the political leaders in the country that one is studying? About all that one can do is to study the various speeches that the individuals have made, under what conditions each speech was made, who the audience was, and the purpose of each speech and thereby arrive at an educated reading of the individual's true feelings. Speeches of course may be biased in one direction or another, but certain documents will normally reflect far more closely the government's views on the political economy of the country. The two key documents that one should study are the investment codes and the development plans. These usually indicate not only how the private investor is to be treated, but also the role that private investment is expected to play in the future growth of the economy.

But actions speak louder than words. A systematic study must be made to determine what the government of the country in question has actually done to indicate either a negative or positive attitude toward private enterprise. Usually the negative actions, such as nationalizations and expropriations, receive much publicity and are remembered for a long time, and these tend to color the political climate for private investment with a deep red tint unless they are offset by the actions which the government has taken to encourage private investment. Such positive actions would include the signing of foreign investment guarantee treaties, the establishment of an investment promotion center, or the passing of an investment code. Also, and most importantly, the negative actions must be assessed in their historical content.

The history of most of the underdeveloped countries, particularly in Africa and Asia, is dominated by the period of colonialism and a struggle for independence, both of which leave an imprint upon the social, economic, and political structure of the country. This imprint lingers on after political independence. For example, the type and extent of industrialization may have been such that the economy remains highly dependent upon the former colonial power. Citizens of the former colonial power or other nonnationals may have control of much of the retail trade, the wholesale trade, and nearly all of the import and export

trade. The banking system as well as much of the better agricultural land may also be in the hands of former colonialists. If the above and many other similar conditions continue to exist after independence, the government cannot truly say that the country is independent. Certain degrees of interdependence are acceptable; others are not. If the government does not take steps to change this situation, opposition will soon arise and espouse this popular nationalistic cause. The government must get the key sectors of the economy into the hands of its own citizens or under its own control. It must do this for internal political reasons and it must often do this to achieve the types of controls it needs to carry out its development plans.

If the new leader of such a country is strongly private-enterprise oriented, what possibility does he have of replacing foreign owners and managers by citizens of the country? This depends greatly upon the historical developments under the former colonial power. For example, was an indigenous entrepreneurial class given the chance to develop? Is there sufficient capital in the hands of private citizens to replace the foreign capital? How much and what kind of education was provided for the natives by the former colonial power? If the historical experience of the country under colonialism was negative in these sectors, then even if the leader were a dyed-in-the-wool nineteenth century capitalist, it may be that decolonization could not be achieved by substituting a domestic private sector for the former colonial private sector. The required human and capital resources simply may not exist. And yet, the need to decolonize remains and even grows stronger. Faced by this dilemma the only answer is that of nationalization and expropriation, by growth of the public sector and by many of the other measures which tend to frighten potential investors, both foreign and domestic. Only a study of the history of the colonial period will show the extent to which a newly-independent government may have been forced into taking the anti-capitalistic steps referred to above in order to achieve economic independence to complement its newly-won political independence. The direction and distances of these steps will vary according to the type of colonization, the political-economic philosophy of the leaders, and the strength of the government.

This leads us to the final and most important factor, namely, the probability of a change to a more socialist-oriented government. A few of the developing countries have managed to carry out constitutional elections so that the change of governments is orderly, and the existing political parties may not vary so greatly from each other that a change

from one party to another party is radical. In these cases, change is usually from left of center to right of center or vice versa, but it generally stays somewhere around the midpoint. It is of course possible that even constitutional change will result in a *very* socialist-oriented government, as very nearly happened in Chile at the time of the last presidential election, two or three years ago, and as happened in Guatemala in 1956.

The greater danger is a *coup d'etat* or a revolution which results in a government with a much more socialist-oriented philosophy than the previous government.

How does one predict revolution? This is not a simple question. Many scholars are working on different models for predicting the direction and timing of revolution, but I have no insights to offer in this respect. I think that all the investor can do is to make sure that he touches base with the political attachés in the American Embassy and with the political attachés in several of the other embassies in the country in which he is interested in investing, so as to ascertain the temperature of the politics of the country — trying to obtain a consensus on the probability and direction of change.

This approach for the study of the political climate for private investment is simple in design, containing nothing new to the sophisticated investor. It is, rather, a systematic approach to the evaluation of a specific kind of risk. The utilization of the approach requires highly subjective judgments; few of the indicators will be decisive. This application should, however, cause ignorance to yield to knowledge and an understanding of the facts will avoid excessively high estimates of the risk.

I recently completed a study where this approach was applied to each of the three North African countries of Tunisia, Algeria, and Morocco. Let me present a brief view of what happened when the model was applied to Tunisia.

Tunisia, a small country about the size and shape of Illinois, has a population of about 4.5 million people. With a total GNP of about $1 billion, it has an average per capita income of about $178 per year, which makes it about average for the developing countries.

Tunisia became a protectorate of France in 1881 and between that date and 1956 it received a fairly advanced economic infrastructure. However, only a very limited amount of industrialization took place and most of this was by the French. By the time of independence in

1956, there were 254 companies employing more than 50 workers, but only 24 of these companies were owned by Tunisians.

To further illustrate the economic dependence of Tunisia upon France at the time of her independence, in 1955 France provided 75 percent of Tunisia's imports and bought 55 percent of her exports. Of greater consequence, however, the French colonists benefitted overwhelmingly from this trade. For example, 41 percent of the exports were minerals, all of which came from French-owned companies. If one adds the agricultural exports which came from French-owned land, one finds that two-thirds of the proceeds of Tunisia's foreign trade went directly to Frenchmen, who made up only 6 percent of Tunisia's population. In addition, nearly all of the export and import companies, the wholesaling firms, and many of the retailing establishments were owned by Frenchmen. Finally, one notes that all of the banks were owned by Frenchmen or by French banks.

What actions have the Tunisian government taken since independdence which affect the political climate for private investment? One finds, and the potential investor readily learns, that the Tunisian government nationalized a number of companies, sequestered others without legal expropriation, negotiated the purchase of from 50 percent to 100 percent of other companies, nationalized all foreign-owned farm land, established several state-controlled banks (which immediately obtained a dominant position in the banking sector), established a number of key government-owned companies in the industrial field (some of which compete directly with private industry), established a government monopoly for the importing and exporting of the major goods in the country's foreign trade, and forced the French retailers who stayed in Tunisia to sell at least 50 percent of the ownership of their retail stores to Tunisians.

Thus, the government appears to have done just about everything to discourage private investment. The potential investor, arriving in Tunisia for the first time and having such a record recited to him, would be convinced that Tunisia is committed to Marxist Socialism and that it is only a matter of time before the disappearance of the private sector.

But, the above record, in isolation, is a very distorted view of the total situation. It lacks, first of all, a realization of the efforts which the government has made to encourage private investment both domestic and foreign. For example, the government has entered into private investment guarantee treaties with six different countries. Secondly, it

acted very quickly — and was in fact the first country — to ratify the World Bank's international arbitration convention. It sold off most of the shares of the government-controlled investment bank to private investors, both domestic and foreign, and has passed many laws to offer liberal incentives to private investors. And finally, it created an investment promotion center to encourage and aid private investment.

More importantly, however, the nationalizations and takeovers of the government in its post independence history are very easily misunderstood if one does not understand the historical developments which led up to them, and the historical context in which these actions were taken, and finally, without a true understanding of the actions themselves. For example, one of the governmental actions which was publicized in the newspapers as a nationalization, and which is often still referred to as a nationalization (even though it took place back in 1956) was the government takeover of the railroads. In fact, the railroads never were the possession of the French company which was operating them. They had been the property of the Tunisian government since the early 1900's. The French company had an operating concession and this contract had expired in 1950. It had never been renewed, even by the colonial government, prior to political independence. Consequently, when the government took over the railroads in 1956, they were merely formalizing a relationship which had existed for nearly a decade. Yet the myth of the nationalization of the railroads still exists.

The other nationalizations (which were truly nationalizations) were those of the electric power company and of the water and gas companies. The rationale of the Tunisian government at the time of these nationalizations was that France itself had nationalized the electric, gas, and water industries as far back as 1919 and followed political economic philosophy that those industries *belonged* in the public sector. Yet in its own colonies, France had never made that adjustment. The Tunisian's, with these nationalizations, were catching up with history and practicing what they had learned from the French.

Again, to understand the government's policies on the Tunisification of commerce, one must know the extent of French control at the time of independence to realize the sense of frustration which a government must feel. One will then understand that the elimination of the foreign economic control must be accomplished by one means or another. The elimination of the French interests in the commercial sector discriminated against many Frenchmen, many of whom had been born in Tunisia, but it was not a nationalization. It was, rather, a series of steps

which established public and publicly-controlled organizations and gave them monopolies in importing, exporting, and wholesaling of major items of trade and obliged the remaining companies to sell at least 50 percent of their ownership to Tunisian nationals.

Moving to the area of policy statements, we find that Tunisia has one political party, called the Destourian Socialist Party. The president of the country, President Bourguiba, who is also the head of the party, has explained in numerous speeches and in party documents that the term socialist is not an ideology borrowed from another country and that it rejects the postulates of Marx. Tunisia's brand of socialism does not aim at the elimination of private property, but it does hope to eliminate the abuses of private property. Destourian Socialism means also that some of the vital sectors of the economy should be in the hands of the government, to the extent that this action would increase the general well-being. The key party document states that nationalizations will take place, but only within the above context and not for ideological reasons.

In accordance with the stated goals of the party, the nationalizations which did take place were in the key sectors of the economy and took place during the first few years after independence. The public investments in industry, which have led to a fairly important public sector, took place primarily during the first three-year plan, 1962-64. The rate of public investment in industry has fallen off rapidly since 1965. In 1967, for example, the rate of public investment was 30 percent below what it was in 1965.

We find, therefore, that all of the nationalizations of industry took place prior to 1960 and were legalized in 1962-63. The sequestrations of industry, where five or six companies were taken over by the government without any legal action, were accomplished between 1958 and 1962, although most of them were carried out in 1961, immediately following and as a reaction to the Bizerte crisis. The negotiated purchases of various companies, particularly in the mining industry, took place in 1962-63. The law on the Tunisification of commerce was passed in 1961 and was essentially implemented by 1963. The government-controlled wholesale companies were established in 1962-63, and, finally, the foreign-owned farm land was nationalized in 1964.

Thus, by 1964 the process of decolonization was essentially completed. The commercial banking and agricultural sectors were under the control of Tunisians and the government had control over the electricity, gas, transportation, and mining in accordance with the philosophy of the

party. Finally, the country's foreign trade had been reoriented so that France no longer played a predominant role.

It was thus consequently believeable when, in May of 1964, President Bourguiba stated that Tunisia had finished with decolonization. In a major speech he said that eight years had passed since independence and that it had taken that long "to get rid of the after-affects, of all the vestiges and consequences, of all of those things which are the concommitants of the implantation of the colonial domination." "I believe," he said, "that we have come the full circle and that nothing more remains to cause friction between France and Tunisia." Then, referring again to the recent nationalizations of the foreign-owned farm land, President Bourguiba said, "It was a question of the last vestiges, the last show of anger, in the process of decolonization."

There remains, then, only the question of a possible radical change in the government's attitude. What is the prognosis on this? We note that the Destourian-Socialist Party is the only party, that it has little or no effective opposition, that here is a divergence of opinions and a strong discussion within the party ranks, but that it operates on a basis of consensus. There are both right-wing and left-wing tendencies, but the party follows a middle-of-the-road policy. There is little reason to believe that this would change after President Bourguiba's death, given the system for replacing the president and given the leading contenders, none of whom are ideologues.

The discussion thus far has been restricted to the development of an evaluative approach and the application of that approach to Tunisia. The countries of Algeria and Morocco provide interesting contrasts to Tunisia. We find for example that Algeria has carried out far more nationalization of industry and has a much larger public sector than does Tunisia. It is much more socialist-oriented — even with a Marxist undertone — although the Algerian leaders claim that they do not follow the Marxist ideology all the way. They are opting for a socialist-type economy in which there is an important role for the private sector, but an economy where the public sector is by far the predominant one.

In Morocco, on the other hand, the government is a conservative government under the leadership of King Hassan. In the absence of any democracy whatsoever, it has opted for a strongly private-enterprise oriented economy. This does not mean that the public sector is not a growing sector. There has, in fact, been some nationalization of French-owned farmland, and the government has taken over some of the areas of foreign commerce which were formerly in the hands of

French businessmen. The Moroccan government has also purchased several of the leading companies in order to have its hands on some of the key sectors of the economy. The national development bank of Morocco has established a number of companies, although it generally avoids a majority ownership in these companies. Finally, the mining industry in Morocco is owned primarily by the Moroccan government.

The present Moroccan government, therefore, is aiming at a public-private mix which is predominantly private but still with a fairly strong public sector.

Algeria and Morocco, however, unlike Tunisia, are not democracies. There are fairly strong conservative elements in Algeria and fairly strong leftist elements in Morocco, both of which are suppressed. Consequently, a revolution could possibly change the direction of the governments in both of these countries, pushing them toward some public-private mix other than that envisaged by the current governments. In neither case, however, should one envisage the disappearance of either the private sector or the public sector.

It is apparent that political climates for private investment in Tunisia, Algeria, and Morocco and the process by which the current situations developed are not unique. Newly independent countries react to their continued economic colonialism in different ways, but in ways which follow a pattern. The amount and the speed of the reaction of these countries is a function of what I found to be seven major determinants.

The first determinant is the type of colonization to which the country had been subjected. This includes such aspects as the number of colonialists who settled in the country, and whether they settled on the land or in the cities, the portion of good land owned by the colonialists, the amount of industrialization which took place, the portion of total industry and commerce owned by companies or citizens of the colonizing country, and the dependence of the economy on trade with the colonizing country.

The second determinant is the social and economic policies followed by the former colonial power. To what extent did education permit the formation of an indigenous entrepreneurial class, and to what extent did opportunity permit an indigenous elite to accumulate capital and therefore be in a position to invest in industry after independence?

Third is the process by which the country achieved its political independence. If there were active resistance to the colonizing power, how severe were the repressionary measures? If there was armed conflict, how violent and how prolonged was it?

Fourth is the reaction of the colonizing power to the independence. Did most of the colonists leave suddenly, causing a collapse of the economy? Did the former colonial power stop all financial aid and technical assistance? Did it eliminate prior trade preferences, thereby closing its markets to the new government and causing a disruption in the former colony's economy?

Next is the ideological orientation of the several individuals who achieve power and assume leadership positions in the new government. Were they ideologically committed prior to independence, or are they nonideological, pragmatic reformists?

Sixth is the possible existence of a strong minority force in the country which pressures the new government into either a more socialist or a more capitalistic direction.

Finally, the seventh determinant is the degree of probability of armed intervention by the former colonial power or by any of the major powers, should the new policies be Marxian-socialist in nature.

In reviewing the above determinants, it is obvious which prior conditions and which reactions would tend to foster a more socialistic policy, or lead the government to rapidly increase the importance of the public sector on nonideological bases. We see that one of the major forces will be a strong, popular, nationalistic desire to "decolonize" the economy. In addition, pragmatic solutions to the problems of development will lead the government to participate directly in the industrialization process. These factors will invariably affect the viewpoint of the foreign businessman contemplating an investment in such a country.

Unfortunately, the fear of nationalization or expropriation is usually based on myth and misinformation. For example, Barlow and Wender[1] found that many investors were, in 1954, still shying away from Mexico because they remembered the nationalization of oil properties in 1938. They had no clear idea as to the extent of those nationalizations, many feeling that they had covered a wide range of industries. One company, which felt that Mexico would be an advantageous place to invest, did not do so because it had heard that a U.S. company with $14 million invested had recently been expropriated. The authors knew that, in fact, this was not true.

It is well established that businessmen are not adverse to taking risks — that's the name of the game. But the perceived risk is highly dependent on the degree of certainty of the inputs into the decision-making

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[1] E. R. Barlow and I. T. Wender, *Foreign Investment and Taxation,* Cambridge, Harvard Law School, 1955, pp. 210–11.

process. Consequently, the potential investor is doing himself a disservice if he fails to correctly evaluate the political climate — if he depends upon rumor and hearsay and fails to understand the basis for the seemingly anti-private investment actions of the government.

In almost all cases the government has identified a role to be played by private enterprise, domestic and foreign. This role may initially be very small, or it may be large, but it is there. The problem is that, in any given country, the government will have taken certain measures, employed certain slogans, and announced certain policies which obfuscate the political climate for private investment — which add to the level of uncertainty in the decision-making process and which cause the potential investor to overestimate the political risk. The uncertainty can be reduced, however, by the application of this approach for analysis of the Political Climate for Private Investment.

*Selected International Trends in Financial Planning and Control in the Public Sector**

WILLIAM L. CAMPFIELD†

Planning and Control — the key ingredients of management in any endeavor of life — in the public sector take place in an environment of scarcity. Scientific analyses can point up the relative benefits and costs of various prospective programs. Also, conclusions may very well be drawn that there are many worthwhile programs that should be undertaken. But, rarely are there enough resources to allocate to the fulfillment of all worthwhile programs. *Planning,* in particular, and *control,* as the eternal complement to planning, become matters of trying to best proportion or strike a balance between the many demands for services by a society, and the inevitable short supply of resources to allocate toward satisfaction of the demands.

One of the transparent weaknesses of trying to discuss a subject such

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* The views expressed in this paper are the sole responsibility of the author and not intended to state official position or policy of any organization with which he is associated.

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as the one above is the tendency to generalize over a vast and complicated subject area. Time has not allowed for the kind of interviewing and other empiricism which would establish greater insights and seasonality to this article. The limitation is all the more regrettable inasmuch as economic and financial decision-making and control in the public sector have not been subject to nearly enough comprehension and study in depth.

Notwithstanding the limitations, the writer will try to present a picture of some attempts by selected governments to make significant improvements in their financial management practices. The presentation will be directed to four areas: (1) Benchmarks for Planning and Control, (2) Selected Developments in Performance Budgeting, (3) The Decision-Facilitating Role of Accounting, and (4) Audit as a Surveillance and Evaluation Instrumentality.

BENCHMARKS FOR PLANNING AND CONTROL IN GOVERNMENT

The increasing role of government, the growth of public expenditures, and arguments about the proper content and level of public activities are certainly not newly developed phenomena. In Britain, France, and other European countries, the mid-nineteenth century and forward was a period of ferment about fiscal theories and public management. We are told by one economist that in the United States the forty-year period 1880 to 1920 was one in which debate about the role of government and public expenditure policy occupied the center stage of economic controversy.[1] The argument has indeed had a long history.

And now the arguments have been stoked with added coals and furies. In almost every country the share of the public sector of the economy has grown spectacularly, especially during the period following World War II. It makes little difference whether the measure is public employment, government's share of total capital employed, or total current government expenditure. The magnitude and importance (both quantitatively and qualitatively) of the public sector in any country on the lives of its inhabitants is unmistakable.

Why then the increasing shift of interest and emphasis in the public sector as the thermostatic control of the welfare of a nation? These are a few of the major reasons:[2]

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[1] William Habacivch, *Congressional Preferences for Expenditure Proposals: Some Theoretical and Empirical Considerations,* unpublished Ph. D. dissertation, University of Illinois, Urbana, 1967, p.1.

[2] Ibid., p. 5. Habacivch's bare framework has been expanded in this paper to include fuller descriptive terminology by the present writer.

1. The increasing incidence of war (both hot and cold), with the attendent rise in military spending and economic sanctions and directions for the private sector.
2. The rapid shifts of populations with a tendency toward increasing problems of urban housing decay, welfare payments, transportation congestion, and the like, which are not solvable by the private sector.
3. The growing social interdependence of individuals and institutions, and hence a need for the government to serve as coordinator and perhaps even arbitrator.
4. The growth of special interest or pressure groups in society for whom countervailing powers must be balanced and harmonized by the government. Examples are representatives of managements, labor union, associations and institutes of various professional groups.

Governments the world over have evolved in response to the collective will of the communities they serve. In the long run they will do whatever the consensus of the communities dictates should be done with the authority granted by the people. Professor William Andrews has noted that the inert, sometimes passive, relationships of government are dimensioned differently in so-called democratic governments and so-called totalitarian governments. In the former, governments evolve in response to the will of the people, and as an instrumentality in which the people participate in some way in the management of their government, thus both identifying with the instrumentality and accepting responsibility for it. Per contra, the totalitarian governments are characterized by the absence of active participation by the people in the instrumentality, although at various points of time the government may very well function in general accord with the popular will.[3] We shall try to ascertain as we progress whether these differences in *people participation* have any substantive effect upon the efficiency in financial management in the public sector.

In every country management of the public sector involves budgeting in one form or another. Government budgeting is one of the processes by which a nation's scarce resources are allocated among competing needs and effectively controlled in use. A study of the formulation and execution of a government budget can be said to be a study in the applied economics of a country.[4] To the extent that budgetary plan-

[3] William G. Andrews, *European Political Institutions: A Comparative Government Reader,* D. Van Nostrand, Inc., New York, 1962, p. 3.
[4] B. N. Gupta, *Government Budgeting,* Asia Publishing House, New York, 1967, p. 1.

ning and control is performed competently, government programs will respond to the needs of the people, enhancing both their material and their psychic well being.

A brief diversion into the origin and early development of budgeting may be instructive. The word *budget* is derived from the French word *bougette* meaning a small bag or pouch. The word was first used in England to describe the white leather bag or pouch that held the seal of the medieval court of the Exchequer. Later the Minister's bag containing his proposals for financing government expenditures also become known as his *budget*. When he presented his proposals to Parliament he was therefore said to "open his budget"— a phrase first used in 1733. Gradually the word *budget* came to be used for the proposals themselves, and hence for any statement of plans and expectations for a future period — whether of governments, other public bodies, private enterprises, or private individuals.[5]

The national budget system came into being in England as a means of asserting parliamentary control over the executive portion of government. During the nineteenth century and early portions of the twentieth other governments followed the British lead and established budgetary systems as one of the fundamental safeguards of constitutional government. Another entirely new approach to budgetary planning and control, occasioned by the revolution in economic theory, opened up in the 1930's. The new school of economists (popularly referred to as Keynesian) directed attention to the previously not considered possibilities of using government fiscal measures to control the level of employment, the flow of money, and economic activities in general. They emphasized the role of the national budget as an instrument of economic planning and for regulating the volume of taxation and government expenditures to offset threats of either economic inflation or recession.[6]

In recent years, particularly beginning with the 1950's, yet another dimension of budgets has emerged, *i.e.*, the managerial or administraive use of budgets not only as a means of formulating policy but as a means for checking on the *efficiency* with which government programs and activities are carried out. The term efficiency in this context is used as descriptive of a state of best or relatively high output or yield in relation to some planned input of resources.

Modern systems of financial management for a government must possess considerable flexibility just as would be the need for flexibility in the

[5] *Budgeting in Public Authorities,* Study Group of the Royal Institute of Public Administration, George Allen and Unwin, Ltd., London, 1959, p. 13.
[6] Ibid., p. 14.

various systems employed by large-scale private enterprises. Accordingly, in every country the prevailing systems of financial management need periodic reexamination and updating to make them respond to the changing requirements of governmental administration.

In the United States, Great Britain, France, Sweden, and the Netherlands, where national fiscal techniques have been employed for many years, a continual examination, re-adaptation, and modification of governmental techniques is generally performed as a matter of standing policy. During the past two decades, with the United Nations serving as coordinator, recently emerging or underdeveloped nations have made considerable efforts to install or to improve their systems of government financial management.

Beginning in the 1950's governments in the emergent countries started developing meaningful information on government transactions with a view to facilitating macroeconomic analysis and better decisions over the whole range of fiscal affairs. One of the first tasks was to devise useful classifications of data. After a series of workshops an budget classification and management held in Asia, Africa, and South America, the United Nations published in 1958 *A Manual for Economic and Functional Classification of Government Transactions.* Concurrently, a number of the more mature nations as well as several of the developing nations began to experiment with refinements in program and performance budgeting. New techniques and methods for budget forecasting and evaluation of budget execution were devised. The following are the interrelated features of program and performance budgeting:[7]

1. Meaningful programs and activities are set up to show precisely the work objectives or outputs of each agency or department of a government.
2. Systems of accounts and financial management are brought in line with the classifications.
3. Each program and activity is appropriately subdivided, and schedules, work measures, and standards are established as guides for performance.
4. Performance is evaluated in the light of predetermined goals or outputs and related quantitative and qualitative measures of efficiency.

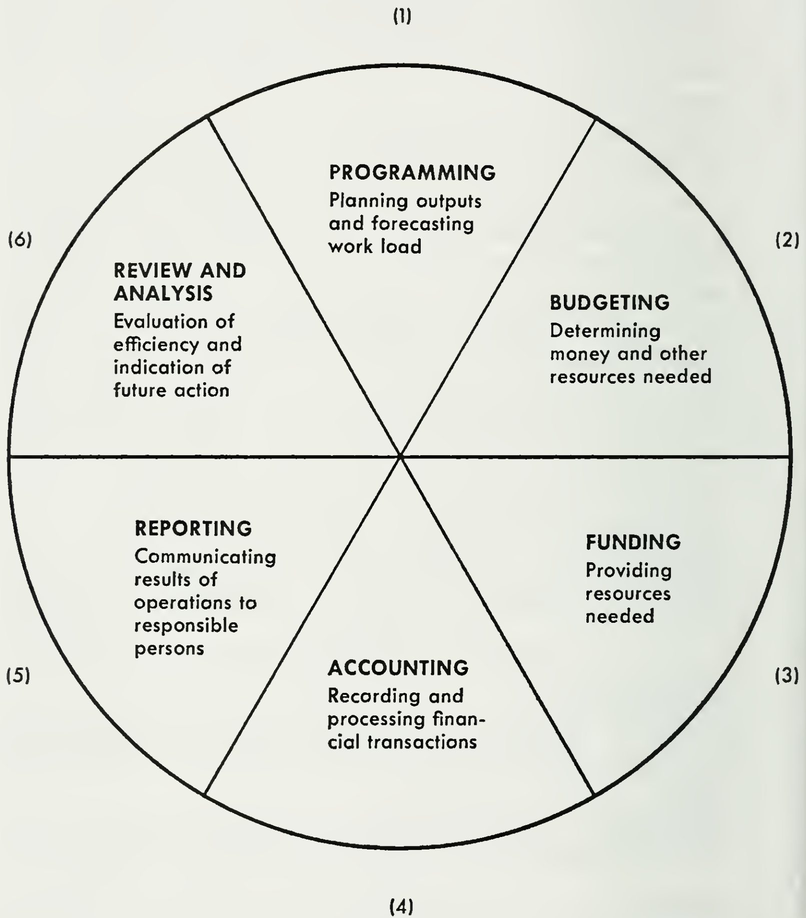
In consequence of the foregoing features, it is proper to say that a performance budget, now considered the *sine qua non* of public financial management, presents the twin inseparable and invaluable components

[7] *A Manual for Programme and Performance Budgeting* — Department of Economic and Social Affairs, United Nations, New York, 1965, p. 2.

of effective management, namely, a clear cut explanation and detailing of *why an action(s) is undertaken,* and *the money cost* of the action.

The financial management function described as a continuous cycle of actions supporting required management decisions can be presented schematically as follows:[8]

Figure 1. Financial Management Cycle



[8] Ibid., p. 29. The diagram in this paper has been modified slightly from that set forth in the cited reference.

And now, having established our planning and control touchstones, let us examine some recent performance budgeting developments around the world.

In determining where to start we might well be reminded of the story of a chance meeting between two industrialists. The German industrialist said: "Today, Germany is the strongest nation in Europe." The Japanese industrialist said: "Today, Japan is the strongest nation in Asia." The German thought for a moment, and said: "I wonder how the winners are doing?" The so called "winners," the United States and the Soviet Union, have for about a half-century represented the polar extremes in management of the economy. The former places great stress on participation of the populace and the operation of the free market as means of allocating economic resources. The Soviet Union has over the years placed emphasis on central political authority and central planning.

We are told that during the past twenty years the so-called uncommitted countries have closely watched the actions of the giants and meticulously compared the more visible performance indexes of the two economic and political systems.[9]

SELECTED DEVELOPMENTS IN PERFORMANCE BUDGETING

The United States

Perhaps the most significant thing about the American way of public management is that formulation of broad national goals emerges from a consensus that is patiently extracted from a complex of differing goals and differing emphasis on the part of the numerous regional, social, economic and political groups that comprise the United States.[10] A factor of corollary significance is that the U.S. federal budgetary system which we know today has evolved in response to fundamental changes in the size and character of the basic economic, political, and social institutions in the nation.

During the approximate first 150 years of the nation's history, financial planning and control procedures of the federal government were very simple. Prior to 1921 there was no one agency responsible for preparation of an organized budget for the government as a whole.

[9] Robert W. Campbell, *Soviet Economic Power: Its Organization, Growth, and Challenge,* 2nd Edition, Houghton Mifflin Company, Boston, 1966, p. v.
[10] *Budgeting for National Objectives: Executive and Congressional Roles in Program Planning and Performance,* Committee for Economic Development, New York, 1966, p. 58.

Each agency prepared an annual estimate of funds required, and these were brought together by the Secretary of the Treasury in a "book of estimates" and presented directly to the House of Representatives.

As a result of administrative abuses in government during the early twentieth century, the impact of public expenditures during World War I, the successful use of an *executive budget* by some American cities and states, and the use of advanced budgetary methods by some European governments, the United States government was ripe for reform by 1921. Hence, the Budget and Accounting Act of 1921, which placed direct responsibility upon the President for preparing the federal budget, was a landmark in making possible, for the first time, a unified national budget.[11] It is of interest to note along this period of history that although World War I called forth heavy public expenditures by the standards of that day the magnitude of federal funds in that era was trivial compared to the funding of today. For example, in fiscal year 1930 the federal debt was about $16 billion and the expenditures for the year about $3 billion.[12] Forty years later the budget for fiscal year 1970 shows the federal debt estimate for June 30, 1969, to be approximately seventeen times as large at $277 billion, and annual expenditures sixty-five times as large at $195 billion.[13]

Between 1921 and 1965 there were but few milestones in reforming financial management in the federal sector. Perhaps the most noteworthy happenings were the following: (1) the transfer in 1939 of the Bureau of the Budget from the Department of the Treasury to the Executive Office of the President, thus permitting improvement and strengthening of fiscal control by the President over the executive branch of the government, (2) enactment by Congress of the Government Corporation Control Act of 1945, which required the President to include in his annual budget document *business-type* budget estimates for all wholly-owned government corporations and which mandated the Comptroller General of the United States to perform annual audits of the financial activities of these corporations, (3) enactment of the Budget and Accounting Procedures Act of 1950 which restated the principles and responsibilities for improving accounting, financial reporting, and auditing and authorized for the first time the preparation

[11] Ibid., p. 17.

[12] Jesse Burkhead, *Governmental Budgeting*, John A. Wiley & Sons, New York, 1955, p. 21.

[13] *The Budget in Brief: Fiscal year 1970*, Executive Office of the President, Bureau of the Budget, U.S. Government Printing Office, Washington, D.C., 1969, pp. 6–7.

of a performance budget with information in terms of functions and activities of the government, and (4) enactment of legislation in 1956 which required federal agencies to develop cost-based budgets and establish accrual-basis accounting in accordance with principles and standards by the Comptroller General.[14]

This brief sweep through the history of budgetary reform in the United States brings us to significant developments of the past four years, namely: (1) the 1965 government wide adoption of planning-programming-budgeting (PPB) of the type that had been initiated by the Defense Department in 1961 and used successfully by that department since inception, and (2) the adoption of budget reforms and recommendations presented in October 1967 by the Presidential Commission on Budget Concepts.

The essential characteristics of the PPB system are: (1) development of more concrete and precise identification of program objectives, (2) systematic consideration of alternative means of reaching those objectives most efficiently, and (3) determination of the total lifetime costs of present decisions.[15]

PPB systems stress the use of modern analytical techniques to provide both a firmer basis for choice among alternative program proposals and clear-cut standards for later measurement of actual accomplishments. Alain Enthoven, one of the architects of PPB applications to national defense planning, states that in order to obtain optimal results from systems analysis and related studies, an agency must: (1) perform open and explicit analysis in which all assumptions, factors, calculations, and judgments supporting alternative programs are clearly disclosed for all interested parties, and key issues (especially when there are differences between program administrators) are highlighted and calculations made to show the results of each differing assumption, and (2) responsive cost/benefit or cost/effectiveness analysis is made which seeks to identify the alternative(s) which yields best output or result from the resources available.[16]

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[14] *Budget Reform and Overall Executive Management,* unpublished address by the Comptroller General of the United States at the Institute for Budget Management Training, Lexington, Kentucky, July 10, 1968.

[15] *The Budget in Brief,* loc. cit., p. 62.

[16] Alain Enthoven, "What Systems Analysis Is and Is Not," *Defense Management Journal,* Winter 1967–68, pages 11–13. In respect to drawing precise specifications in support of the differing assumptions, Dr. Enthoven describes a situation in which he and the Secretary of the Army were in conflict on estimates of the probable damage to the United States and the Soviet Union which would result from various possible thermonuclear wars, with alternative anti-

While PPB is not significantly new or different in concept from earlier performance budgeting philosophy it does involve some fundamental changes in traditional budgeting which will take several years to perfect. In recent testimony before congressional committees it was deduced that PPB has engendered these major circumstances:[17]

Advantages

Departments and agencies can now determine their program goals and objectives with greater precision and comprehensiveness.

Decision-makers are furnished better data for ordering goals and program priorities, and in choosing between alternative ways of achieving program objectives.

Disadvantages

The PPB system has been applied differently and unevenly under similar circumstances in various agencies and departments, and this has caused difficulties in evaluating multiagency programs. For example, the Army Corps of Engineers does not include in its programming the secondary returns or benefits relating to its construction projects, *e.g.,* improvement of highway access contiguous to, say, a constructed bridge. Per contra, the Bureau of Reclamation, Department of Interior includes all measurable direct and indirect benefits in its analyses of construction projects similar to those of the Army. There has also been evidence of use by different agencies of widely varying discount rates for cost/benefit analyses applicable to similar programs.[18]

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ballistic missile defense systems. At the request of the Secretary of Defense, Enthoven and the Secretary of the Army prepared a joint memorandum which made explicit the assumptions of each party, the points of agreement and disagreement, rules for computations, and tables of results under each set of stated assumptions. In this way the Secretary of Defense, the Joint Chiefs of Staff, the military department officials, and others were furnished sufficient information to bring their respective judgments to the determination of which assumptions and related estimates were most realistic. As an oversimplified example of the second point, the cost/benefit analysis in terms of seeking military effectiveness might alternatively seek an answer to: (1) Given $1 billion available, how much bombing (assuming the present state of the arts, assuming specified material and equipment, and assuming various reactions and interactions vis-à-vis the enemy) of enemy targets is attainable? or (2) given a specified degree of military effectiveness (*e.g.* destroy X number of enemy targets at Y locations) what is the least cost for each of a set of assumed materiel/ troup/ aircraft/ missile combinations or postures.

[17] *The Planning-Programming-Budgeting System: Progress and Potentials.* Hearings before the Subcommittee on Economy in Government of the Joint Economic Committee, Congress of the United States, 90th Congress, 1st Session. (U.S. Government Printing Office, Washington, 1967). Pages 1–4.

[18] For example, the Agency for International Development has used discount rates ranging from 8 percent on a power plant project to a rate as high as 12 percent in evaluating certain highway projects. On the other hand, the Department of Interior has used a 6 percent discount rate on certain utility type pro-

Agencies and departments have found in many instances that they could not obtain current essential data. For example, population-type statistics were available only by reference to the 1960 census data.

Programs are not currently structured on a broad cross-agency basis; hence there is clear and present danger of program duplication and conflict.

The second major recent development in federal budgetary planning and control improvements pertains to reform in budget concepts as adopted in the 1969 budget in accordance with recommendations made by the Presidential Budget Commission of 1967. The primary thrust of the basic recommendations was adoption of the concept of a unified summary budget statement to replace the multibudgets heretofore used. The procedural implementation of the recommended unified budget is not difficult since it involves largely a mere rearranging of tables prepared by the Bureau of the Budget and the Treasury Department. However, as revealed by several critiques of the Commission's Report,[19] the new focus upon all inclusive or consolidated totals of current and proposed government financial activity may well call forth as many new controversies as the new emphasis dispels old fears of proliferation and manipulation of budgets.

It will probably be useful to just tick off the key recommendations by the Commission, and then discuss briefly some of the things that particularly concern budget people and accounting personnel. In essence, the Commission's key recommendations were that:[20]

1. A single federal budget concept should be used.
2. The budget should include all programs of the federal government and its agencies.

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grams, and the Department of Transportation has used a zero rate in evaluating many highway projects involving federal funds. For further examples refer to: *Interest Rate Guidelines for Federal Decision-making,* Hearing before the Subcommittee on Economy in Government of the Joint Economic Committee, Congress of the United States, 90th Congress, 2nd Session. (U.S. Government Printing Office, Washington, 1968). Pp. 4–7.

[19] For example, refer to *The New Federal Budget Concept: An Explanation and Evaluation,* Tax Foundation, Inc., New York, 1968, pp. 10–11; and Samuel B. Chase Jr., "Federal Budget Concepts: A Critique of the Report of the President's Commission," *Proceedings of a Symposium on The Federal Budget in a Dynamic Economy,* The American Bankers Association, New York, April 2, 1968, pp. 24–25. Each of the cited references points up sins of commission, *e.g.,* combining loan and credit activities of the government with conventional receipt-expenditure activities in order to measure the budget surplus (deficit) and sins of omission, *e.g.,* excluding some lending programs such as federal land banks and federal home loan banks.

[20] *Report of the President's Commission on Budget Concepts,* U.S. Printing Office, Washington, D.C., 1967, pp. 6–10.

3. Budget revenues and expenditures should be stated on an accrual basis, *i.e.*, respectively as earned and as incurred rather than on the cash basis used in the past.
4. Federal loans, after deduction of any subsidy elements, should be differentiated in the budget from all other expenditures.
5. Sales of participation certificates in loan pools should be treated as a method of financing rather than as a deduction from expenditures.
6. Revenues from agency activities which are enterprise- or market-oriented should be treated as offsets to the expenditures to which they are related.

Of considerable interest to all persons concerned with budget theory and practice is the fact that the Commission, in explaining its recommendations, took great care in underscoring the role and importance of the Congressional appropriations review and authorization process as the focal point in the actual allocation of resources among the various federal programs. Also of significance was the Commission's emphasis on effective use by agencies of the PPB system approach to budget preparation and review. At the risk of being accused of laboring the obvious, the Commission in effect endorsed the idea that agencies needed to ensure that adequate disclosure would be made of all information needed for sound program decisions, initially in presentations by the agencies to the Bureau of the Budget and subsequently during hearings before the legislative and appropriations committees of the Congress.

Good financial management also requires proper organizational arrangements, and overt efforts to seek out and apply measures that result in maximum output at least commensurable cost. In respect to the former, many fundamental organizational changes have been made by the federal government during the past five years to adapt its structure to changing program requirements. Some of the more significant changes follow: (1) In 1964, the Office of Economic Opportunity was established to be the central agency for the planning, coordination, and operation of the national antipoverty program; (2) in 1965, the Department of Housing and Urban Development was created to provide overall coordination of programs designed to improve urban areas; and (3) in 1966, the Department of Transportation was formed, bringing together a number of major transportation programs previously administered in separate agencies.[21]

In order to achieve maximum cost consciousness in the financial affairs of the federal government, the Bureau of the Budget initiated in

[21] *The Budget in Brief*, loc. cit., p. 61.

1965 a government-wide systematic, formal cost-reduction program. Under this new effort, the head of each federal agency and department was required to: (1) assume direct supervision of a formal cost reduction program; (2) establish specific dollar cost reduction goals; (3) subject every major proposed expenditure to searching scrutiny in terms of costs and benefits; (4) employ independent means to verify savings; and (5) recommend high-priority use of savings achieved.[22] In order to strengthen the effort, an Advisory Council on Cost Reduction, which was established in 1967, has consulted continuously with leaders in the private sector to benefit from their experience and ideas for reducing costs.

The United States budget significantly influences the economic activity of the country, and in turn is greatly influenced by the changing needs of the American people. The changing composition of the budget, disclosed in Table 1 below, reveals much about the nation's priorities.[23]

Table 1. Changing Structure of Federal Budget Outlays (In Billions of Dollars)

PROGRAM	1964 Actual	1968 Actual	1969 Estimate	1970 Estimate
National Defense	$ 53.6	$ 80.5	$ 81.0	$ 81.5
(Special S.E. Asia support)	....	(26.5)	(28.8)	(25.4)
Major social programs:				
Social Insurance (excluding Medicare)	22.7	30.2	33.3	37.2
Welfare payments and service	3.4	4.6	5.3	6.1
Education and Manpower Training	1.6	6.4	6.5	7.2
Health (including Medicare)	1.8	9.7	11.4	13.0
Housing and community development	0.8	2.7	3.3	4.4
Subtotal major social programs	30.4	53.7	59.8	67.8
Interest	9.8	13.7	15.2	16.0
Veterans benefits and service	5.7	6.9	7.7	7.7
All others	19.2	24.0	20.0	22.4
Grand Total	$118.6	$178.9	$183.7	$195.3

Between 1964 and 1970 annual budget outlays will have increased about $77 billion or about 65 percent. Of the increase, $28 billion ($25

[22] Ibid., p. 62.
[23] Ibid., p. 19.

billion for special Southeast Asia support) is attributable to increased spending for national defense, but spending for major social programs has similarly increased. As the nation has intensified efforts to widen the opportunities for the disadvantaged and improve the quality of life for all Americans, the expenditures in these areas have more than doubled since 1964, increasing by approximately $37 billion, or 123 percent.

While the demand for public services has grown dramatically during the decade of the 1960's, so has the nation's ability to pay for these services. The estimated $195 billion of expenditures for 1970 is roughly one-fifth of the estimated gross national product (GNP) for that year, and the estimated outlays for the Vietnam engagement will amount to less than 3 percent of GNP. The increase in the United States' GNP since 1960 has been about $400 billion, which is larger than the total output of the six countries of the European Economic Community (Germany, France, Italy, Holland, Belgium, and Luxembourg), or roughly comparable to the total GNP of the Soviet Union in 1968.[24]

The Union of Soviet Socialist Republics (USSR)

Perhaps the most timely observation we can make about economic planning and control in the Soviet Union is that the idyllic socialist state of Marx-Engel design is being rapidly transformed into a benevolent people's capitalism. Between 1960 and 1966 Soviet leaders have brought about considerable changes in economic thought and applications as they groped with ways to counter the substantial deterioration that has occurred in the Soviet Union's economic performance since the late 1950's. A revolution in economic theory spearheaded mostly by economists V. V. Novozhilov and L. V. Kantorovich has brought about a retreat by Soviet leaders from the previous high degree of centralized planning and a movement from the principle of administrative guidance in the allocation of resources to that of price guidance.[25]

To obtain better perspective on the shape and depth of change in Soviet economic planning it is well to note some of the circumstances underlying the development of the USSR's eighth five-year plan, covering the period 1966–70. The plan, which was ratified by the Twenty-third Congress of the Communist Party in March–April 1966, was set up in an environment influenced largely by the troublesome problems and unfilled promises of the ambitious seven-year plan, 1959–65, formu-

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[24] Ibid., p. 52.

[25] Robert W. Campbell, *Soviet Economic Power: Its Organization, Growth and Challenge* — 2nd Edition. Houghton Mifflin Co., Boston, 1966, p. vii.

lated by former Chairman Nikita Krushchev. Some of the inherited results that had to be overcome by the new Soviet leadership, L. Brezhnev, the General Secretary of the Communist Party, and A. Kosygin, the Chairman of the Council of Ministers of the USSR were:[26]

1. Failure of the agricultural sector to come up to announced official expectations; *e.g.* the average annual growth rate during the 7-year period was only 1.6 percent compared to the planned yearly rate of 7.0 percent. This was a deviation from standard of 77 percent.
2. An overall slowdown in the economic growth rate averaging a minus 27 percent.
3. A decline of 45 percent in the rate of per capita consumption.
4. A decline of 17 percent in the planned rate of investment.
5. A decline of 14 percent in the planned rate of urban housing new development.

After much backing and filling among Soviet leaders in trying to strike an appropriate balance in allocating resources among the competing uses — investment, consumption, and national defense — the evidence, though sketchy in detail, seems to support the belief that the following are the emphases for resource allocation during 1969 and probably continuing into 1970:[27]

1. A marked increase in outlays for military and space programs, which also would constitute an increase in the share of GNP allocated to these programs.
2. Immediate and large additions to consumer money incomes through adjustments in base wages and in incentives and bonuses. Largely as a result of two good crop years, consumption of goods and services expanded during 1966-67 at about twice the rate recorded during the previous five years. The Soviet leaders were hopeful that maintaining this momentum would go a long way toward satisfying consumers' desires for greater diversity and better quality of food and other consumer goods.
3. A slow down to deceleration in the rate of growth of investment especially for producer goods.
4. A cutback from earlier plans to allocate large amounts of additional resources to agriculture during the period 1966–70.

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[26] *Soviet Economic Performance 1966–67* — Materials prepared for the Subcommittee on Foreign Economic Policy of the Joint Economic Committee, Congress of the United States, U.S. Government Printing Office, 1968, p. 2.
[27] Ibid., p. 4.

Perhaps even more significant than the changed emphasis on the proportioning of resource allocation was a change or modification in the philosophy of resource allocation initiated in the fall of 1965. Among the key modifications were: (1) individual enterprise managers were given more authority to make decisions of the kind previously made at high central-authority levels. For example, a shoe manufacturing and distribution outlet could determine its production quotas, payroll requirements, inventories, etc., as a consequence of consumer demand schedules, as contrasted with previously centrally determined production and other quotas for the enterprise, and (2) criteria and guides for decision as well as evaluation of operating results were to be based upon such measures as volume of sales, profits, and rate of return on capital employed. During 1966 there were 704 enterprises comprising about 8 percent of the total industrial production of the Soviet Union that adopted to this new form of planning and control. At the end of 1967 about 6,000 enterprises were under the new system, and the Soviets expected that the total transfer of enterprises would be completed prior to the conclusion of the 1966–70 plan.[28]

Additional light can be shed on what is happening in the way of economic planning by taking a look at the Soviet State Budget. This budget is much broader than national budgets for Western countries because in addition to encompassing the conventional national, republic, and local government activities, it includes, for example, funds for financing many kinds of investments that normally are financed by the private sector in capitalist countries. In rubles, the Soviet annual expenditures are about half as large as the Soviet gross national product. Compared to the United States, this proportion is about twice as great as that for U.S. budgets at all levels of government combined.[29]

Earlier we showed that comparative U.S. public expenditures over a period of time revealed shifts and emphases in priorities of public planning. A similar result can be obtained by examining the trend of Soviet expenditures, as summarized in the table following.[30]

It is always dangerous to make comparison of somewhat dissimilar circumstances, particularly since the Soviet State budget includes so many things that the U.S. federal budget does not. Notwithstanding, we call attention to the fact that the 41 percent increase in expenditures for the eight-year period 1960-68 is somewhat smaller than the approxi-

[28] Ibid., pp. 8–9.
[29] Ibid., p. 45.
[30] Ibid., p. 47.

Table 2. USSR Expenditures of the State Budget (In billions of current rubles)

	1960	1965	1966	Plan 1967	Actual 1967	Plan 1968
Financing the national economy	34.13	44.92	45.18	46.92	49.9	50.19
Industry & construction	15.59	20.99	21.06	21.87	[a]	23.9
State agriculture and procurement	4.75	6.77	6.30	6.35	[a]	9.0
Trade (foreign & domestic)	3.59	2.27	2.84	3.17	[a]	4.0
Transportation and communications	2.81	2.83	2.61	2.67	[a]	2.3
Municipal economy and housing	3.22	4.23	4.53	4.08	[a]	[a]
Residual	4.17	7.83	7.84	8.78	[a]	[a]
Social-cultural measures	24.94	38.16	40.76	42.92	43.4	45.81
Education, science, and culture	10.31	17.51	18.73	19.67	19.9	21.0
Health and physical culture	4.84	6.67	7.10	7.40	7.4	7.6
Social welfare measures	9.79	13.98	14.93	15.85	16.1	17.1
Defense	9.30	12.78	13.40	14.50	14.5	16.7
Administration	1.09	1.28	1.41	1.44	1.5	1.53
Loan service	.70	.10	.10	.20	[b](.2)	[b](.2)
Budgetary expenditures residual	2.97	4.38	4.73	4.04	[b](5.0)	[b][c](9.17)
Total expenditures	73.13	101.62	105.58	110.02	114.5	123.60

(a) Not available.
(b) Estimated.
(c) Including reserve funds of the Councils of Ministers.

mately 65 percent rate of increase in the public expenditures of the U.S. government for the period 1964–1970. It is also interesting to note that in the USSR the increases in expenditures for defense were 80 percent and also 80 percent for social-cultural measures. In the United States the increase in defense expenditures for the shorter time span was only 52 percent, but the increase in expenditures for major social programs was a huge 123 percent.

Although there have been substantial changes in the Soviet economic system during the past decades, the leaders of the Soviets give every appearance of maintaining a deep faith in the value of the deterministic process of central planning. It has been aptly noted by a close student of Soviet fiscal planning that a factor that tends to aggravate difficulties in that country is the bureaucratization not only of the direction which the economy takes but also of the productive processes themselves.[31] In spite of the decentralization of decision-making initiated by the Brezhnev-Kosygin team in 1966, there is still a belief extant in the western countries that the complicated Soviet scheme of wages and bonuses does not augur well for efficiency. The pay or incentive system requires complicated accounting and such a large percent of personnel engaged in control activities tends to impede rather than enhance over-all worker productivity.

Two Democratic Monarchies

We have spent some time discussing the two political and economic monoliths of our times. It may serve our discourse well to examine the public planning carried on in two smaller nations, Great Britain and Sweden because: (1) both nations rely heavily on free enterprise, comparable to the United States, but both also do welfare programming comparable to the socialist objectives of the Soviet Union, and (2) these two nations, as democratic monarchies, operate legislatively and administratively in a highly comparable manner.

Great Britain. Planning in an economy which, like that of the United States, is based upon open, competitive enterprise must take the form primarily of a voluntary coordination of the plans for expansion of both the public sector and the private sector of the economy. To improve the process of coordination, Great Britain has been experimenting in recent years with what has been termed *indicative planning.* For this purpose there was created in 1962 a body known as the National

[31] Luca Pietromarchi, *The Soviet World,* A. S. Barnes & Co., Inc., New York, 1965, p. 232.

Economic Development Council, which in effect constituted a partnership between government, private management, and labor unions. The primary objective was obtaining better economic performance in Great Britain. Among the most important duties of the Council was studying the plans and prospects of the principal industries in Britain and correlating these plans with one another and then with the plans of the British government for the public sector, including the nationalized industries.[32]

However, in 1964 the British established a new government department, the Department of Economic Affairs, in order to give the national government a more positive lead in planning. The National Economic Development Council then became mostly a forum for discussing the economic plan of the government at various stages of its formulation. Linked with the main council are separate councils for each of the different industries which serve as channels for communication between the government and industry.[33]

It may again be instructive, as we have done earlier in respect to the USA and USSR, to read out of national public expenditures over time some indications of reordering of priorities and change in emphases on allocations of resources. The following table discloses the trend of approximately two decades.[34]

Table 3. Public Expenditures in the United Kingdom (Millions of pounds at 1958 prices)

	1950	1953	1955	1960	1966
Defense	1395	2221	1901	1507	1688
Domestic-civil	4396	4419	4524	5331	7245
Other	220	92	138	174	268
Total	6011	6732	6563	7012	9201

If we use the period, 1960–66, a seven-year measurement which would approximate the scale of measurement applied in this paper to public expenditure changes in the USA and USSR, we find that the

[32] Noel Branton, *Economic Organization of Modern Britain,* The English Universities Press, Ltd., London, 1966, p. 6.

[33] Ibid., p. 8.

[34] E. A. Holmans, *The Growth of Public Expenditures in the United Kingdom since 1950,* Manchester School of Economic and Social Studies, Manchester, England, 1968, p. 321.

respective percent increases in total expenditures, 17 percent, defense expenditures, 12 percent, and major social programs, 36 percent, are significantly smaller than the indicators of change for the USA and USSR over a somewhat comparable unit of time.

The foregoing picture of a slowdown in priming of the public sector was an early predictor of the current difficulties of Britain's economy. *Time* magazine, in discussing recent tax increases in Britain, pointed out some current doubts about the vigor of public management of Britain's economy, namely: (1) the long-promised economic recovery is moving a lot slower than the government had hoped, and (2) for a substantial part of the past two decades Britain has ceased to make optimal use of its resources or technological know-how.[35]

Among the various techniques and methods used by Britain's leaders to reverse the down trend in political and economic effectiveness have been some major governmental organization changes or the creation of new organizations. The following include some of the more significant events:[36]

1. Reduction of the size of the Cabinet from twenty-three to twenty-one.
2. Redistribution of major duties of the Foreign Office, the Department of Economic Affairs, and the Ministry of Defense. In the Ministry of Defense greater interservice coordination and more unified management planning and control was encouraged by giving the three senior Ministers of Defense special spheres of responsibility cutting across service lines.[37]
3. The Ministry of Land and Natural Resources was dissolved after three years of ineffective operations and its functions transferred to the Ministry of Housing and Local Government.
4. A Parliamentary Commissioner for Administration (popularly known as the Ombudsman) was established to facilitate control of administration and the investigation of citizens' complaints.
5. Establishment of the Industrial Reorganization Corporation (IRC) to bring about modernization in United Kingdom industry through promotion of socially desirable mergers. The IRC would act as "good fairy"

[35] "Britain's Resistance to Painful Cures," *Time,* April 25, 1969, p. 104.

[36] B. C. Smith and J. Stanyer "Administrative Developments (Great Britain) in 1967: A Survey," *Public Administration,* Autumn 1968, pp. 239–46.

[37] Ibid., pp. 240–41. For example, the Minister of State for Army was given responsibility for all international policies relating to defense; the Minister for Navy was answerable for all personnel and logistics policies; and, the Minister for Air Force was responsible for the defense budget as a whole as well as for coordinating research and development for all three services.

in bringing about "marriages" between private firms without retaining a controlling interest, or in the long run without retaining any financial interest.

Sweden. Sweden is a very small nation (about eight million people) heavily dependent upon export trade, and hence an ardent advocate of free international trade, and a country extremely sensitive to economic developments and movements of the business cycle in other countries. Consequently, the shape and scope of economic planning is influenced more heavily by foreign trade considerations than is the case in most of the Western democracies.[38]

Constitutionally, the Swedish Parliament has an important position in economic policy-making. Much in the fashion of the British Parliament, it shares the formulation of legislation with the executive arm of government. Also in comparable fashion to Britain's Chancellor of the Exchequer, the Swedish Minister of Finance is the key executive officer in initiating and in applying national budgetary policy and control.

But perhaps unlike other countries, there has been an increasing emergence and influence by labor and other "pressure groups" during the past two decades in shaping public policy in Sweden. This circumstance is attributable in no small measure to the manner in which legislative proposals are initiated and presented to the Swedish Parliament. Royal Commissions, comprised of members of the government's Central Administrative Boards (CAB), politicians, and representatives of various groups of labor and other citizens, study any matter referred to it by the Government. The Commission reports to the Swedish Cabinet which, prior to submitting a proposal for legislation to Parliament, solicits comments from the government's administrative agencies as well as from private institutions and from various pressure groups.

The following examples of participation by royal commissions gives a fairly good indication of their role in the preliminary stages of political and economic planning in Sweden:[39]

1. A Commission on Post-War Economic Planning submitted to the Swedish Cabinet a series of reports dealing with industrial capacity and employment problems, and proposals for a broad range of public and private supported projects that might be initiated during any economic crisis.

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[38] Hans B. Thorelli, *Overall Planning and Management in Sweden,* The Industrial Council for Social and Economic Studies, Stockholm, 1957, p. 23.
[39] Ibid., p. 19.

2. A commission studying the problems of capital investment for the late 1950's and the 1960's called for acceleration of public investment in numerous areas and activities that had been held back during World War II and in the early post-war years.
3. A commission operated in the late 1950's to study the possibilities of preserving a stable currency in Sweden.

All of the foregoing suggests that the political process in Sweden, described as constitutional, parliamentary democracy, is one of widespread and active participation by Swedish citizenry.[40]

Before passing on to other matters it is pertinent to note that although the influence of the Swedish government permeates heavily all economic planning in the country, Sweden is properly categorized as a free enterprise or capitalistic country. The following figures, set forth in the Swedish National Budget for 1967-68, point up vividly the extent of influence by the private sector.[41]

Table 4. Expenditure and Investment in the Public and Private Sectors of Swedish Economy (In millions of Kroner)

SECTOR	Expenditure		Investment	
	Amount	Percent	Amount	Percent
Public				
Central Government	7,800	10.0	7,700	20.0
Local & Regional Government	10,700	13.0	6,400	17.0
Private	62,500	77.0	24,000	63.0
Total	81,000	100.0	38,000	100.0

South America — A Developing Region. Recent indicators of relative stability in the economic and political structures in South America have revived the interest of students of public management in that continent. Generally, the governments of most of the countries have taken on a hue of calm and reason; national currencies have been put on sounder bases; industrialization has taken hold and a trained work force is emerging. And, several countries, previously noted for their protectionist attitudes,

[40] Albert H. Rosenthal, *The Social Programs of Sweden,* University of Minnesota Press, Minneapolis, 1967, pp. 92–96.
[41] Ibid., p. 160.

are offering significant economic inducements to draw foreign investment into vast undeveloped areas.[42]

Although the countries in South America taken as a geographic unit are considered to be less developed economically than most other nations in the so-called Western World, there are considerable differences in stages of political and economic development in the various countries. Accordingly, in discoursing on our central theme of international trends in public management we will perforce generalize most circumstances but cite specific country conditions as warranted.

Professor Edward L. Elliot, who has spent considerable time in South America, tells us that the following features of undeveloped and underdeveloped countries are present in most of South America:[43] (1) a high ratio of population to capital, (2) a relatively high dependence on primary production of one kind or another, (3) a low level of income and well-being as compared to other parts of the Western World, and (4) rapidly growing populations.

Professor R. E. Seiler, also a veteran of many years in South America, points up the need to accelerate the improvement of fiscal planning by giving us these two vignettes which underscore the need:[44]

1. In one country, the Minister of Public Works budgeted an amount for construction and paving of roads without obtaining information on:

(1) the number of miles of paved or unpaved roads existing at the time, (2) traffic density, and (3) reasonably accurate estimates of costs of construction. The predictable result was that all kinds of "bottlenecks" occurred, and the nation's critically inadequate transportation system was not improved to any appreciable extent.

2. In another country, a $26 million chemical fertilizer manufacturing plant was constructed. The fertilizer was sorely needed to improve the nation's agricultural productivity. Upon completion of the plant and during the early period of operation it was discovered that the cost of production was considerably higher than the cost to import the fertilizer. The plant, which had operated only a few months, was closed and the capital invested in the plant was for the most part irretrievable.

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[42] Michael P. Sampson, "Economic Planning — a Key to the New Promise of South America," *The Lybrand Journal,* Vol. 49, No. 4, 1968, p. 23.

[43] Edward L. Elliot, *The Nature and Stages of Accounting Development in Latin America,* Center for International Education and Research in Accounting, Urbana, Illinois, 1968, p. 4.

[44] Robert E. Seiler, "Accounting, Information Systems, and Underdeveloped Nations," *The Accounting Review,* October 1966, p. 653.

On the brighter side of public management in Latin America, there has been a trend in the countries, spurred by the Alliance for Progress, to simplify existing fiscal structures and increase tax-law enforcement efficiency. The U.S. Internal Revenue Service has sent teams of tax advisers to aid the local authorities in several countries. Also there has been considerable assistance furnished by the Inter-American Development Bank and other public and private financial institutions.[45]

Because inflation is a serious burden to improving economic planning in South America, it has been necessary for most countries to establish procedures for revaluing properties in terms of current monetary values. Revaluation systems are now in force in Argentina, Brazil, Chile, and Uruguay. Peru has recently established a partial revaluation system relating to equipment.[46]

It should also be noted that considerable tax reform legislation has been going on in recent years. Changes have ranged from the completely revised and restated income tax codes of Brazil (in 1966) and Venezuela (in 1967) to important structural changes in Chile and Columbia and to lesser revisions in the laws of Peru and Argentina.[47]

Public planning and optimal allocation of resources in lesser developed countries become a difficult task of proportioning and interbalancing investment and consumption, production and distribution, exports and imports, and also interlarding economic considerations with needed cultural and spiritual considerations.

The progress made by most South American countries in getting their economic planning and development machinery harmonized and in high gear is harbinger of new hopes and promise for this segment of the world.

SELECTED OBSERVATIONS ON THE DECISION FACILITATING ROLE OF ACCOUNTING

The role of accounting during the past two decades in facilitating the allocation-of-resources decisions in the Western World has been widely publicized. In the United States intensive efforts have been made to make accounting in the public sector fulfill its role as a service to management. As a matter of record, the President's Commission on Budget Concepts commended this trend in its October 1967 report, comment-

[45] Michael P. Sampson, loc. cit., pp. 23–24. The success of tax enforcement programs is evidenced by these increases in tax collections during the 1961–65 year: Brazil, 39 percent; Chile, 31 percent; and Peru, 29 percent.

[46] Ibid., p. 26.

[47] Ibid., p. 35.

ing in part: "[in view of] the importance of program costs as an important tool for program management and for agency budget formulation and execution, the development of modern accounting systems makes it possible to adopt a much better method of measuring and reporting Government expenditures than was previously possible."[48]

In the Soviet Union the economic planning reforms about which we have discoursed earlier have set in motion serious reexaminations of the role of cost accounting, in particular, in aiding Soviet planners. Professor Y. V. Novozhilov, one of the chief architects of the new economic conceptualization, says that improving and coordinating cost accounting with economic planning will be of inestimable value to Soviet leaders in (1) making the choice of the best projects for commitment of resources and (2) assisting in production planning, product pricing, and evaluation of performance of enterprise and project managers.[49] It is noted by two Americans, professors Mills and Brown, that although cost accounting is all important in the Soviet's scheme of prices and costs, there are significant defects in Soviet accounting for depreciation and allocation of indirect costs to projects.[50] They further point out that if accounting is to be useful to the various levels of Soviet planners under the new economic planning philosophy, then considerable improvements in accounting systems design and operation will be necessary to support: (1) Preparation and reviews at appropriate management levels of both fixed and flexible budgets, and (2) better cost accounting and reporting by cost and responsibility centers, by units of production, by processes, and by projects.[51]

Managerial accounting can and does have its finest hours in supporting economic planning in the developing nations. Relevant to our earlier discussion of public planning in South America, we are informed by Professor Elliot that management-type accounting, even in its embryonic stages in some countries, is most useful to government in: (1) Origination, evaluation, and revision of national economic plans (budgeting, cost accounting, cash flow analysis, forecasting are all accounting-type contributions which are significant to the planning process), (2) national income accounts construction and reporting, (3) im-

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[48] *Joint Financial Management Improvement Program — 20th Annual Report,* U.S. Government Printing Office, Washington, 1969, p. 4.

[49] *Soviet Economic Performance, 1966–67,* loc. cit., pp. 212–14.

[50] Robert H. Mills and Abbot L. Brown, "Soviet Economic Developments and Accounting," *The Journal of Accountancy,* June 1966, pp. 41–44.

[51] Ibid., p. 46.

proving the construction and reporting aspects of tax systems, and (4) constructing performance standards data, thus facilitating audit and other evaluation of performance by various agencies and programs.[52]

Although there is a marked increase in the rise of management accounting and the participation of professional accountants in the planning of developing nations, there are some bothersome areas that need added attention. One of these areas of needed improvement is that of development within the affected countries of uniform, qualitative educational systems for turning out competent accountants.[53] Another problem area is that of obtaining sufficient cross-cultural understanding, communication, and cooperation among the accountants of a developing nation and those of assisting nations like the United States, Great Britain, et al. Of critical importance in this regard is the need for a common understanding of the role of accounting in a society, the assumptions upon which economic activity rests, the validity and usefulness of common methods of measuring economic activity, and the like.[54]

SOME NOTIONS ABOUT AUDIT SURVEILLANCE AND EVALUATION

E. L. Normanton, author of perhaps the most recent definitive book on international auditing in governments, refers to auditing as an inescapable response to the need for continuing assessment or public accountability by governments.[55] The need and the response have been accepted as articles of faith in most of the countries of the world.

In the United States, it is the view of most knowledgeable students of government that internal auditing has become an increasingly large and important factor in facilitating planning and control by federal agencies. It is also well established that the General Accounting Office (GAO), in performing its overview responsibilities for the Congress of the United States, is continually broadening the scope and depth of its review of the activities of the Executive Branch. Exemplary of the increasing participation by the GAO in *management efficiency* type audits is its recent completion of a comprehensive review of the poverty programs authorized by the Economic Opportunity Act of 1964.

[52] *Edward L. Elliot,* loc. cit., p. 183.

[53] Ibid., p. 179.

[54] Many writers have stressed these points. However, refer especially to: Garnett F. Beazley, Jr., "An International Implication for Accounting," *The International Journal of Accounting,* Spring 1968, pp. 4–9; and Washington Sycip, "Professional Practice in Developing Economics," *The Journal of Accountany,* January 1967, pp. 41–45.

[55] E. L. Normanton, *The Accountability and Audit of Governments,* Frederick A. Praeger, New York, 1966, p. 1.

The GAO's March 1969 report to Congress as a result of the review responded to that body's request that the GAO determine: (1) the efficiency of the administration of programs conducted under the Economic Opportunity Act, and (2) the extent to which the programs achieve the objectives of the enabling Act.[56]

Very little of consequence can be found either in the available Soviet literature or in the Western literature about the role of auditing in the decision evaluation process in the USSR. Perhaps we can surmise, in comparable fashion to Professor Robert W. Campbell comments regarding Soviet accounting, that the auditing function is a sacrificial lamb on the altar of Marx-Lenin doctrine. Professor Campbell notes that the Marxist bias that value is created only by labor, hence that costs and value are mere expost summations of expenditures for labor, is itself the main source of trouble underlying all stages of Soviet planning and control.[57]

Author Normanton, referred to previously and himself a Briton, is quite critical of the way in which the audit function is employed in Great Britain. He states that the post of Comptroller and Auditor General, together with related staff in the Exchequer and Audit Department, established by Lord William E. Gladstone in 1866, has not changed in any fundamental respect during the approximate one hundred years of existence of the audit function in Britain. Additionally, he is caustic about: (1) the relatively low educational and experience requirements used as standards for selection of auditors, and (2) the excessive attention by auditors to the minutiae of accounts. Normanton makes rather pointed reference to the need for Britain to produce real reforms in the field of accountability and audit similar to those in the United States in 1921, 1945, and 1950 and those in France in 1946–48.[58]

Our review of the literature in respect to use of the auditing function in public administration in South America leads us to believe that this evaluative instrument has a very low effectiveness yield in this part of the world. Most of the current writing about financial management in the public sector in the southern continent stress the great needs to significantly improve the education, training, and testing mechanisms for obtaining qualified auditors, and for the auditors' associations in the Latin countries to adopt sound accounting principles and auditing

[56] *GAO Newsletter,* April 15, 1969, p. 1.
[57] Robert W. Campbell, *Accounting in Soviet Planning and Management,* Harvard University Press, Cambridge, Massachusetts, 1963, pp. 255–57.
[58] E. L. Normanton, loc. cit., pp. 410, 422, 425.

standards, and to establish the machinery to ensure that the principles and standards are complied with. A few years ago, the *Journal of Accountancy* editors pointed cheerfully to action by the Mexican Institute (Instituto Mexicano de Contadores Públicos) of Public Accountants in publishing a booklet on *Auditing Standards and Procedures,* patterned after the works of the American Institute of CPA's.[59] Hopefully, in the view of American officials, pioneer efforts in Latin America like the one cited will accelerate very swiftly and bring auditing into an acceptable and highly beneficial role of contributing to economic planning and development by the various governments.

CONCLUSIONS AND EXHORTATIONS

Perhaps second in importance only to the problem of achieving a just and lasting peace is the problem of bringing the vast, unwieldy machineries of governments the world-over into some kind of timely and constructive response to the major needs of the universal people. There is a notion aloft that organized public management is the best way to allocate resources to meet those needs of the people which cannot be satisfied adequately and economically through the free and open operations of the market place.

In trying to assess the progress made in improving public management we could perhaps follow the admonition of James Thurber to "better ask some of the questions than to try to know all the answers." Consequently, we ask:

1. Will Planning-Programming-Budgeting (PPB) blossom first in one country and another, and then fade like other so-called "management fads" because of failure to synchronize it with the other essentials of planning and performing?
2. Is the Soviet experimentation with decentralized planning and with market-oriented decisions and techniques likely to become a permanent way of economic life in the Soviet Union? Will the changes in direction confirm the alleged latter-day cry of Karl Marx that "I am not a Marxist"?
3. Will, in fact, the sun set on the tradition of British innovativeness and enterpreneurship?
4. Can the Latins (South American version) demonstrate that their early momentum will ensure steady progress in economic planning and development?

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[59] "Auditing in Latin America," *The Journal of Accountancy,* November 1965, pp. 34–35.

The writer wishes he could either peer into the minds of the international leaders and confide in you what miracles they would wrought, or construct the infallible, normative planning model which no self-respecting nation could reject. Rather than valor, he has opted for a more discretionary commentary on some innovations here and some refinements there by governments in their efforts to make public programs and activities yield the best economic and social fruits for their people.

In thinking broadly about achievements in the public realm we should be reminded of the statement of James A. Garfield, twentieth President of the United States, that "All representative governments are managed by the combined wisdom and folly of the people." In this sense, we must be compelled to the long view that on balance there is persuasive evidence of significant progress in the universal public sector in achieving better management of resources, rendering more and better services, and, above all in bridging the gulf which often separates little citizens from the big administrators and staff in the governmental bureaucracies.

The Valuation of National Capital and the Development of Accounting Theory

SHAWKI M. FARAG*

INTRODUCTION

Variables are factors which can appear in a problem to represent different objects. The set of all objects which a variable is permitted to represent is called the domain of the variable, and any object in the domain of the variable is called a value of the variable. Economists as well as accountants differentiate between stock variables and flow variables. A stock variable has no time dimension, while a flow variable does. The value of a flow, therefore, depends on the period of measurement, and consequently it must be stated in units of time. On the other hand, the value of a stock variable should be dated, but the date is not a unit of measurement.

In business accounting, income, whether positive or negative (*i.e.*, loss), is a flow variable with a domain which may range from minus infinity to plus infinity, and the income statement is viewed as a measure of flows. Assets are stock variables which always take positive values, while liabilities are stock variables with negative values only. The balance sheet is a statement of these assets and liabilities at a given time.

In macroaccounting, on the other hand, the variables which constitute its subject matter are of the two basic kinds. Flow variables such as income, output, consumption, and investment are quantified and analyzed by the national income and product accounts; stock variables are covered by the sectoral and national balance sheets.

To note the close analogy between the evolution of the business balance sheet and the national balance sheet is revealing. Until the 1930's,

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business accountants gave prime importance to the balance sheet rather than the income statement. Then the emphasis was shifted to the income statement of the enterprise since it expresses the earning power, and the earning power concept was viewed as having more financial significance than the solvency position. More recently, however, a revival of interest in the balance sheet has been gaining momentum.

National balance sheets followed the same pattern. Until the 1930's, the few and scattered works on macroaccounting were more concerned with stocks than flows. The Keynesian Theory, which provided the mold for present day macroaccounting, has little place for balance sheets and deals almost entirely with flows. Consequently, in the tremendous upsurge of interest that has followed the introduction of national accounting, work on the national capital has been left far behind. It took some time, though, for economic theories to advance beyond the original Keynesian model in directions which require consideration of balance sheet variables. Growth theory and work on econometric models, particularly on the consumption function, are perhaps the two best examples. National balance sheets, however, remain in the domain of private research and investigations and have not yet reached the stage of being an integral part of the official periodic reporting system of any country.

A generalized balance sheet, applicable to any sector in the economy, can be prepared following the equation: financial assets + real assets = liabilities + net worth. The sectoring of the economy must naturally follow legal forms of organization because only legal entities may have assets, liabilities, and net worth. If all sector balance sheets for the entire economy are consolidated into one, the total of liabilities would conceptually equal the total of financial assets. The net worth of the economy as a unit will be equal to the value of all the real assets in the economy.

The purpose of this paper is to examine the concept of national capital, its uses, and some of the problems associated with its valuation, and to conclude by advocating the proposition that accounting research in capital and its valuation should be broadened to cover the macroaggregates, since these aggregates are basically the summation of the microvariables. Such a proposition would also imply the need to formulate accounting theory in a more abstract nature to represent a broad base from which business, as well as macroaccounting, can be derived.

THE MEANING AND MAIN USES OF A MEASURE OF NATIONAL CAPITAL

The concept of capital is generally given one of two alternative meanings: financial or real capital. Financial capital comprises the

value of all assets belonging to an economic unit including nonreproducible assets, such as land and natural resources; reproducible assets, such as machinery and buildings; and intangible assets, such as patent rights, good will, and trademarks. These assets are valuable because they are scarce and this concept represents the command over scarce resources in the financial sense by an economic unit. Such an economic unit could be an individual, a business enterprise, a group of organizations or the nation as a whole. Obviously this is the basic concept of capital in business accounting, and it is the underlying concept in the preparation of national balance sheets.[1]

Real capital, on the other hand, is viewed as a factor of production, on of the three major factors — land, labor, and capital — distinguished in economic theory. In this sense, capital consists of physical objects, usually called reproducible assets, which have been produced by the economic system and which are, in their turn, used for the production of other commodities. Real capital, therefore, is a social concept which is concerned with the "produced means of production" valuable to a society. It can be applied, however, to an industry or a firm and in such a case it will refer to the physical assets of the unit other than land and natural resources.[2]

A review of the literature of capital theory[3] reveals that there are three alternative methods for the measurement of real capital. First, the Walrasion method of presenting a physical inventory of all capital goods in an economy as an integral component of the data of that economy. This method then calls for a complete census of capital goods, similar to a population census, which will provide detailed data on the composition, capacity, and durability of the capital stock of an economy. The second measure of real capital, called "the period of investment," is derived from the Austrian theory of capital. This theory considers real capital as consisting of concrete capital goods which enter the production process, combine with nonaugmentable (permanent) factors, undergo physical change, and emerge from that process after a calculable period of time in the form of consumable goods. The Austrian theory focuses upon the time span between the entrance of the

[1] T. Barna, "Alternative Methods of Measuring Capital," *The Measurement of National Wealth,* Income and Wealth Series VIII, by Raymond Goldsmith and Christopher Saunder, eds. (London: Bowes and Bowes, 1959), p. 35.
[2] Ibid.
[3] For an excellent survey see: Robert E. Kuenne, *The Theory of General Economic Equilibrium* (Princeton, New Jersey: Princeton University Press, 1963), pp. 196–287.

capital goods in the production process and their emergence in the form of consumer goods, and attempts to measure its length and to find in that length for the economy as a whole, a meaningful concept with which to measure the capital stock of a society. Finally, the third method for the measurement of real capital considers it as a fund of value, either of the potential value of the output produced by the capital stock or of the cost of production of the capital stock itself. On purely theoretical grounds it is possible, as Samuelson[4] has done, to prove the equivalence between capital's reproduction cost and the present discounted values of its future output.

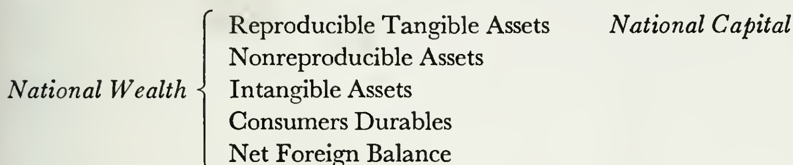
The measurement of real capital by means of a census or as "the average period of investment," aside from their theoretical and practical limitations are beyond the scope of the national balance sheet. The measurement of real capital in value terms, however, permits its inclusion in the balance sheet. It becomes necessary then to differentiate between national capital and national wealth. National wealth is defined as the summation of the assets remaining in the consolidation of the balance sheets of all economic units within the national boundaries. This concept, then, includes nonreproducible, tangible assets such as land and subsoil assets; reproducible, fixed and moveable tangible assets such as structures, equipment, and inventories; and the excess of foreign assets over foreign holdings of domestic claims, equities and tangible assets. Some economists advocate the inclusion of human capital as a component of national wealth. However, realizing that man should not be subjected to monetary valuation, attempts have been made to assign a value on those attributes of people that are created by investments in human capital, *e.g.*, expenditures on health and education.[5] A different view contends[6] that a single monetary measure of educational stock is not very meaningful and that it is more useful to advocate the development of statistics of educational stocks and flows in physical terms — or the introduction of demographic accounting — as an integral part of the macroaccounting framework, than to attempt to value human capital. The stock of national capital, on the other hand, is defined to include only reproducible tangible assets. Therefore, national capital

[4] Paul A. Samuelson, "The Evaluation of Social Income: Capital Formation and Wealth," *The Theory of Capital* by F. A. Lutz and D. C. Hauge, eds. (London: Macmillan & Co. Ltd., 1961), p. 42.

[5] M. Blaug, ed., *The Economics of Education I.* (Baltimore, Maryland: Penguin Books Inc., 1968), pp. 11–134.

[6] Dudley Seers and Richard Jolly, "The Treatment of Education in National Accounting," *The Review of Income and Wealth,* XII (September 1966), 195–209.

may be viewed as a subset of national wealth, as the following diagram shows.



In general, the principal use of all economic and accounting measurements is as a basis for analyses which increase our knowledge of the economy in order to better adapt to economic change, or to guide the economy through policies appropriate for attainment of given objectives. In recent years there has been a growing interest in obtaining and using estimates of the stock of national wealth and capital.[7] Such data provide a natural complement to the income and product flows and they have been widely applied in studies of productivity, in the analysis of the market for both capital and consumer goods, in financial analysis, in studies of aggregate economic structure, and in the analysis of and planning for economic growth and development. This last use was given special importance in the 1960's, a decade which has come to be known as the development decade, and therefore it deserves some elaboration.

The general rate of development of an economy is always limited by the scarcity of productive factors. If any one scarce factor associated with underdevelopment should be identified, it would be capital. Of course, it would be an oversimplification to regard economic development as a matter of capital accumulation alone. Other things are needed in addition, such as entrepreneurship and the training of workers and public administrators. Yet these are seldom possible without some increase in the stock of capital. Therefore, capital accumulation may well be regarded as the core process by which all other aspects of growth are made possible. Professor Rostow, for example, explicitly specifies

[7] See for example:

Raymond Goldsmith and Christopher Saunders, eds., *The Measurement of National Wealth,* Income and Wealth, Series VIII (London: Bowes & Bowes, 1959).

Raymond Goldsmith, *The National Wealth of the United States in the Postwar Period* (Princeton, New Jersey: Princeton University Press, 1962).

National Bureau of Economic Research, *Measuring the Nation's Wealth* (New York: National Bureau of Economic Research, 1964).

John Kendrick, "Problems of a Census of National Wealth," *The Review of Income and Wealth,* XII (March 1966), 95–133.

Jack Revell, "The National Balance Sheet of the United Kingdom," *The Review of Income and Wealth,* XII (December 1966), 281–310.

a rise in the rate of productive investment to over 10 percent of national income as a necessary requirement for a country's take-off stage.[8]

The relationship between national capital and national output has been the subject of intensive study and investigations. The ratio of capital stock to total output, "the average capital output," has been calculated for many countries, and the three chief tendencies which have been observed are: (1) a comparatively far-reaching stability of these ratios over recent decades, (2) a certain similarity in the levels of these ratios in countries at the same stage of economic development, and (3) a definite improvement in these ratios over long periods in highly developed countries.

In calculating capital requirements for a development plan, what is needed is the marginal capital output ratio, *i.e.*, the amount of capital necessary to increase the national output. If we want to increase output by $20, and estimate that the marginal capital output ratio is 4, then the required addition to the capital stock to be provided by new investments is $80. Since an overall capital output will be affected by the changing composition of output and investment among the several sectors, it is essential to analyze the capital output relationships at the sectoral level and more preferably at the industry level.

THE VALUATION OF NATIONAL CAPITAL

In computations of the value of the stock of real capital there are two vital questions which must be decided. The first is the question of defining the real objects one wants to include under the coverage of national capital. The second, and far more difficult, problem consists of selecting a system of weights ("prices") which can be used in the aggregation of highly divergent real objects on the basis of a common unit of measurement. Reproducible tangible assets as an object of aggregation and valuation possesses several characteristics which can be used in the aggregation of highly divergent real objects on the basis of a common unit of measurement. Reproducible tangible assets as an object of aggregation and valuation possess several characteristics which make its measurement quite a tedious exercise. Some of these characteristics are:

1. Longevity, so that aggregation involves times of different vintage, bought at different prices and produced under different techological conditions.

[8] W. W. Rostow, *The Stages of Economic Growth* (Cambridge, Massachusetts: Cambridge University Press, 1960).

2. Impermanency, hence the depreciation and replacement problems.
3. Technological change, both in its production and in the quality of the finished product. The second attribute is particularly important because new capital is a major source of technological change in industries where it is an input.
4. Future income, a characteristic which affects both its cost of production and, of course, its present value.
5. A limited secondhand market (most examples usually consist of automobiles, trucks, and farm machinery) with an unhealthy fondness for brand new items. Evaluation of the existing stock of capital is, therefore, of limited use.

There are two basic approaches to the valuation of reproducible tangible assets — the prospective approach and the retrospective approach. A third approach called "the perpetual inventory method" was developed by Professor Goldsmith to overcome some of the empirical problems associated with the two basic approaches.[9]

THE PROSPECTIVE APPROACH

Under the prospective approach the value of the capital items should reflect their future earning capacity. Therefore, the value of an asset at any point in time will be uniquely determined as consisting of the sum of the discounted income stream produced by that asset, if we assume the existence of certain ideal conditions, so that: (1) there is a market rate of interest at which all can borrow or lend in unlimited amounts; (2) all incomes are clearly imputable to the various assets and perfectly certain; (3) all decision makers behave rationally; and (4) the markets are perfect and frictionless.

In the real world, the value of an asset is not so unambiguously determined, and thus the capitalization method remains more of a conceptual apparatus and a way of thinking of assets and their future services than of a practical method of valuation. This is due to a multiplicity of aberrations from ideal conditions. In the first place, there is always the problem of uncertainty in respect to the future receipts or the interest rate. Waiving this or assessing the possibility of modifying the estimates by applying probability multiples, there is still the problem of imputation

[9] Raymond W. Goldsmith, "A Perpetual Inventory of National Wealth," National Bureau of Economic Research, Conference on Research in Income and Wealth, *Studies in Income and Wealth,* XIV (New York: National Bureau of Economic Research, 1950), 5–73.

of income. In the absence of perfect divisibility, there may be difficulty in separation of income attributable to a particular asset. Thomas gives an illuminating example when he states that the ". . . discounted services approach resembles an attempt to value the services of an individual gem in a watch. The gem can be valued as a function of its historical cost. But the value of its services cannot be separated from the value of the services provided by the whole watch without the separation being very arbitrary."[10]

The inadequacy of the capitalization method for the valuation of many types of assets under the prospective approach leads to the reliance on the market prices of the capital assets since these can be taken as approximate expressions of their earning capacity. Market pricing, however, encounters a number of conceptual and practical difficulties. First, only a fraction, and usually but a small one, of the total stock of any type of asset is actually traded within a period close to the balance sheet date. The market valuation of assets must, therefore, as a rule proceed on the assumption that the price established in these actual transactions is representative of all items of the same type in existence at the balance sheet date. This presumption is generally reasonable for many important categories of assets. Where actual transactions are shown not to be a random sample of the class of assets they are intended to represent, either because the transactions are of a special character or the assets actually should differ in composition, age, or condition from the stock of the same class, appropriate adjustments must be made. Second, market prices do not exist, or at least cannot be ascertained, for certain types of assets either because these assets are never sold, or because actual transactions are too rare or the assets are not sufficiently homogeneous to justify the assumption of randomness. Finally, actual market prices may not coincide with the price that would exist in a perfect market. As in other cases of market imperfection, there is usually no practical way of eliminating them, even if it were regarded as theoretically desirable to do so.

THE RETROSPECTIVE APPROACH

This approach calls for the use of the costs of production of the various capital assets as a basis for valuation. The question arises then of which cost of production — historical cost or replacement cost — to

[10] Arthur L. Thomas, "Precision and Discounted Services," *The Accounting Review*, XXXVII (January 1962), 71.

use. The use of historical cost would satisfy conditions of formal, but not substantive, additivity. This is because historical cost would confine different values for economically identical assets and would generally produce noncomparable values for different types of assets and for the wealth of different sectors, depending on the time of acquisition of the assets and on their price movements between acquisition and balance sheet dates. Therefore, replacement cost is preferable to historical cost, in principle, for the valuation of the capital assets.

Replacement costs of the various assets will be in terms of the current cost of the productive resources incorporated in the specific asset in use, or the current cost to replace the service rendered by the asset. The general method followed in estimating replacement cost is first to estimate the cost of replacement with brand new assets and, then to make an allowance for age, wear, tear, and obsolescence. The difficulty is that replacement, if it were to take place, would not be by identical units. As a result of inventions, capital undergoes an almost continuous improvement, and hardly any two assets produced at different times are identical. The expert has to find a modern substitute for the existing asset and has to take account of difference in the profitability of the two types of assets. Lastly, when he takes age into account, he has to look forward and estimate the likely future life of the asset, rather than look into the past to determine expired life. Naturally, different experts may arrive at different results. For practical purposes Moonitz indicates as "a crude substitute for specific (and expensive) studies of the replacement or reproduction costs of fixed assets, indices of construction costs might well be employed to bring the recorded investment up to date."[11]

The comparison of the value of capital, computed according to the prospective or the retrospective approaches, between two points of time, requires splitting changes in its value into changes in price and changes in volume. This is the general index-number problem, but in a very acute form because of the great heterogeneity of capital assets. There are two main alternative measures of the value of capital — capital conceived in terms of effort to produce it or in terms of efficiency. If conceived in the former sense, it ought to be deflated by a cost index, and if it is conceived in the latter sense, it ought to be deflated by output index. Several attempts have been made, however, to deflate the value of capital by a price index for capital goods.

[11] Maurice Moonitz, "The Valuation of Business Capital: An Accounting Analysis," *The American Economic Review,* XLI (May 1951), 164–65.

THE PERPETUAL INVENTORY METHOD

This method is based on the assumption that the market value of reproducible assets is equal to or approximates their replacement cost. In that case, the current value can be determined by adjusting the original cost of classes of reproducible assets (reflected in past capital expenditures on them as given, *e.g.,* in national income accounts) for changes in the cost of construction and the prices of equipment and for capital consumption. Since 1950, this method has been used in an increasing extent, and it is particularly important for types of tangible assets for which no market value exists, *e.g.,* government structures, military equipment, and large private nonresidential structures.

The method appears attractive and the one which could be most easily followed in a number of countries. However, the lengths of life of assets which are used in published estimates are based on conventions and not on empirical observation, and this may be a source of important errors in the results. It also can produce erroneous gross stock estimates to the extent that past investment estimates were erroneous.

The problems of the valuation of national capital and the preparation of sectoral and national balance sheets are, at a certain level of abstraction, nothing more than an extension of the problems of valuation on the micro level. Much of the current business accounting literature has been devoted to problems which are vital to macroaccounting, *e.g.,* the use of market prices, or approximations of it, with or versus historical cost; the use of LIFO, which is preferable from the income statement's as well as from the national income account's point of view; or LIFO, which conforms more to the needs of the balance sheets (business as well as national) for the valuation of inventories. I submit that accounting research in capital and its valuation should be broadened to cover the macro aspects as well as the micro ones. Such a proposition will not only enrich accounting research, but also will increase the usefulness of accounting information.

The interrelationships between business accounting and macroaccounting's theory, methods, and problems point to the need for the development of an abstract accounting theory from which the various types of business and macroaccounting systems can be derived. Such a theory can be developed by the use of the axiomatic method. An examination of this method will be the subject of the rest of this paper.

THE NATURE OF ACCOUNTING THEORY

Accounting theory may be defined as the "organized body of knowledge which deals with order, reasons, relationships, objectives, and

methods involved in the practice of accounting."[12] Three essential functions of accounting theory may be distinguished. The first is to summarize an infinite number of accounting notions and ideas into a finite set of principles. The second function of accounting theory is to predict or prescribe any accounting principle which could possibly come to be needed under any specifiable conditions. This is in contrast to the summarizing function, which is usually confined to what has already been established. Finally, accounting theory should determine why an acounting practice known to have taken place actually did so, why an accounting principle known to be valid in its proper realm of phenomena is actually valid there. Professors Littleton and Zimmerman, two pioneering and prominent accounting theorists, grant monopoly to this last function of accounting theory.[13]

Several approaches to the development of accounting theory have been suggested. These include the deductive reasoning and the axiomatic approaches, the inductive approaches, the pragmatic approach, the ethical approach, the communication theory approach, the problem-oriented approach, and the sociological approach.[14] "None of these approaches or methods, however, is independent of the others. Generally more than one approach is used either explicitly in or implicitly in the development of accounting principles."[15]

Any attempt to apply the scientific approach to the development of accounting theory may be divided into three steps: (1) induction, (2) deduction, and (3) interpretation and verification. Induction is the step which carries the accountant from the domain of accounting practice to the formation of theories. These theories may be very close to facts in that they simply summarize observed phenomena, or they may be of an abstract nature. Once a theory is formulated, the tools of logic and mathematics should be applied to deduce consequences from it. It is due to the availability of the second deductive step that the accountant can discover a number of consequences of his theories which may not have been immediately obvious to him. Finally, once a number of plausible consequences have been deduced from the theory, they must

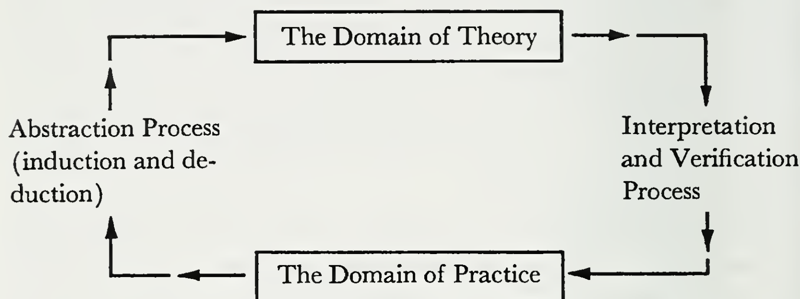
[12] Frank J. Inke, "Relationships in Accounting Theory," *The Accounting Review,* XLI (April 1966), 318.

[13] A. C. Littleton and V. K. Zimmerman, *Accounting Theory: Continuity and Change* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1962), p. 10.

[14] For an excellent review of the application of these approaches to the development of accounting theory, see: Maurice Moonitz, *The Basic Postulates of Accounting,* Accounting Research Study No. 1 (New York: American Institute of CPAs, 1961), pp. 1–7; and Eldon S. Hendriksen, *Accounting Theory* (Homewood, Illinois: Richard D. Irwin, Inc., 1965), pp. 1–14.

[15] Hendriksen, p. 3.

be interpreted and verified. In some cases the newly deduced theorems may correspond to events already observed, whereas in other instances new observations will be required to test the theory suggestions. In the former case one speaks of the theory as having served to explain known facts, in the latter we have succeeded in predicting novel occurrences. This may be explained by the following diagram.



The present state of accounting theory requires that "relatively heavy reliance must be placed on deductive reasoning in the development of accounting postulates and principles."[16] This is natural since the ideal of any science cannot be a system in which every proposition is proved and every term defined, but is rather one in which a minimum number of propositions suffice for the deduction of all the rest, and a minimum number of terms suffice for the definition of all the others. Therefore, the ideal of accounting knowledge may be described as a deductive system.

The axiomatic method can provide a very useful framework for the deductive approach to accounting theory. It is one of the oldest methods of analysis known and has been used, successfully, over two thousand years in the field of mathematics. Therefore, it may be beneficial to investigate what is meant by the axiomatic method in mathematics.

THE AXIOMATIC METHOD IN MATHEMATICS

The major book on geometry of the classical Greek era is Euclid's *Elements,* a work on plane and solid geometry. Written about 300 B.C., it contains the best results produced by dozens of fine mathematicians during the period from 600 to 300 B.C. The work of Thales, the Pythagoreans, Hippias, Hippocrates, Eudoxus, members of Plato's Academy, and many others furnished the material which Euclid organized. One of the greatest achievements of Euclid's book was the creation of the pos-

[16] Moonitz, p. 6.

tulational form of thinking. In order to establish a statement in a deductive system, one must show that the statement is a necessary logical consequence of some previously established statements. These, in their turn, must be established from still more previously established statements, and so on. Since the chain cannot be continued backward indefinitely, one must, at the start, accept some finite body of statements without proof, or else commit the unpardonable sin of circularity by deducing Statement A from Statement B and then later B from A. These initially assumed statements are called the postulates, or axioms, of the discourse, and all other statements of the discourse must be logically implied by them. When the statements of a discourse are so arranged, the discourse is said to be presented in postulational or axiomatic form.[17]

The early Greeks made a distinction between "postulates" and "axioms." The latter were probably considered as general truths common to all studies, whereas the former were thought of as pertaining to the special study at hand. Thus, one finds in Aristotle (384–321 B.C.) the following viewpoint:[18]

> Every demonstrative science . . . must start from indemonstrable principles; otherwise, the steps of demonstration would be endless. Of these indemonstrable principles some are (a) common to all sciences, others are (b) particular, or peculiar to the particular science; (a) the common principles are the axioms, most commonly illustrated by the axiom that, if equals be subtracted from equals, the remainders are equal. In (b) . . . we have first the genus or subject-matter, the existence of which must be assumed. . . .

Euclid used five axioms or common notions and five geometric postulates to derive 465 propositions. It was largely the modern search for a logically acceptable postulate set for Euclidean geometry and the revelation furnished by the discovery of equally consistent non-Euclidean geometries that led to the development of axiomities, or the study of postulate sets and their properties. Moreover, in modern mathematics no distinction is made between the words *axiom* and *postulate*; the words are considered synonymous.[19]

The application of the axiomatic method to any branch of mathematics consists of a series of steps. The first of these is the introduction of symbols (including, possibly, words) as names for those notions which are judged to be basic for the theory. These are called the primitive symbols,

[17] Howard Eves, *An Introduction to the History of Mathematics* (revised edition, New York: Holt, Rinehart and Winston, 1964), pp. 121–28.
[18] T. L. Heath, *The Thirteen Books of Euclid's Elements,* Volume I (2nd ed., Cambridge, England: The University Press, 1926), p. 119.
[19] Eves, p. 128.

or terms, of the axiomatic theory. The only further symbols, or terms, which are admitted are defined symbols, that is, expressions whose meanings are explicitly stated in terms of the primitive symbols. The next step is the translation of those statements that were singled out as expressing fundamental properties of the basic notions of the theory into the language which can be constructed from just the primitive and defined terms. Such statements or assumptions or axioms or postulates, as they are variously called, are employed in the framework of theory without being proved there. Finally, theorems are logically deduced from the postulates or axioms and they must contain our knowledge of the field and beyond this, hopefully, lead to new insights.[20]

The axiomatic system which the Italian mathematician Peano constructed for the theory of natural numbers may be presented here as a simple illustration of the axiomatic method. The system contains only three primitive terms — zero, number, and successor of — and five axioms which may be translated from their symbolic notation into natural language as: (1) zero is a number, (2) the successor of a number is a number, (3) different numbers do not have the same successor, (4) zero is not the successor of any number, (5) if a property belongs to zero and if, when it belongs to a given number, it belongs to the successor of that number, then it belongs to all numbers. Using the first two axioms the number one can be defined, then the number two, and so on. On this basis, the theorems of arithmetic can be deduced. However, the normal interpretations of the primitive terms is not the one which satisfies this set of axioms, since it does not determine unambiguously some one set of concrete propositions.[21]

Another example of an axiomatic system may be taken from the field of geometry. Here the system contains two primitive terms, *point* and *line,* and five axioms: (1) every line is a collection of points; (2) there exist at least two points; (3) if p and q are points, then there exists one and only one line containing p and q; (4) if L is a line, then there exists a point not on L; (5) If L is a line, and p is a point not on L, then there exists one and only one line containing p that is parallel to L. "These axioms would not by any means suffice as a basis for proof of all the theorems of plane geometry, but they will be sufficient to prove a certain number of the theorems in any organization of plane geometry."[22]

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[20] Robert R. Stoll, *Set Theory and Logic* (San Francisco: W. H. Freeman and Company, 1963), pp. 211–27.

[21] Robert Blanche: *Axiomatics,* G. B. Keene (trans.) (New York: The Free Press of Glencoe, 1962), pp. 31–32.

[22] Raymond L. Wilder, "The Axiomatic Method," *The World of Mathematics,* James R. Newman, ed. (New York: Simon and Schuster, 1956), III, p. 1652.

In the consideration of an axiomatic theory the notion of truth is relegated to possible applications of the theory. In any circumstance in which the axioms are accepted as true statements and the system of logic is accepted, then the theorems must be acepted as true statements since the theorems follow from the axioms by logic alone. Therefore, the formalized axiomatic system as such has no semantic meaning and can receive diverse interpretations. Moreover, it remains the responsibility of the potential user of an axiomatic theory to be concerned with the truth of the axioms of the theory.[23]

The main advantages of the axiomatic method may be enumerated as: (1) the order which it creates and the consequent intellectual mastery which it offers in any sphere to which it is applied; (2) the clarity which results from the logical analysis which is necessary for setting up an axiom system by making explicit the assumptions we are adopting and the symbols we require and why and where in the system we require them; (3) the possibility that such a systematic analysis may reveal unsuspected consequences in our existing assumptions and may guide the researcher in choosing the most profitable directions in which to exercise his talent; and (4) the possibility of eliminating the verbal controversies which result only from the inadequacies of natural languages.[24] These advantages may be summed up by stating "the axiomatic method is simply a superb technique for summarizing our knowledge in a given field and for finding further knowledge deductively. This involves inevitable logic — mathematical operations, sometimes of great complexity. If the state of axiomatization of an empirical field has been reached which is a state of some perfection, mathematics is indispensable."[25]

THE AXIOMATIC METHOD AND ACCOUNTING THEORY

Mattessich argues that one of the main criticisms of accounting is that "accounting theory has developed a body of knowledge which is of a dogmatic rather than scientific hypothetical character and which serves with satisfaction only purposes of a legalistic nature."[26] Thus, it may be

[23] J. M. Bochenski, *A Precis of Mathematical Logic,* trans. Otto Bird (Dordrecht, Holland: D. Reidel Publishing Company, 1959), pp. 26–29.

[24] Woodger, p. 15.

[25] Oskar Morgenstern, "Limits to the Uses of Mathematics in Economics," *Mathematics and the Social Sciences,* James C. Charlesworth, ed. (Philadelphia, Penn.: The American Academy of Political and Social Science, 1963), 24.

[26] Richard Mattessich, *Accounting and Analytical Methods* (Homewood, Illinois: Richard D. Irwin, Inc., 1964), p. 4.

argued that the axiomatic method may be useful in extracting the essence of accounting and creating a general foundation of accounting theory. Mattessich was the first to endeavor such a formulation of accounting theory,[27] and Aukrust made another pioneering attempt in the field of national accounting.[28]

The first step in the application of the axiomatic method to accounting theory is to collect all of the undefined terms. "This is no mean task; indeed, it requires a considerable depth of knowledge about a subject in order to be able to detect those terms which are primitive, or basic, so that they may be used in defining new terms." [29] The second step is to define certain terms in terms of the primitive terms. These definitions provide the meaning of special terminology. The third step is to develop the set of axioms or postulates. Finally, given the primitive terms, the definitions and axioms, a set of theorems can be deduced logically. Mattessich's system consisted of four primitive terms, seventeen definitions, three axioms and eight theorems.[30]

A theory which remains at the preaxiomatic state is called concrete, empirical, or intuitive; *i.e.,* it retains its connection with the knowledge which it organizes, and is not divorced either from meaning or from empirical truth. This is in contrast with the more abstract, formal, and logical character of an axiomatized theory. Accounting theory is still in the preaxiomatic stage. Moreover, in a social science, such as accounting, there is always a comparatively stable, tidy, clear part and a growing, untidy, controversial part. The axiomatic method will lend itself especially to that part of accounting where a clear understanding of the basic concepts has been reached. Therefore, a vast amount of preparatory exploration and thinking, much of it tentative and in parts, is required before accounting can be axiomatized.

By way of conclusion, it may be stated that the development of macroaccounting systems and the observation of basic likenesses in the central features and problems of business accounting and macroaccounting represent a stimulus for the creation of an axiomatic accounting theory which can serve as the common denominator of the two branches

[27] Ibid., pp. 437–65; Mattessich's first attempt to axiomatize accounting was published in 1957. See Mattessich, *Accounting Research,* VIII (October 1957), 328–55.

[28] Odd Aukrust, "An Axiomatic Approach to National Accounting: An Outline," *The Review of Income and Wealth,* XII (September 1966), 179–93.

[29] Milton H. Spencer, "Axiomatic Method and Accounting Science," *The Accounting Review,* XXXVIII (April 1963), 312.

[30] Mattessich, *Accounting Research,* VIII (October 1957), 340–47.

of accounting. In other words, accounting reseachers may distill out these common features of business accounting and social accounting and use them as a guide for defining an abstract axiomatic accounting theory. In this case, any one of the theories which the axiomatic theory is intended to formalize serves as a potential source of definitions and possible theorems of this axiomatic theory. An axiomatic theory which successfully formalizes only one branch of accounting is a source of insight into the nature of that theory since the axiomatic theory is developed without reference to meaning. Thus, an axiomatic accounting theory which formalizes each of several theories (business accounting, governmental accounting, macroaccounting) to some degree has the additional merit that it effects simplicity and efficiency. Since such an axiomatic theory has an interpretation in each of its parent theories (on a suitable assignment of meaning to its primitive terms), it produces simplicity because it tends to reduce the number of assumptions which have to be taken into account for particular theorems in any one of the parent theories. Efficiency is effected because a theorem of the axiomatic theory yields a theorem of each of the parent theories. Herein lies one of the principal virtues of taking the primitive terms of an axiomatic theory as undefined.

In addition to simplicity and efficiency, an abstract accounting theory carries the possibility of enriching and extending one of the parent theories by another. Moreover, there is the possibility of "cross-fertilization" insofar as methods of attack on problems are concerned. This could not be more true than in the area of valuation and balance sheet preparations.

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A Note from the Editor

This issue of *The International Journal of Accounting Education and Research* involves two rather special areas of emphasis. First, an English language statement of a unique viewpoint of accounting theory by Professor Erich E. Kosiol, a recognized international scholar, is presented. This article represents a "Zusamnenfassung" or synthesis by Professor Kosiol dealing with the axiomatic approach to his theoretical views and is an excerpt from his larger work, *The Pagatoric Theory of Income Determination,* which will be published as another title in the Center's monograph series.

The second area of emphasis of this issue lies in the varied geographical backgrounds used by the contributing authors. Holland, Germany, France, Sweden, and the entire European community furnish the perspective for the articles and deal with contemporary issues, such as financial statement disclosure requirements, as well as certain historical considerations. This variance in topics, both geographical and chronological, bespeaks the truly international dimensions of accountancy.

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An Axiomatic Approach to the Pagatoric Theory of Financial Income Determination

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The pagatoric theory of income determination attempts to describe all entries, transactions, items, and statements of the financial bookkeeping system in terms of *payments* by reducing the amounts to various types of receipts and disbursements. The expression *pagatoric* has a specific meaning, payment-related, and had its origin in the late Latin verb *pagare,* which means to pay. The same verb is still used today in Italian *(pagare)* and in Spanish *(pagar).* The French *payer* and the English *to pay* can also be traced back to this origin.

The pagatoric theory is a complete and self-contained system of financial income determination which includes an appropriate system of bookkeeping and accounts, a corresponding set of statements as derived from the closings of the accounts, and consistent valuation rules for all recorded postings and items. The theory is carefully grounded on the two principles of realization and acquisition value.

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Professor Kosiol is the author of many important books, monographs, and articles, several which have been translated into other languages. In recognition of his important scholarly contributions, he was awarded honorary doctorates by the University of Cologne and by the Hochschule fur Welthandel in Vienna, Austria. He has served as a visiting professor in Kobe University in Japan, the University of California at Berkeley, and as distinguished Miller Visiting Professor at the University of Illinois at Urbana-Champaign. This article is abstracted from a portion of his monograph, *The Pagatoric Theory of Income Determination,* which will be published by the Center.

The theory of pagatoric income determination which simultaneously is a semantic interpretation of the related accounting calculus, particularly suggests an axiomatic conceptual structure. There are other important axiomatic approaches to accounting systems. Richard Mattessich[1] developed a system of basic assumptions and definitions and an algebraic formulation of the foundations of accounting for micro- and macro-economics in general. Yuji Ijiri[2] deals only with the measurement problem and its axiomatic presentation in such a way that certain propositions of this theory, especially the axioms, are initiated as premises, and all other propositions, the theorems, are derived from them by logical deductive processes. In other words, an axiomatic system is a set of expressions which consists of two classes in such a way that the elements of the second class are obtained by the application of explicitly formulated rules to the elements of the first class. The result is an axiomatic theory in the form of an axiomatic system.

The axiomatic system has the significant advantage that it requires the exact and complete formulation of all of the system elements and their relationships. This enables the full cognition of all implications with the premises. Scientifically, axiomatization represents the highest degree of cognitive development of a theory by which the propositions receive an ultimate shape in form and matter through the application of the strictest presentation manner.

Axiomatic systems generally include terms, axioms, deduction rules, and theorems. *Terms* are also called the axiomatic constants or fixed names of the system. They are either *basic terms* (primitive or original), which are expressed without any definition, or *derived terms,* which are defined with the aid of basic terms. Defined terms represent finite sequences of basic terms and are called well-formed formulae because they follow fixed rules of definition. Permissible combinations are terms as well as well-formed propositions. All expressions of the system — sequences and combinations of terms — must follow stipulated formation rules in order to be well-formed formulae. The rules of definition and of formation may be explicitly formulated, or they may be tacitly presupposed as well-known rules of the chosen language.

Axioms and theorems are terms to represent asserted propositions, sentences, or laws of the system. *Axioms* are primary propositions not deduced in the system, that is, presupposed assumptions or postulates ac-

[1] Richard Mattessich, *Accounting and Analytical Methods* (Homewood, Illinois; Richard D. Irwin, Inc., 1964).

[2] Yuji Ijiri, "Axioms and Structures of Conventional Accounting Measurement," *The Accounting Review,* January 1965, pp. 36–53.

cepted as true without proof whereas *theorems* are secondary propositions (including lemmas and corollaries) derived from axioms by the rules of inference which indicate valid deduction methods. Every deductive system of reasoning must have a set of definitions and axioms as initial premises in order to prove theorems by them.

Four classes of elements of the pagatoric axiomatic system are listed:

1. *Definitions of terms and expressions* are axiomatic constants or well-formed formulae which represent the operational context of notations or the specific vocabulary of the system;
2. *Axioms* are a system of presupposed, but not defined, and not deduced, propositions providing a basis for inferences; and
3. *Deduction rules* are a form of computation or accounting rules, which are applied to defined terms and undefined axioms;
4. *Theorems* are logical results of derivation which are proved by a finite sequence of well-formed formulae each of which is either an axiom or inferred from earlier formulae in the system by one or more of the rules of inference (computation).

An axiomatic system needs an appropriate *language* in the form of a system of notations. If we add the well-defined axiomatic constants to the chosen basic language, we arrive at the axiomatic language of the system. It is not necessary to use an artificial language with mathematical or logical symbols. A natural language with verbal symbols can be readily applied.

The axiomatic system constructed here uses the scientific language of business economics. This method offers three advantages. First, we can dispense with the rules of both definition and formation for the basic language because these syntactical rules may be presupposed as accepted. Second, it is not required to state the undefined basic terms because they belong to the accepted terminology of business economics or natural languages. Correspondingly, definitions do not consider basic concepts, such as enterprise, economic good, production, and consumption. They are principally restricted to specific terms of accounting. Third, by using the professional language of business economics, the presentation is not only more understandable, but both the syntactic and semantic dimensions of the axiomatic system are simultaneously developed. The interpretation or meaning of the terms and formulae is not fixed by semantic rules but tacitly presupposed because the language used can be assumed to be generally understood. One of the essential features of this axiomatic process should be noted. The deduction of theorems must not use the semantic interpretation or sense

of the axiomatic symbols and verbal expressions, no matter which presentation form and language may be chosen. Each theorem is only logically implied. The semantic sense of the introduced terms and formulae does not disturb the strict validity of logical inference.

In general, axiomatic systems demand consistency, completeness, and independence. *Consistency* means that it is not possible to deduce the negation of a proposition together with this proposition and, therefore, principally to deduce any proposition. It is the first principle of logic since Aristotle; science is not possible with contradictions. *Completeness* purports that for every proposition of the axiomatic language either this proposition itself or its negation is a theorem of the system, that is, no proposition of the considered area is a valid theorem if it is not deducible. This means simultaneously that any added proposition that is not deducible in the system leads to contradictions.

Independence is given if no axiom of the system can be derived from the other axioms. Because it is difficult in the sciences to prove absolutely the completeness and independence of an axiomatic system, the crucial point is consistency, that is, that the system does not contain any contradictions.

The system of pagatoric income determination has been developed as a verbal-logical model in a larger work.[3] This formalized model has been further mathematically symbolized with respect to definitions and accounting rules by various kinds of symbols — vectors and matrices. The conceptual and computational ingredients of the system have already been formulated in precise terms of the scientific language of business economics. Therefore, it is only necessary to segregate the axiomatic elements and systematically to arrange them.

As discussed more comprehensively in another work[4] the development of the axiomatic structure of the pagatoric income determination system is in several stages, which successively show the partial systems and their differences and similarities. The first system stage comprises *movement accounting* of the subsystem of single-entry bookkeeping. The next stage develops the related *balance* or *stores accounting*. Third, *change accounting* is added. All three stages correspond with a specific financial statement and together represent the complete subsystem of single-entry bookkeeping. The fourth stage deals with the supplementing subsystem of *expense and revenue accounting*. The integration of

[3] Erich E. Kosiol, "The Pagatoric Theory of Income Determination" (Scheduled for publication by the Center for International Education and Research in Accounting, University of Illinois at Urbana-Champaign).
[4] Ibid.

all four stages results in a complete system of double-entry bookkeeping; it is constructed as a formal system of payments and reflects the determination of periodic income. Total income accounting is considered in movement accounting. The fifth and last stage serves the tangible goods-oriented interpretation of all statements.

The dominant goal of the pagatoric system is income determination. Hence, the basic element of the system is movement accounting. Expense and revenue accounting is the contra-system to movement accounting but has the same goal. The determination of stores (assets and equities) and the tangible interpretation of the formal system from the viewpoint of goods are only secondary goals compatibly related to the underlying figures. Another secondary goal, *fund flow and financial flow accounting* with causal and liquidity analysis, is included in movement accounting and is only a step of further classification, subdivision, grouping, matching, and segregation of the original pagatoric figures. Change accounting is related to movements as well as stores accounting.

1. THE AXIOMATIC STRUCTURE OF MOVEMENT ACCOUNTING

The following definitions of terms (axiomatic constants), axioms, accounting rules, and theorems refer not only to movement accounting but to some degree to the other system stages of the complete double-entry bookkeeping system also.

Definitions

D1 — Quantity (physical) scale of measurement. A quantity scale of measurement is a countable, additive, nonnegative, and unambiguous yardstick that assigns quantities to objects belonging to a class of objects or to its subclasses. The quantity is zero for the empty class or subclass. Two quantities of objects in the same class are equivalent and mutually substitutable, if they have the same physical scale measurement. Physical scales are ratio scales with an invariable zero-point.

D2 — Monetary (accounting) scale of measurement. The physical measure of any quantity of objects in a certain class selected as a basic class with a finite amount is an accounting measure. If money is chosen as a basic class, the accounting measure is also called the monetary measure. The measuring units are called monetary units. The allocation of monetary units to objects of noncash classes is called the *valuation* of these objects. A set of monetary units (a value) allocated to the quantity of a noncash object and divided by this quantity is called the price of the object. Therefore, the value of any quantity

of a noncash object is given by multiplication of this quantity by the pertaining price (value per quantity unit).

D3 — Payments. Payments are movements in monetary units. Subclasses of payments may be distinguished according to (1) the direction of the movement of the receipts and disbursements, (2) the accounting character of the cash-payments and accounting payments, and (3) the influence on income of payments affecting income and payments not affecting income. Payments are temporally related either to the total life of an enterprise or to a partial period of it.

D3.1 — Cash-payments. Cash-receipts and cash-disbursements are movements of objects of the basic class of money, cash-payments. They are temporally connected, either simultaneously or by a time interval before or after, with opposite movements of objects of the basic or other classes, or they are not accompanied by such movements at all. There are three subclasses of cash-payments — cash-payments affecting income, correlative payments, and compensation-payments.

D3.1.1 — Cash-payments affecting income. Cash-revenue-receipts and cash-expense-disbursements are cash-movements that are temporally connected, either simultaneously or by a time interval before or after, with movements of goods in other classes affecting income, or that are not accompanied by such goods movements at all.

D3.1.2 — Correlative payments. Debt-receipts or payable-receipts and claim-disbursements or receivable-disbursements are cash-movements that are connected with later opposite cash-movements usually of the same amount (see D3.1.3, compensation-payments). They primarily do not affect income. Only differences between both cash-payments affect income. In periodic income accounting, they are accompanied by correlative or mutually compensating opposite accounting-payments (see D3.2.1, ante-payments) of the same amount in monetary units.

D3.1.3 — Compensation-payments. Compensation-receipts and compensation-disbursements are cash-movements that may, but need not, follow opposite cash-movements, usually of the same amount, for example, claim-disbursements (see D3.1.2, debt-receipts). Compensation-payments also occur in order to offset each type of ante-payments (see D3.2.1). They principally do not affect income. In periodic income determination, they are accompanied by opposite accounting-payments (see D3.2.2, Redemption-payments) of the amount of former ante-payments. Variations between compensation-payments and redemption-payments affect income.

D3.2 — Accounting-payments. Accounting-receipts or accounting-

disbursements are noncash-receipts or noncash disbursements. Noncash-payments may be subdivided into the following subclasses.

D3.2.1 — Ante-payments. Ante-receipts and ante-disbursements are movements in monetary units anticipating subsequent cash-receipts and cash-disbursements, which are expected in connection with certain movements of objects. Ante-payments affecting income anticipate cash-payments, according to D3.1.1, and are called ante-revenue-receipts and ante-expense-disbursements. Payments anticipated according to D3.3 are called ante-equity-receipts and ante-asset-disbursements; these are periodically offset. Correlative ante-payments anticipate compensation-payments according to D3.1.3 and neutralize, therefore, cash-payments according to D3.1.2.

D3.2.2 — Redemption-payments. Redemption-receipts and redemption-disbursements are movements in monetary units that diminish ante-disbursements (see D3.2.1, ante-receipts) when corresponding compensation-receipts (see compensation-disbursements, D3.1.3) occur. As a rule, they do not affect income. Only variations between redemption-payments and pertinent compensation-payments affect income.

D3.2.3 — Retro-payments. Retro-receipts and retro-disbursements are movements in monetary units that periodically offset opposite asset-disbursements and equity-receipts according to D3.3 in order to transfer the income effect of these payments to later periods in which the related movements of objects in nonmonetary classes occur.

D3.2.4 — Post-payments. Post-receipts and post-disbursements are movements in monetary units that diminish former retro-disbursements and retro-receipts (see D3.2.3) generally affecting income.

D3.3 — Store-payments. Equity-receipts and asset-disbursements are movements in monetary units that correspond with movements of objects in nonmonetary classes not yet affecting income. Therefore, they must be periodically offset or balanced by opposite retro-payments according to D3.2.3. Stores-payments are either cash-payments or ante-payments according to D3.2.1.

D3.4 — Payments affecting income. Revenue-receipts and expense-disbursements are movements in monetary units based, as a rule, on movements in nonmonetary classes affecting income. They are one-sided payments, either cash-payments according to D3.1.1 or accounting-payments according to D3.2.1 (ante-payments) and D3.2.4 (post-payments). All two-sided payments, combining receipts as well as disbursements of the same amount, do not affect income. Variations affecting income are either a compensation payment surplus or a redemption-payment surplus according to D3.1.3 and D3.2.2.

D4 — Income. Income is either total income or periodic income. Movements of objects affecting income are either outputs of objects of certain classes from the enterprise process or inputs of objects of other classes into the enterprise process. They are pictured by one-sided payments. Movements not affecting income are mutually compensating opposite movements of objects of the same amount. They are, therefore, reflected by two-sided payments. Periodically offsetting movements of objects principally affect income but only in future periods.

D4.1 — Total income. Total income is the difference between cash-receipts and cash-disbursements over the entire life of the enterprise. The difference may be positive (profit), zero, or negative (loss).

D4.2 — Periodic income. Periodic income is the difference between revenue-receipts and expense-disbursements for the period considered. The difference may be positive (profit), zero, or negative (loss).

Comments

The two scale definitions D1 and D2 distinguish physical units from monetary units. They stipulate the two significant, well-known methods of measurement generally used in accounting: quantification and valuation. Physical units depend on the type of objects or classes of objects and include gallons, acres, cubic yards, pounds, hours. Measuring units for cash — such units as dollars, francs, or florins — belong to physical measures, too. With respect to modern economies, the class of money is declared a basic class of objects. Therefore, the monetary scale based on currency is a uniform accounting measure for all objects, classes, and subclasses of objects. The monetary scale is obviously a ratio scale, too. All types of payments are defined as movements in monetary units, and all movements of objects thus are pictured in cash. As a rule, both scales D1 and D2 mathematically use the system of rational numbers.

In case of an unstable currency, it is possible to introduce a third type of scale in the form of an *index accounting scale* of measurement in order to stabilize all figures of the accounting system. This can be done by an appropriate additional definition which derives this scale from prices of the monetary scale. Furthermore, special rules are required to determine the index figures and to convert all payments with the help of corresponding conversion factors. All axiomatic elements remain unchanged in principle. They need only be applied with converted (stabilized) accounting measures. The unstable monetary and the stabilized index accounting systems run parallel with juxtaposed figures to be compared. In particular, there are concurrent monetary and stabi-

lized periodic incomes.[5] Total income determination is only based on cash-payments. Accounting-payments are only needed for periodic income which is defined by all types of payments affecting income.

Axioms

A1 — Quantity axiom. All objects of the enterprise dealt with in accounting (accounting objects) are identifiable quantities of goods, either of *available* goods or *owed* goods — assets and equities respectively — which can be subdivided into a finite number of classes. For each class a physical measuring scale D1 exists which fixes a unique number (measure) as the quantity for all objects, the class, and any subclass of it at all points of time.

A2 — Movement axiom. There are movements of assets and equities which are identifiable, finite, and can be uniquely and completely arranged as to the date of occurrence. Incoming assets and equities increase the quantity of existing objects, and outgoing assets and equities decrease them.

A3 — Image presentation axiom. Movements of objects in the basic class of money itself are directly identified by cash in monetary units.

Movements of anticipated future cash — ante-payments and redemption-payments — occur immediately in monetary units and are therefore also directly identified by cash.

Classes and objects with movements in present or future cash (with cash-payments, ante-payments, or redemption-payments) are, therefore, called monetary classes and objects.

Movements of objects in all other nonmonetary classes are substituted and thus indirectly identified by the corresponding exchange movements of goods of monetary classes which run parallel to them and in the opposite direction. The movements in monetary classes present an image of the movements in nonmonetary classes. Thus, all movements are ultimately depicted in cash (pagatoric image presentation).

Combined credit movements in both directions, so called pending transactions — that is, retro-receipts (real claims) with compensating ante-disbursements (nominal debts) or ante-receipts (nominal claims) with compensating retro-disbursements (real debts) — traditionally are not identified as no movement of original goods (neither in money nor in real goods) has taken place.

[5] Erich Kosiol, "Price Changes, Money Value, and Profit Distribution within the Framework of Financial Accounting," *The International Journal of Accounting 2* (Fall 1966), 1–24.

A4 — Valuation axiom. Incoming monetary objects (cash-receipts, ante-receipts, and redemption-receipts) and outgoing monetary objects (cash-disbursements, ante-disbursements, and redemption disbursements) are directly valued by their monetary units.

Incoming (outgoing) nonmonetary objects are indirectly valued by allocation of the sum of all exchanged outgoing (incoming) monetary units as the accounting measure.

Incoming (outgoing) monetary units without a pertinent exchange movement of other objects affect income by revenue-receipts (expense-disbursements). Conversely, if a movement in a nonmonetary class is not accompanied by an exchange movement in the monetary class, the accounting measure either is set zero or may be appropriately assumed to be.

A4.1 — Short-term consumption. The postdisbursements of each class of input goods with short-term consumption are valued by allocating the monetary value of the class — the outgoing monetary units for all available goods in the period considered, including those for goods acquired in previous periods — to both the outgoing goods (consumption) and the remaining goods in proportion to their physical quantities.

A4.2 — Long-term consumption. The postdisbursements of each input good with long-term consumption are valued by a periodic distribution of the sum of all outgoing monetary units for this good over the time of its economic life. The periodic shares are called depreciation rates. They are fixed by appropriate procedures differentiated for different classes of goals.

A5 — Realization axiom. Income is realized if and only if the output objects of the production process have been sold in the market and the incoming exchange objects belong to the class either of cash or of claims to cash. The monetary measures of these incoming goods represent realized revenue-receipts and consist of either cash-receipts or ante-receipts. Simultaneously, the monetary measures of the related input objects (outgoing exchange objects) are realized expense-disbursements. Until the date of sale, the monetary measures of input goods are accumulated and stored asset-disbursements as not yet realized (that is, as retro-receipts). If there are no realized revenue-receipts at all to which the expense-disbursements pertain, these expense-disbursements are to be regarded as realized at the occurrence date.

A6 — Accounting goal axiom. The accounting goal for all objects is the determination of income, either total or periodic income.

Comments

These eight axioms represent the skeleton of the pagatoric structure of movement accounting.

A1 states that all objects of accounting are quantifiable and thus measurable so that the scales D1 and D2 are applicable. This axiom may be regarded as an axiom of classification according to physical scales.

A2 stipulates the significant distinction between ingoing and outgoing goods as two directions of movements. It corresponds with the distinction of receipts and disbursements in monetary units.

A3 might be called the *axiom of parallelism* of goods movements which allows the reflection of the movements of nonmonetary objects by corresponding exchange movements of goods in monetary classes. It lays the foundation for the pagatoric measurement of all movements.

Pending transactions might be included in A3 instead of the rule tradition. Neither rule would influence the income and, therefore, they are not necessary in the pagatoric system of income determination. But, they would be advisable for flow accounting and liquidity analysis.

A4 regulates the uniform valuation of all objects and movements by monetary units. It fixes the principles of *acquisition values* by establishing a classification of pagatoric value categories which distinguishes between receipt and disbursements values.[6]

The allocation rule in axiom A4.1 is based on the moving average method. The price used for outgoing goods as well as for remaining goods (assets) is the weighted average price of the varying prices of all goods available for the period considered including the goods acquired in previous periods. It would be possible to use a different allocation rule, for example, one based on FIFO or LIFO methods or on the principle of imparity (lower value principles of conservatism). It is to be noted when computing the accumulated disbursements that axiom A4.1 holds for materials and semi-finished goods consumed as well as for merchandise and products sold. A4.2 requires the establishment of one or more depreciation plans for certain classes of goods which are omitted here.

A5 is an independent axiom and should be separated from axioms A2 and A4. The movement axiom A2 refers to the unambiguity of movements as such and does not deal with their effect on income. The valuation axiom A4 states the *amount* of realized-pagatoric values in monetary units whereas A5 determines the point of *time* when the

[6] Kosiol, "Pagatoric Theory," discusses this point in detail.

realization of payments happens. A4 and A5 cover different aspects of the same problem: realized valuation and realized timing. Thus the acquisition value (historical cost) and realization principles are theoretically not identical. The introduction of ante-payments as improper realized values in A4 requires fixing the time of realization in A5.

A6 is the central reference base for all other elements of the axiomatic system. Definitions D4.1 and D4.2 and several accounting rules and theorems deal with income.

Accounting (Computation) Rules

R1 — Registration of movements. All movements of assets and equities are to be entered at their monetary measures once.

R2 — Arrangement of movements of assets. For all classes of assets, the monetary measures entered are to be grouped separately in receipts, or incoming available monetary units, and disbursements or outgoing available monetary units. When expressed in accounts, receipts are entered on the left side, and disbursements are entered on the right side.

R3 — Arrangement of movements of equities. For all classes of equities, the monetary measures entered also are to be grouped separately, but in the opposite movement direction, in disbursements (incoming owed monetary units) and receipts (outgoing owed monetary units). When expressed in accounts, receipts are again entered on the left side, but in the opposite sense of movements.

R4 — Income as a difference of movements.

R4.1 — Total income in monetary units equals the sum of total receipts minus the sum of total disbursements.

R4.2 — Periodic income in monetary units equals the sum of all periodic receipts minus the sum of all periodic disbursements.

Comments

R1 is typical for the subsystem of single-entry bookkeeping. Rules R2 and R3 show the independence of accounting techniques. The presentation by accounts is only one possibility. The same arrangements are feasible with tables, lists, vectors, matrices, and networks. Rule R4 essentially determines the total and the periodic incomes in the same way. The coherence with definitions D4.1 and D4.2 is given by theorems.

Theorems

T1 — Total income.

T1.1 — The difference between (1) total receipts and total disbursements (R4.1) equals the difference between (2) total cash-receipts and total cash-disbursements (D4.1) and equals the difference between (3)

total cash-revenue-receipts and total-cash-expense-disbursements and equals the difference between (4) total revenue-receipts and total expense-disbursements.

T1.2 — The difference between (1) total accounting-receipts and total accounting-disbursements equals the difference between (2) total cash-receipts not affecting income and total cash-disbursements not affecting income and equals the difference between (3) total receipts not affecting income and total disbursements not affecting income equals (4) zero.

T1.3 — For each noncash subclass of objects, the difference between total accounting-receipts and total accounting-disbursements equals zero.

T2 — *Periodic income.*

T2.1 — The difference between (1) all periodic receipts and all periodic disbursements (R4.2) equals the difference between (2) all periodic revenue-receipts and all periodic expense-disbursements (D4.2).

T2.2 — The difference between all periodic receipts not affecting income and all periodic disbursements not affecting income equals zero.

T2.3 — For each subclass of assets (R2), the sum of all receipts is equal to or greater than the sum of all disbursements.

T2.4 — For each subclass of equities (R3) the sum of all disbursements is equal to or greater than the sum of all receipts.

T3 — *Conformity.* Total income equals the sum of all periodic incomes over the entire life of enterprise. (See T1.1.)

T4 — *Structure of payment-accounts.* If the methodology of accounts is used, the system of accounts consists of two rows of payment-accounts — asset and equity accounts (R2 and R3).

Asset accounts are either (1) cash accounts (D3.1 and R5.1), (2) monetary claim accounts (D3.2.1, D3.2.2, and R5.2), or (3) nonmonetary claim accounts (D3.2.3, D3.2.4, and R5.4). Equity accounts are either (4) monetary debt accounts (D3.2.1, D3.2.3, and R5.3) or (5) nonmonetary debt accounts (D3.2.3, D3.2.4, and R5.5). Thus, five types of payment-accounts emerge.

Comments

Theorems are deducible from definitions and axioms with the aid of accounting rules.[7]

T1.1 shows that rule R4.1 corresponds with definition D4.1. In the same way, rule R4.2 belongs to definition D4.2 in theorem T2.1. R4.2 provides the statement of movements:

[7] Kosiol, "Pagatoric Theory," discusses the derivation of theorems and their demonstration in a paradigm.

Statement of Movements

Receipts	*Disbursements*
I. Cash-receipts	I. Cash-disbursements
II. Accounting-receipts	II. Accounting-disbursements
1. Ante-receipts	1. Ante-disbursements
2. Redemption-receipts	2. Redemption-disbursements
3. Retro-receipts	3. Retro-disbursements
4. Post-receipts	4. Post-disbursements

Balance = periodic income

T3 reveals the basic coherence between total and periodic income determination. The axiomatic system is so constructed that the total period is divided into partial periods that fulfill the theorem of conformity.

T4 states the theory of two account rows included in the single-entry subsystem of pagatoric accounting — asset accounts and equity accounts according to R2 and R3. They comprise five types of accounts in agreement with definitions D3.1, D3.2.1, D3.2.2, D3.2.3, and D3.2.4 — cash, monetary claim, monetary debt, nonmonetary asset, and nonmonetary equity accounts.

The mathematical symbolization of the axiomatic system is possible for the most part by presentation of all payments D3 and their various subclasses by matrices, or vectors. Then, income D4.1 and D4.2 are mathematically defined, all accounting rules can be transacted, and all theorems can be proved. D1 and D2 for the measuring scales and valuation axiom A4 and its two subaxioms as well as realization axiom A5 are applied in the figures.[8] The symbolization of the remaining elements of the axiomatic system may be omitted here because it is not needed to demonstrate the computational mechanism of the calculus.

2. THE AXIOMATIC STRUCTURE OF STORE ACCOUNTING

Movement accounting is a self-contained system of pagatoric income determination ending with a statement of receipts and disbursements. Stores accounting concluding with a statement of assets and equities is not essential for determination of income, but it enlarges the system in order to secure periodic continuity over the entire life of the enterprise and to fulfill a secondary but compatible goal by offering another method to determine periodic income. To establish the complete axio-

[8] Kosiol, "Pagatoric Theory" shows the related mathematical derivations.

matic system, we need additional definitions, axioms, and accounting rules and can then deduce further theorems.

Definitions

D5 — Stores. Stores are quantities of objects (assets and equities), measured in monetary units and related to a specific point of time, which result in earlier inputs and outputs of objects. Inputs lead to an increase and outputs to a decrease of stores. Opening stores arise at the beginning and closing stores at the end of an accounting period. Classes of assets are cash and claims to cash (nominal claims) in the form of monetary (nominal) assets and nonmonetary (real) assets. Classes of equities (debts) are monetary (nominal) debts and nonmonetary (real) debts. The monetary measures of stores are resultants of two corresponding types of payments — receipts and disbursements. Thus, stores represent collections of accumulated values in the form of payment surpluses.

D5.1 — Cash. Stores of cash are stores of receipts as receipt surpluses of the class of cash. Their monetary measures result from cash-payments, cash-receipts, and cash-disbursements (D3.1).

D5.2 — Nominal (monetary) claims. Nominal (monetary) claims or claims to cash are stores of receipts as receipt surpluses in the form of anticipated future cash-receipts (D5.1). Their monetary measures result from ante-receipts (D3.2.1) and redemption-disbursements (D3.2.2).

D5.3 — Nominal (monetary) debts. Nominal (monetary) debts are stores of disbursements as disbursement surpluses in the form of anticipated future cash-disbursements (D5.1). Their monetary measures result from ante-disbursements (D3.2.1) and redemption-receipts (D3.2.2).

D5.4 — Real (nonmonetary) assets. Real (nonmonetary) assets are stores of contra-values of cash and ante-disbursements (asset-disbursements) as receipt surpluses in the form of compensating retro-receipts. Their monetary measures result from retro-receipts (D3.2.3) and post-disbursements (D3.2.4). They principally affect income in later periods as post-disbursements (periodic transition of disbursements).

D5.5 — Real (nonmonetary) debts (equities). Real (nonmonetary) debts (equities) are stores of contra-values of cash and ante-receipts (equity-receipts) as disbursement surpluses in the form of compensating retro-disbursements. Their monetary measures result from retro-disbursements (D3.2.3) and post-receipts (D3.2.4). They principally affect income in later periods as post-receipts (periodic transitions of receipts).

A4.1a — Addition to A4.1. The goods acquired in previous periods in A4.1 are identical to the opening store of goods. The remaining goods (after consumption) in A4.1 are identical to the closing store of goods.

Accounting (Computation) Rules

R5 — General rule for stores (balances). The closing balance of all objects (assets and equities) is generally determined by the following rule: opening balance plus inputs minus outputs equals closing balance.

The first period begins with zero as the opening balance. For all other periods, the opening balance is identical with the closing balance of the preceding period.

R5.1 — Cash. Opening balance of cash (receipts surplus) plus cash-receipts minus cash-disbursements equals closing balance of cash (receipt surplus).

R5.2 — Nominal claims. Opening balance of nominal claims (receipt surplus) plus ante-receipts minus redemption-disbursements equals closing balance of nominal claims (receipt surplus).

R5.3 — Nominal debts. Opening balance of nominal debts (disbursement surplus) plus ante-disbursements minus redemption-receipts equals closing balance of nominal debts (disbursement surplus).

R5.4 — Real assets. Opening balance of real assets (receipt surplus) plus retro-receipts minus post disbursements equals closing balance of real assets (receipt surplus).

R5.5 — Real debts (equities). Opening store of real debts (disbursements surplus) plus retro-disbursements minus post-receipts equals closing store of real debts (disbursement surplus).

R1.1 — Recording of stores. All accounting objects are to be entered once in monetary measures with their opening and closing balance.

R2.1 — Arrangement of stores of assets. The monetary measures of stores of assets are to be arranged (grouped) in conformity with their movements (R2).

R3.1 — Arrangement of stores of equities. The monetary measures of stores of equities are to be arranged in conformity with their movements (R3).

R4.3 — Periodic income as a difference of stores. Periodic income in monetary units equals the sum of all closing asset stores (receipt surpluses) minus the sum of all closing equity stores (disbursements surpluses).

Theorems

T2.5 — Periodic income. The periodic income as a difference of stores or balances (R4.3) equals the income as a difference of movements (R4.2).

Comments

The additional definitions and rules for stores are evolved with the aid of payments already defined. The minimum classification of five types of stores agrees the corresponding distinction of types of accounts. The various classifications in pratice axiomatically are not important and may be viewed as subdivisions of the five theoretical classes of accounting objects. The insertion of stores in A4.1a is merely a definitional problem and does not change other statements.

It should again be emphasized that the definitions and accounting rules for stores consider stores as accumulated payments — receipts or disbursements — and treat them computationally as payments only.

T2.1 and T2.5 prove the identity of both avenues of income determination (by movements and by stores) with income definition D4.2. R4.3 gives the equivalent statement of stores or balances (assets and equities).

Statement of Stores (Balances)

Assets (stores of receipts)

1. Cash (store of cash-receipts)
2. Monetary claims (store of ante-receipts)
3. Nonmonetary assets (store of retro-receipts)

Equities (stores of disbursements)

4. Monetary debts (store of ante-disbursements)
5. Nonmonetary equities (store of retro-disbursements)

Balance = periodic income

3. THE AXIOMATIC STRUCTURE OF CHANGE ACCOUNTING

Change accounting is an addition to movement as well as to store accounting because changes may be regarded as differences both of movements and of stores.

Definitions

D6 — Changes. The positive differences between receipts and disbursements in the five special rules R5 are called periodic changes by movements. They represent either receipt surpluses or disbursement surpluses. The positive differences between closing and opening stores

by the same rules are called periodic changes of stores. They represent correspondingly either receipt or disbursement surpluses.

D7 — Owners' equity. All equity stores (disbursement surpluses) minus liabilities (disbursement surpluses) as part of nominal debts minus real debts (disbursement surpluses) equals owners' equity (disbursement surpluses) as remaining nominal debts.

With this statement, it is necessary to consider periodic profit as an ante-disbursement and periodic loss as a redemption-receipt (both as equities).

Accounting (Computation) Rules

R6 — Income as a difference of changes. The income as a difference of changes is determined either by:

R6.1 — The sum of all periodic changes by movements representing receipt surpluses minus the sum of all periodic changes by movements representing disbursements surpluses, or by:

R6.2 — The sum of all periodic changes of stores representing surpluses minus the sum of all periodic changes of stores representing disbursement surpluses.

Theorems

T5 — Identity of Changes. For all classes and subclasses of objects, the changes of stores equal the related changes by movements (D6).

T6 — Periodic income.

T6.1 — Periodic income as a difference of movement changes (R6.1) equals periodic income as a difference of store changes (R6.2) and equals periodic income as a difference of movements (R4.2).

T6.2 — By recording periodic income as a store, namely of profit as an ante-disbursement (nominal debt) and of loss as a redemption-receipt (to be deducted from the pertaining nominal debt), we obtain the following equations:

1. The difference of all asset stores and all equity stores equals zero, the periodic incomes both recorded as opening and closing stores, respectively.
2. Periodic income equals the difference of closing owners' equity and opening owners' equity, periodic incomes both recorded as opening and closing stores, respectively.

Comments

R6 provides the *statement of movement changes* (surpluses of receipts and of disbursements) and the equivalent *statement of changes of stores*

or balances (increases in assets and decreases in equities as receipt surpluses, and increases in equities and decreases in equities as receipt surpluses, and increases in equities and decreases in assets as disbursement surpluses):

Statement of Changes

Surpluses of receipts (increases in assets, decreases in equities)		Surpluses of disbursements (increases in equities, decreases in assets)
Cash-receipts-surplus (cash-increase)	or	Cash-disbursements-surplus (cash-decrease)
Ante-receipts-surplus (claim-increase)	or	Redemption-disbursements-surplus (claim-decrease)
Redemption-receipts-surplus (debt-decrease)	or	Ante-disbursements-surplus (debt-increase)
Retro-receipts-surplus (asset-increase)	or	Post-disbursements-surplus (asset-decrease)
Post-receipts-surplus (equity-decrease)	or	Retro-disbursements-surplus (equity-decrease)

Balance = periodic income

T6.1 contains the fact that the incomes determined by rules R6.1 and R6.2 are equal and in conformity with income R4.2. All financial statements provide the same income figure. T6.2 deals with the well-known equality of assets and equities including income (1) and shows another rule of income determination by comparison of owners' equities (D7) at the end and the beginning of the period (2).

All three parts of movement, store, and change accounting create together the complete axiomatic subsystem of single-entry income determination. It consists of seven definitions with subdefinitions, six axioms with subaxioms, six rules with subrules, and six theorems with subtheorems, altogether sixty-three–system elements.

The mathematical symbolization permits the completion of all three financial statements and the proof of all theorems.

4. THE AXIOMATIC STRUCTURE OF THE DOUBLE-ENTRY BOOKKEEPING SYSTEM AND ITS PAGATORIC INCOME DETERMINATION

The subsystem of payments is to be supplemented by contra-entries. This is done by the following axiomatic elements.

Definitions

D8 — Revenues and expenses. Revenues and expenses are movements in monetary units that directly reflect periodic movements of objects in all classes and subclasses affecting income. Their measures are recorded as contra-values, or contra-entries, of one-sided payments (D3.4) and are equal to revenue-receipts (expense-disbursements). Reductions of revenues are recorded as expense-disbursements and reductions of expenses as revenue-receipts.

Accounting (Computation) Rules

R7 — Registration of revenues and expenses. All movements of objects (assets and equities) affecting income are, in addition to R1, to be recorded a second time with their monetary measures.

R8 — Arrangement of revenues and expenses. The monetary measures of revenues and expenses which are entered are to be arranged in subclasses independent of the arrangement according to the rules R2 and R3. When reflected in accounts, revenues are recorded on the right side and expenses on the left.

R9 — Periodic income as a difference of revenues and expenses. Periodic income in monetary units equals the sum of all periodic revenues minus the sum of all periodic expenses.

Theorems

T7 — Periodic income. Periodic income as a difference between revenues and expenses (R9) equals periodic income as a difference of movements (R4.2). It appears as a contra-value on the opposite side of the arrangement compared with arrangements R2 and R3. When presented in accounts, it appears as a balance on the left side in the case of profit or on the right side in the case of loss. If recorded in the statement, it corresponds with the same amount of the store recorded in T6.2 on the opposite side.

T8 — Revenue-receipts and expense-disbursements. Without contra-entries, it is possible to ascertain the income components from movements as follows:

T8.1 — All periodic receipts minus all two-sided receipts not affecting income equals periodic revenue-receipts, which equal revenue.

T8.2 — All periodic disbursements minus all two-sided disbursements not affecting income equals periodic expense-disbursements, which equals expenses.

T9 — Structure of income-accounts. If accounts are used, the sys-

tem of accounts consists of two rows of income-accounts, revenue and expense accounts (R7 and R8).

T10 — Collation of entries. The sum of all receipts plus expenses equals the sum of all disbursements plus revenues. When presented in accounts, the sum of all debit entries (left side) equals the sum of all credit entries (right side).

T11 — Material interpretation of payments. All accounting figures in monetary units represent formal image reflections measured in cash and consist only of payments in the form of movements, stores, and changes. It is possible to interpret them materially as movements and stores of goods themselves (available goods as assets, owed goods as equities). This interpretation leads to the following relationships:

	Payment Categories		*Goods Categories*
(1)	cash-receipt cash-disbursement	(1)	inflow of cash outflow of cash
(2)	ante-receipt redemption-disbursement	(2)	inflow of nominal claims outflow of nominal claims
(3)	retro-receipt post-disbursement	(3)	inflow of real assets outflow of real assets
(4)	ante-disbursement redemption-receipt	(4)	inflow of nominal debts outflow of nominal debts
(5)	retro-disbursement post-receipt	(5)	inflow of real debts outflow of real debts
(6)	revenue	(6)	creation and outflow of (output) goods
	expenses		inflow and consumption of (input) goods

Cash and nominal claims to cash are nominal assets. Real assets consist of original real assets and claims to them. Nominal and real debts are equities. Owners' equity is a subclass of nominal debts in addition to liabilities.

T12 — Maintenance of nominal capital. The concept of pagatoric income (D4) corresponds with the concept of nominal capital maintenance. This means that a pagatoric profit (loss) is identical with an increase (decrease) in nominal capital. An income figure of zero is in conformity with the break-even point of nominal capital maintenance (increase and decrease both equal zero). Revenues (expenses) repre-

sent inflows (outflows) of nominal capital. Hence, income as a capital change is measured only by an interval scale (distance scale) the zero-point (scale origin) being arbitrary.

Comments

The additional definitions and rules refer only to revenues and expenses in order to develop the subsystem. Rule R9 corresponds with the income statement:

(Gross) Statement of Income

Contra-entries of disbursements affecting income	Contra-entries of receipts affecting income
1. Expenses	1. Revenues
2. Reductions of revenues	2. Reductions of expenses
3. Provisional expenses	3. Provisional revenues
4. Reductions of provisional revenues	4. Reductions of provisional expenses

Balance = periodic income[9]

T7 proves that income as a difference of revenues and expenses equals all income amounts determined by movements, stores, and changes of payments. By this, the complete double-entry system is established as a uniform and self-contained system of income determination offering several methods of computation. T8 still belongs to the single-entry system and proves that it is possible to determine the revenues and expenses in the form of payments from the statement of movements without any contra-entries. T4 and T9 establish the theory of two-by-two rows of accounts. T10 contains the well-known collation rule used in practice for control purposes.

T11 deals with the important material interpretation of statements. The nominal preservation of capital in T12 does not represent an axiom but a theorem.

Basic movement accounting has been supplemented by store accounting, change accounting, income accounting, and the material interpretation of all other payment-related parts of the bookkeeping system. Movement accounting already contains all constituent axiomatic elements of the complete system. The other parts are, consequently, further

[9] The distinction between gross and net statements of income is discussed in Kosiol, "Pagatoric Theory." It particularly treats provisional and definitive expenses and revenues.

developments and enlargements of this central part. The entire system is basically pagatoric.

5. FLOW ACCOUNTING

An additional side-goal of this system is fund flow and financial flow accounting described as an inference from pagatoric accounting. To integrate this part of the bookkeeping system into the axiomatic system developed so far, it is again necessary to state definitions, an axiom, and theorems. The accounting (computation) rules consist of various procedures for classification, grouping, division, segregation, collection, separation, assignment, and allocation of already available figures of financial statements.[10]

Definitions

D9 — Funds. Funds are collections of objects measured in monetary units and consisting of classes or subclasses of assets, equities, or both. They are expressed in movements, changes, or stores. Correspondingly, fund movements, fund changes, and fund stores are distinguished.

Important types of funds are, for example, the cash fund, the fund of short-term nominal assets and equities (net liquid means), and the fund of all short-term assets and equities (net current assets). As a borderline case all objects form a total fund.

D10 — Fund flow statement. Fund flow statements are represented by pagatoric financial statements referring only to the fund or funds considered. According to D9, there are fund movement (gross flow), fund change (net flow), and fund store statements to be distinguished. They consist of fund receipts and disbursements, fund increases and decreases, or fund assets and equities, respectively. A total fund flow statement is identical to a complete pagatoric financial statement.

Fund flow statements derived from operations are restricted to movements or changes affecting income. It is possible, moreover, to exclude all income-effects of purely financial and extraordinary transactions from the fund flow.

D1.1 — Contra-funds. Contra-funds or complementary funds are collections of those objects which remain in the total fund after forming the fund being considered. By this process, the total fund is split into two parts: the fund itself and the related contra-fund. The income is to be inserted in the pagatoric statements as an equity. Instead of the

[10] Ibid.

total income figure, the components revenues and expenses can be inserted.

D1.2 — Financial flow statements. Financial flow statements (contra-fund flow statements) refer only to the contra-fund of a particular fund. Therefore, they are complements to the pertinent fund flow statement. An important financial flow statement is the cash financial flow statement as a complement to the cash fund flow statement according to D9.

D1.3 — Complete (fund flow and financial) flow statements. Complete pagatoric financial statements with inserted revenues and expenses can simultaneously be regarded as statements of funds and of contra-funds. All classes and subclasses of objects and all groups of objects can be viewed as a fund with the pertinent fund flow statement. Then, all other objects represent the corresponding contra-fund with the pertinent financial flow statement.

Axiom

A7 — Maturity dates axiom. For all objects, their stores, movements, and changes, there are maturity or due dates which are identifiable, unique, and assignable, and which fix the dates at which they again will become cash. Assets represent expected reliquidations in future cash-receipts, and equities are necessary repayments in future cash-disbursements. In this way, it is possible to array all assets and equities in the same groups of maturities on both sides of complete financial statements.

Theorems

T1.3 — Causal analysis of financial development. Complete flow statements according to D13 enable the analyst to study the movements and changes of every object, fund, or fund complex desired. They also show the fund applications and resources for every object, fund, or fund complex considered.

For each fund receipt (fund disbursement), an opposite fund or contra-fund disbursement (fund or contra-fund receipt) of the same amount can be identified representing the source or application of the fund item by the matching of corresponding debit and credit entries.

Some compensations (offsets) do not change the size of the fund within the fund itself or within the contra-fund, which may be removed from the overall statement and combined in a separate flow statement. The remaining items form the flow statement, only changing the size of the fund.

It is also possible to segregate the purely financial transactions and all

other compensatory items not affecting income and to prepare a special flow statement with those figures. All residual items provide a flow statement with entries only affecting income.

T1.4 — Cash flow statements. Instead of using cash fund flow statements together with cash financial (contra-fund) flow statements, it is possible to determine the cash change derived from operations (cash flow) as follows:

Net income (profit) plus noncash expenses (ante- and post-expense-disbursements) minus noncash revenues (ante- and post-revenue-receipts) equals cash-change (increase or decrease).

T1.5 — Financial analysis can be solved with the aid of flow statements derived from pagatoric financial and income statements. It is only a matter of identifying, dividing, and arranging the movements and changes.

The complete flow statement (D1.3), arrayed in maturity groups according to A7, can be used as a statement of mutual maturity coverage of the corresponding groups of means.

THE PAGATORIC INCOME DETERMINATION AS PAST AND FUTURE ACCOUNTING

The system of realized-pagatoric income determination developed to this point covers the accounting procedures of traditional financial bookkeeping which is, in essence, a past accounting of historical and documentary character.

On the other hand, one must not fail to notice that the calculus of pagatoric income determination is principally independent of time. For the temporal interpretation of all figures, the total extent of the time dimension is available, the past as well as the future. The reference to a certain period or point of time does not contradict this fact. Time as a frame of reference for terms and figures is to be understood methodologically in such a way that the unambiguity of accounting requires the fixation of certain time coordinates for accounting elements. Therefore, the temporal reference of past realized-pagatoric values merely represents a special case within a greater class of unambiguous pagatoric time.

The calculus of pagatoric accounting from this viewpoint represents a general accounting form which is open to various temporal interpretations. The calculus model dealt with to this point is only a special interpretation in the sense of past accounting. All periods and time points have already expired and lie in the past. Another special interpretation, however, leads to a calculus model, the figures of which are

related to future periods and time points. This model of a prognosticated pagatoric income determination represents a genuine future accounting system.

A few examples shall be presented. Cash-payments may occur as cash-payments in a future period. Ante-payments are then anticipated in this future period but related to later time points with respect to the future period considered. Cash-payments or ante-payments of the future period representing assets or equities of this period are compensated by retro-payments in this period. In this way, all figures are shifted to a future period and related to this period and its time points just as to a past period. Only the temporal reference frame has changed within the time coordinates.

It must be emphasized that the accounting figures do not become ambiguous despite their future orientation. The values are furthermore unambiguous and realized. The difference is only that the time of realization lies in the future period considered. It is a matter of unambiguous pagatoric values already realized in the past. After all, there is essentially nothing new in future accounting. In past accounting, too, future cash-payments are inserted as ante-payments but regarded as realized in the past period. This idea is consequently continued in future periods. So we arrive at future anticipations of still later future cash-payments.

The result of this enlargement of time reference is a system of unambiguous propositions for the purpose of realized-pagatoric income determination about the future planned or prognosticated enterprise process of production. The bookkeeping system of income determination may be used as an overall budget model of the business enterprise in order to simulate different conditions, various situations, and appropriate changes of the firm and its data. The system of accounts then becomes a financial or pagatoric simulation model of the enterprise as a whole. Because the calculus system is independent of a time reference, the axiomatic system need not be changed. The time period considered and its time points are to be understood as future time.

The identification of the system elements, in particular of the accounting measures, is completely different in both types of accounting. In past accounting, the data are derived from actual events that lapsed in the past. The data are registered by documenting, vouching, recording, entering, posting, and accumulating these events with their pertinent figures. This work belongs to the documentation task of book-

keeping. In considerable contrast, the figures of future accounting cannot be produced from bookkeeping. They must be made available from outside the bookkeeping records by special methods and procedures of prognosis and planning. There are prognosis models to be developed which are unrelated to bookkeeping and documentation. If the figures are available, they can be used and inserted in the pagatoric calculus system. Bookkeeping itself is not suited to prognosticate any date.

To evaluate the results of future accounting with its statements of future movements, future stores (balance sheets), future changes, and future revenues and expenses (profit and loss accounting), one must compare these results with the corresponding past accounting of the same period and analyze the causes of the variances similar to budgetary control and standard cost accounting. In the same way, future flow accounting and financial planning or budgeting must be transacted.

Many authors underscore the fact that the statements of past accounting, particularly balance sheets, contain future amounts, but this means only that these amounts extend into the future with their effects and implications. Indeed, ante-payments become future cash and assets, at first consumption goods, later are cash also. However, these comprise a complete future period and therefore are not genuine future accounting data which is feasible only by prognosis as projection. The future aspect of the balance sheet is limited only to the conditions of the keydates and their implications.

To complete the axiomatic system, D14 and R10 may be supplemented. An axiom expressing the possibility of prognosis may also be added.

D1.4 — Past and future accounting. The pagatoric calculus system is independent of time, in principle. The period considered may be a past period or a future one, viewed from the time of computing. All amounts (payments, changes, stores, funds, and contra-funds) are therefore referred to the particular period as the basic accounting period. In particular, cash-payments and ante-payments need to be viewed with respect to this period. The time of realization occurs in this period, also. The problem of future accounting means only a temporal transformation of all axiomatic elements from past to future accounting periods.

R10 — Registration. The recording (identification) in past accounting is done by documentation of actual events in the past. The related data are recorded as facts.

The recording act in future accounting needs prognostication of events that are expected but have not yet occurred. These amounts are predetermined by special methods of prognosis, forecasting, and projection.

Capitalism and the Development of Bookkeeping: A Reconsideration

PAUL FRISHKOFF*

INTRODUCTION

The past half-century has seen the publication of several books and articles, primarily by accountants and economists, concerning the early (ca. 1300–1600) development of bookkeeping.[1] Simultaneously there has been a number of books dealing with the medieval period.

We might then expect that, if there is indeed a relationship between the rise of bookkeeping and the decline of the middle ages, it has been fully expounded. To this author, however, this does not appear to be true; this article will attempt to clarify some of the causes.[2]

The reader might object here, as have some of my colleagues. "Why bother to study the history of accounting?" they ask. If bookkeeping/ accounting is, as we accountants maintain, theoretically and practically an important discipline, then the intensive study of its history is well justified, if only to illuminate some of the ever-present relations between accounting and its environment. If bookkeeping/accounting

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[1] In this article, the distribution between single-entry and double-entry bookkeeping, often more illusory than real, is deliberately ignored, and the concentration is on chronological periods rather than forms.

[2] Obviously there is a double causation here: just as the rise of bookkeeping was facilitated by the rise of capitalism, bookkeeping in its turn sped the development of the capitalist system. This article concentrates on capitalism as the independent variable. Others (for example, Sombart) have taken the opposite tack.

is not a major discipline, then the study of its history may explain why it is not.

ORIGINS AND APPLICATIONS

We should first distinguish between the "invention" of bookkeeping and its innovation into practical use. Otherwise, we are beset with such confusing allegations as, "It is not without significance that bookkeeping appeared at the end of the fifteenth century, nor that its birthplace was in the Italian republics. We all know of the marvelous awakening of that period, and particularly of the sudden expansion of commerce."[3] This statement, marring Hatfield's classic and otherwise excellent article, is a point of contention. Clearly, bookkeeping had appeared long before the fifteenth century and, in its cruder versions, dates back to earliest civilizations. By the Middle Ages, rudimentary forms of it were quite common, and not merely in Western Europe. Thus, for instance, we find that even in 1100, there was a "weekly accounting" to the German princes who controlled the tavern monopoly in the wild and barbaric regions of recently colonized Silesia.[4] Even if only double-entry be involved, this had "appeared" in Italy sometime between 1250 and 1350.[5] What Hatfield probably meant was not that the popularity of bookkeeping increased, rather than "bookkeeping appeared." This distinction must be kept in mind.

We concentrate here on history of the application, not the inception, of bookkeeping. Regarding the latter, Littleton tells us, "And when it is all put together, what do they have but a surmise as to how it all came about?"[6] Moreover, origination without employment is at best of dubious merit. Finally, all the evidence is not yet in, since studies to date have been unjustifiably ethnocentric, focusing on Western Europe.[7]

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[3] Henry Hatfield, "An Historical Defense of Bookkeeping," *Studies in Accounting Theory,* ed. by W. T. Baxter and Sidney Davidson (Homewood, Illinois: Richard D. Irwin, Inc., 1962), p. 10.

[4] Sylvia L. Thrupp, ed., *Change in Medieval Society: Europe North of the Alps 1050–1500* (New York: Appleton-Century-Crofts, Inc., 1964), p. 33.

[5] Raymond de Roover, "The Development of Accounting Prior to Luca Pacioli According to the Account-books of Medieval Merchants," *Studies in the History of Accounting,* ed. by A. C. Littleton and B. S. Yamey (Homewood, Illinois: Richard D. Irwin, Inc., 1956), p. 139.

[6] A. C. Littleton, *Accounting Evolution to 1900* (New York: American Institute of Certified Public Accountants, 1933), p. 40.

[7] For a refreshing exception, see Lyle E. Jacobsen, "The Ancient Inca Empire of Peru and the Double-entry Bookkeeping Concept," *Journal of Accounting Research 2* (Autumn 1964): 221–28.

TOWNS AND GUILDS

Having cleared up this distinction, let us examine the rest of Hatfield's statement. He traces the adoption of double-entry bookkeeping to the "awakening" of the period and the accompanying increase in trade. Along a path from crusades to trade to wealth to multiple ownership to the need for bookkeeping.[8] Littleton propounds a similar theme, adding the increase in production of handicrafts as a variation in the causal chain.[9]

These views, while containing no blatant error, omit certain dynamic and vital aspects of the rise of capitalism. We now turn to the rise of capitalism because it implies the decline of feudalism, and the latter aspect has received too little attention.

Feudalism was a hopelessly inefficient system of production, as to both the organization of labor into productive units and the incentives of the laborers. Because of its essentially static nature, it was bound to arouse opposition from those who might benefit from a more flexible society. Opposition from the peasants was, however, usually suppressed or repressed.

The really effective opposition emanated from the towns which had developed in the tenth century based on crude markets for trading of agricultural produce and handicrafts. As the towns grew and prospered, a struggle ensued for market control. The antagonists were the existing merchants and the feudal lords, each group seeking the profit to be made in this trading. The lords' interests were rather narrow: They wanted to sell their surplus agricultural produce and buy luxuries for their own consumption. As a sort of early form of countervailing power, the merchants formed guilds, organizations of both economic and political power. The struggle was taking place in England, Flanders, Italy, and elsewhere, even before the Crusades began to stimulate increased trade.[10]

The rise of the guilds had a significant, if indirect, effect on the rise of bookkeeping. This relationship entails a multifold explanation.

First, and most apparent, when the towns won out — and they did not always do so — an independent merchant class, the backbone of a capitalist system, was preserved.

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[8] See, for example, Eldon S. Hendricksen, *Accounting Theory* (Homewood, Illinois: Richard D. Irwin, Inc., 1965), p. 17.
[9] Littleton, *Accounting Evolution,* p. 17.
[10] Maurice Dobbs, *Studies in the Development of Capitalism* (New York: International Publishing Company, 1947), p. 33ff.

Second, the guilds acted as price-fixers.[11] Such activity has scarcely aroused commendation in the annals of economics; nevertheless, a concomitance was that the system of prices did gradually come to exist, replacing the prior system of exchange via haggling and barter. The barter system resulted from many causes: the lack of standardization of goods, the dearth of standard weights and measures, the mere cheapness of so many persons' time.[12] Haggling had engaged a great part of the merchant's time, time which he could now spend in the expansion of his trade. Further, the existence of prices, even fixed ones, facilitated large-scale transactions. A price system also lent itself to the use of money as a medium of exchange. While a price system was neither necessary nor sufficient for the adoption of bookkeeping,[13] it did encourage its use.

Third, the guilds engaged in yet another unwholesome practice, restriction of entry by levying of high entry fees and other measures.[14] As with price fixing, this had its undesirable effects, but it also brought about the creation of a laboring class of artisans and traders, those craftsmen and merchants who were forced to become employees of their more successful fellows. It is the contention of this article that this creation of a laboring class aided the rise of bookkeeping by giving the manufacturer — and to a lesser extent the merchant — something for which to account. In the one-man shop, the main cost — except when raw materials are a significant item of expenditure — is the opportunity cost of one's own labor. This opportunity cost has never lent itself to being accounted for, not even at present. Moreover, the revenue foregone by the alternate employment of one's own labor was very low, given the immobility of the times. The employment of hired labor, however, and the payment of wages, were transactions which could be translated into bookkeeping data.

Fourth, the guild restrictions also encouraged the use of the partnership form of business. To circumvent restrictions against outsiders engaging in a particular form of commerce, a man with funds to invest frequently became the silent partner of a guild member.[15]

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[11] Gideon Sjoberg, *The Preindustrial City: Past and Present* (New York: Free Press, 1965), pp. 190–93.
[12] Ibid., p. 206.
[13] Louis Goldberg, *An Inquiry into the Nature of Accounting* (Iowa City, Iowa: American Accounting Association, 1965), p. 42.
[14] Maurice Dobb, *Capitalist Enterprise and Social Progress* (London: Routledge, 1925), pp. 222ff.
[15] Littleton, *Accounting Evolution,* p. 36.

Thus, the monopolistic actions of the guilds, themselves the response to the earlier restrictions of feudalism, accidentally spurred the need for records, as well as other facets of capitalism. This relationship has, to my knowledge, been neglected by other writers.

THE MENTALITY OF STAGNATION

An aspect which has been less neglected, but still needs reinforced emphasis, is the psychological change accompanying, and hastening, the decline of feudalism.

The so-called Dark Ages before, say, 1100 were scarcely the times to encourage venturesome folk. An amateur medievalist has put the case pungently: "The Middle Ages were neither brave nor spiritual, but full of cunning, lechery, speculation unlimited by knowledge, and the passionate enjoyment of good things as available, because they so irregularly were."[16]

Life was short. Even before the plague ravaged Europe in 1348, other diseases and wars had contributed to an overall sense of fear and pessimism.[17] The desire for wealth was considered a major sin, and leisure was more esteemed than was initiative.[18] The psyche of the times has been well expressed:

> Feudal enterprise was of a very cautious kind. The aim was usually the amassing of wealth for display and present enjoyment, and the purely possessive aspect of it was, therefore, unduly stressed. The psychology of capitalist undertaking in its heyday, however, was different. . . . Miserliness supplanted *magnificentia.*[19]

The concept of "limited good" was integral with the gloomy outlook of the era;[20] this same attitude hinders development in many nations today.[21]

THE MENTALITY OF GROWTH

For commerce, let alone bookkeeping, to flourish, this mentality had to change, and change it did. The details of the transaction require

[16] A. J. Liebling, *Normandy Revisited* (New York: Simon and Schuster, Inc., 1958), p. 58.

[17] Johann Huizinga, *The Waning of the Middle Ages* (Garden City, New York: Doubleday Anchor Books, 1957).

[18] Sjoberg, *The Preindustrial City,* p. 186.

[19] Dobb, *Capitalist Enterprise,* p. 185n.

[20] George M. Foster, "Peasant Society and the Image of Limited Good," *American Anthropologist 57* (April 1965): 293–315.

[21] W. Arthur Lewis, *The Theory of Economic Growth* (Homewood, Illinois: Richard D. Irwin, Inc., 1965), pp. 15–48.

a whole separate study, and the causes of the change and bases of the new philosophy are still in dispute. This discussion is thus necessarily brief.

Suffice it to say that the new "merchant philosophy" of acquiring productive capital, with the accompanying notions of thrift and the virtue of hard work, became widespread. This did not affect all strata of society equally; indeed, some — particularly the serfs — were hardly touched by it at first. It affected sufficient numbers, however, to precipitate the growth of a considerable merchant class. Some of these — especially some silent partners in trade and banking — were, it is true, nobles, but often not agrarian nobles.

Whether this new outlook had its base in the Reformation (as expressed in "The Weber Thesis") or among the Jews ("The Sombart Thesis"), its effect was marked. Without it, modern-day capitalism might well not have appeared. Without it, the idea of the going concern was inconceivable; it is sophistry to postulate the continuity of an enterprise amidst expectations of plague, battle, death. Without it, who would grant credit, that prerequisite of capitalism and source of many a set of accounts?

In summary, the psychological changes were among the most important of the epoch. Although they have been given occasional lip service by accounting historians,[22] they merit reemphasis as the foundation stone both of capitalism and of bookkeeping.

OTHER FACTORS

Other changes favorable to the emergence of bookkeeping were also present. The existence of stable government — particularly in northern Italy — while not a sufficient cause, certainly ameliorated the conditions for trade.

Literacy, which we may take for granted, was crucial. As it became more widespread during the twelfth century, it engendered an "enormous body of accounts."[23] Moreover, the simplification of script writing and the increased use of the vernacular — especially in treatises such as Pacioli's — both supplied a larger number of potential bookkeepers and disseminated the rudiments of the art. The use of the printing press during the late fifteenth century facilitated the availability of treatises; Pacioli's was the first printed and widely distributed text and therefore

[22] For example, Littleton, *Accounting Evolution,* p. 16.
[23] Charles Homer Haskins, *The Renaissance of the Twelfth Century* (Cleveland, Ohio: World Publishing Company, 1963), p. 128.

receives perhaps more credit than is its due. The use of arithmetic, especially of the Arabic numerals, was also essential.

As these prerequisites were achieved, bookkeeping of one kind or another emerged. This did not happen at one time or place, but was a slow, haphazard process. What de Roover calls the "combustion point"[24] possibly overdramatizes the situation, but bookkeeping did grow like individual kernels of corn popping at random. We have seen what the major causes were. Littleton's judgment that "there is little discernible connection between the major historical events of the times and the development of accounting"[25] is therefore deemed erroneous.

CONCLUSIONS

Some of the causes of the adoption of bookkeeping during the late part of the middle ages have been analyzed in this article, factors which have been overlooked by accounting historians. The viewpoint has been a global one, rather than the tracing of the minutiae of the development of, say, the journal entry or the trial balance.[26] Accounting and the economic environment are inextricably interwoven, and the interaction has by no means yet ceased.

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[24] De Roover, "Development of Accounting."

[25] A. C. Littleton, *Structure of Accounting Theory* (Madison, Wisconsin: American Accounting Association, 1953), p. 4.

[26] Such details are commendably dealt with in Littleton and Yamey, *History of Accounting.*

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A Sociological Perspective on Accounting Innovation

CHARLES A. TRITSCHLER*

I. BACKGROUND AND APPROACH

Part II of this paper traces the history of an accounting innovation, the adjustment of financial statements for price changes, which was allowed by the tax regulations from 1946 to 1959 in France. Since this innovation was accompanied by substantial tax relief, an assumption of profit maximizing behavior leads to the hypothesis that a general adoption by eligible firms would result. However, the evidence of tax data in France leads to the rejection of this simple hypothesis. The mixed response of U.S. firms to tax relief from the "generally accepted" accelerated depreciation and LIFO accounting options supports this conclusion in Part III.

Because the reaction of the various firms to these subsidized accounting innovations has been so varied and complex, an alternative hypothesis drawn from sociological research related to the innovation process is examined in Part IV. This socio-economic hypothesis makes the adoption of innovation a function not only of its profitability, but also of its compatibility, simplicity, divisibility, and communicability relative to the social system into which it is introduced. This paper defines those variables within the context of accounting innovation and suggests how they might explain the record of mixed patterns of the adoption of adjusted statements (widely referred to as "revaluation" in the literature) and then its ultimate rejection in France. In Part V, the role of

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the government in France as an ineffective change agent is critically reviewed to indicate how accounting innovation can more effectively be facilitated by a sponsoring organization.

While accounting literature has long recognized the waste which arises from the conflicts between and within tax and financial accounting, Part VI emphasizes that such conflicts also severely impede the adoption of tax measures requiring accounting compliance. Even accounting innovations considered "generally accepted" impose a compliance burden, which distorts their effects and restricts their benefits to firms with a high adaptive and technical capability. Computer utilities offer the prospect of increasing the penetration of accounting innovations among potential adopters, if development of such programs integrates research in the behavioral variables of the diffusion process.

II. THE HISTORY OF AN ACCOUNTING INNOVATION[1]

With the issuance of *Statement 3* of the Accounting Principles Board, *Financial Statements Restated for General Price Level Changes*[2] and the current inflationary trends in the U.S. economy, the attention of accountants is once again turned to the why, how, and when of adjusting financial statements for price changes. Though field studies[3] support the informativeness of price change adjusted statements, the historical fact is that this added dimension in financial reporting has not gained general acceptance in the United States.[4] The most obvious source of empirical

[1] Accounting scholars may object to the term "innovation" applied to long-familiar accounting concepts. See Everett Rogers, *Diffusion of Innovations* (New York: Free Press, 1962). Rogers defines "an innovation as an idea perceived as new by the individual. It really matters little, as far as human behavior is concerned whether or not an idea is 'objectively' new as measured by the amount of time elapsed since its first use or discovery. It is the newness of the idea to the individual that determines his reaction to it."

See also Edwin Mansfield, *The Economics of Technological Change* (New York: W. W. Norton, 1968), p. 99. Mansfield further clarifies the term as used here in saying, "economists have stressed the distinction between an invention and an innovation on the ground that an invention has little or no economic significance until it is applied."

[2] American Institute of Certified Public Accountants, Accounting Research Division, *Statement of the Accounting Principles Board No. 3: Financial Statement Restated for General Price-Level Changes* (New York: American Institute of Certified Public Accountants, 1969).

[3] See for example Ralph C. Jones, *Price Level Changes and Financial Statements: Case Studies of Four Companies* (Evanston: American Accounting Association, 1955), and Paul Rosenfield, "Accounting for Inflation: A Field Test," *Journal of Accountancy* (June 1969), pp. 45–50.

[4] This study does not weigh the relative merits of general versus specific price change adjustments and uses "price change" as a generic term for the class of

evidence about adjusted statements — large-scale implementation in various foreign nations, has not led to any consensus in their favor either. The prevailing interpretation of the French experience with revaluation is exemplified in this statement by the leading United States authority on French taxation, Martin Norr:

> For merely ordinary price increases — creeping inflation, if you will — France finds the problems of revaluation not worth the price; she joins Italy and Japan, to say nothing of the countries that used a one-time post-war revaluation, in eliminating the device . . . no advanced country now uses revaluation, although many have tried it.[5]

This paper uses French tax data and an accounting model to derive effects of the first order on financial reporting and tax levies from the omission of price change adjustments. These effects are of two distinct types: the variation in information available from financial reporting, and the variation in resources available after taxes. Inferring the consequences of the variation in the information on, for example, investment, dividend, wage, pricing decisions is one line of research.[6] Inferring the consequences of the variation in resources available after tax on such decisions is another.[7] Both lines of research are extremely valuable and their results would necessarily be synthesized in policy judgments on the design of accounting and tax systems.

In the analyzing of the French experience, however, the informational effects cannot be disengaged from the fiscal effects because the adjusted statements were used for both financial reporting and taxation. To infer the overall relative benefit of the French system would involve the complexities of both lines of research. In contrast, this paper aims to use the coexistence of the adjusted financial reporting and the tax benefits (specified subsequently) to simplify the research objective. That is, the tax benefit makes adoption of the accounting procedures economically rational. This hypothesis is used here to interpret the French experience with adjusted statements. Thus, given some excess of tax benefit over compliance cost, a firm would rationally maximize real profit and adopt adjusted statements to minimize taxes.[8]

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possible range of adjustments. The French regulations provided no operational definition consistent with specified theoretical objectives though some were claimed at one time or another.

[5] Martin Norr, "Depreciation Reform in France," *Taxes* (May 1961), p. 400.

[6] T. R. Dyckman, *Investment Analysis and General Price Level Adjustments,* Studies in Accounting Research No. 1 (Evanston: American Accounting Association, 1969).

[7] Robert E. Hall and Dale W. Jorgenson, "Tax Policy and Investment Behavior," *American Economic Review* (June 1967), pp. 391–414.

[8] This is a focal hypothesis in the literature of innovation. "Taking account of

Our interest is then focused on those firms who rejected the tax benefit.

The Mixed Pattern of Adoption of Revaluation

Martin Norr characterizes the reaction of French firms to revaluation by reference to a local authority:

> Counsel for the French National Association of Employers has indicated that revaluation was used only very partially due, among other factors, to the "uncontroverted complexity" of the scheme and to the fact that certain accounting requirements were imposed on those who revalued.[9]

By measure of number of business units, revaluation was used "only very partially," but by measure of assets revalued, it was used quite extensively. The statement above is an oversimplification, which this paper refines by assembling the evidence on adoption of revaluation.

Revaluation was both a tax and accounting measure so that some part of the firms' reaction can be traced from comprehensive statistics given on tax returns. In broad context, it should be understood that corporate and personal income taxes are a much smaller source of revenue to the French government than the value added tax. Further, the "industrial and commercial" income tax is divided between that imposed on *le bénéfice réel* and *le bénéfice forfaitarie*.[10] Only the *le bénéfice réel,* or "the actual profit," is based on books of account to which revaluation could be applied. The data presented deal primarily with the companies, though some data do include or apply to partnerships and proprietorships, whose taxable income equals 25 percent to 30 percent of the total taxable under *le bénéfice réel*.[11] Analysis here is confined to adjustments of fixed assets, since data are available in more detail on them and their effects are the most important.[12]

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uncertainty and the fact that the spread of knowledge is not instantaneous, farmers have behaved in a fashion consistent with the idea of profit maximization. Where the evidence appears to indicate the contrary, I would predict that a closer examination of the relevant economic variables will show that the change was not profitable as it appears to be."

Zvi Griliches, "Hybrid Corn: An Exploration in the Economics of Technological Change," *Econometrica,* October 1957, p. 522.

[9] Norr, "Depreciation Reform," p. 396.

[10] *Le bénéfice forfaitaire* is a tax imposed on "normal income" based on a formula including sales, purchases, wages, and inventories. It is applicable to business proprietorship with sales not to exceed F 400,000 of goods and F 100,000 of services.

[11] Readers can keep in mind the relevant conversion ratio of F 1: $.20, effective with the devaluation of January 1, 1960. This "new" franc is used in reporting all data.

[12] See H. Peter Holzer and Hanns-Martin Schoenfeld, "The French Approach to

The revaluation of fixed assets was permitted beginning in 1946, when the tax rate on taxable income of "companies" (corporations and limited liability companies) was only 24 percent. Since the revaluation was optional, a lag in adoption of the accounting innovation might be expected. By 1954 the tax rate had risen to 36 percent and firms had had the time to adapt to the required accounting and to allay any fears as to the continuing benefits of the tax relief. As a result, the year 1954 provides an estimate of the extent of enterprises' acceptance of revaluation on a voluntary basis. It is the first year for which detailed data are available to the author. By 1958 the tax rate had risen to 50 percent thereby increasing the tax relief incentive for revaluation and that year was the last one in which the adoption of revaluation was voluntary. Since a final revaluation was made compulsory as of June 30, 1959, for firms with sales in excess of 5 million new francs, the extent of revaluation can again be measured in 1960 and subsequent years under that regulation.

1. Pattern of Adoption by Measure of Number of Firms With Revalued Assets. The data available extracted from *Statistiques et Études Financières*[13] shows 43,422 firms revaluing in 1952, a peak of 47,020 in 1955 under voluntary adoption, and a peak of 51,470 in 1964 under the limited compulsory basis after several extensions of the deadline for compliance.

Exhibit 1 tabulates additional data in relationship to the varying base of eligible firms as first available for 1954, then in 1958 largely before the compulsory regulation, and in 1960 when most of the compulsory revaluation took place but before the base has been affected severely by the exit of firms eligible and the entry of firms not eligible for revaluation.

Only 12 percent of the eligible firms had adopted a revaluation by 1960, and the increase from 9 percent in 1954 is largely due to the decline in the number of eligible firms. As classified by form of organization, the government controlled firms — utilities, transportation, and heavy industry — show the highest percentage of revaluation, reaching 76 percent in 1960. Even some of these firms rejected the option, as explained below. The percentage adoption for private corporations was next highest and actually declined from 35 percent revaluing to 31 per-

the Post-War Price Level Problem: Accounting for Changes in Price Level in France," *Accounting Review* (April 1963), pp. 382–87, for description of the complex inventory adjustment regulations, which resembled a base stock method.

[13] Ministerè de L'Economie et des Finances, *Statistiques et Études Financièrers* (Paris: Imprimerie Nationale, 1964 and 1967).

Exhibit 1. Statistics for Enterprises Taxed on Accounting Income (*Le Bénéfice Réel*): Number of Enterprises with Partial or Full Revaluation of Fixed Assets

	Fiscal Year Ended 1954			Fiscal Year Ended 1958			Fiscal Year Ended 1954		
	Enterprises		Percent	Enterprises		Percent	Enterprises		Percent
Classification by Legal Basis	Eligible	Revalued	Revalued	Eligible	Revalued	Revalued	Eligible	Revalued	Revalued
Nationalized and Joint Public-Private Corporations	50	35	70	115	77	67	85	65	76
Private Corporations	23,577	8,369	35	36,719	11,910	32	51,479	16,257	31
Limited Liability Companies	133,438	17,224	13	117,357	16,715	14	106,474	14,702	13
Other Societies	7,925	943	11	8,187	1,028	13	8,642	1,171	13
Total Companies	164,990	26,571	16	162,378	29,730	18	166,680	32,195	19
Partnerships and Proprietorships	299,620	18,830	6	250,008	16,888	7	231,728	16,398	7
Grand Total	464,610	45,401	9	412,386	46,618	11	398,408	48,493	12

Exhibit 2

	Fiscal Year Ended 1954			Fiscal Year Ended 1960			Fiscal Year Ended 1965		
Classification by Size	Eligible	Revalued	Percent	Eligible	Revalued	Percent	Eligible	Revalued	Percent
Sales—At Least F10 Million	2,371	1,694	71	5,389	4,049	75	9,151	6,547	71
Sales—Less than F10 Million	462,239	43,707	9	393,019	44,544	11	405,037	44,923	11

SOURCES: Ministère de L'Économie et des Finances, *Statistiques et Études Financières*, May 1957, March 1961, February 1963, October 1963, February 1967.

cent from 1954 to 1960 due to limited liability companies being reorganized as corporations. But the absolute number of corporations revaluing almost doubled. The totals of all companies' data provide the least fluctuation in the base and show an increase from 16 percent to 19 percent in those revaluing in contrast with an increase from 6 percent to 7 percent for partnerships and proprietorships from 1954 to 1960. All of the data are based on exhaustive census and no estimation is involved.

The forms of organization employed by large firms have higher percentages of firms adopting revaluation. For certain years data are available with classification into "large" firms (those with sales at least F 10 million) and "small" firms. The data in exhibit 2 establishes the fact that the large firms did revalue in a far greater proportion (75 percent in 1960) than did small firms (11 percent in the same year). These two populations are described subject only to error in the tabulation of the tax data. Statistical measures of the association between size of a firm's assets and adoption of revaluation cannot be inferred from only the two size classes nor is a causal relationship intended to be established, since other variables can be involved. The pattern of adoption is further delineated by another measure of the relation of size of firm to the decision on revaluation.

2. *Pattern of Adoption by Monetary Measure of Assets Revalued and Unrevalued.* The year 1960 is the first in which data of the value in Francs of fixed assets revalued and not revalued are available (see exhibit 3). Since the assets (net) are valued by different bases, the proportion of assets revalued is difficult to estimate. In 1960 net fixed assets of F 123,911 million were held by firms which adopted the revaluation basis for eligible assets and F 50,195 million by firms which rejected revaluation and remained on historical cost.

Data to adjust the historical cost of fixed assets to comparable values are not published, but even after allowing for a revaluation increase, the net fixed assets of firms employing some revaluation substantially exceeds those of firms wholly on historical cost. Again no criterion to determine what proportion of revaluation, in terms of assets, constitutes an adequate level of acceptance is available to us. The literal economic impact of revaluation on tax levies and firms' cash flow, however, is primarily a function of a measure of assets revalued rather than the number of firms.

Published tax data provides some indication of the effects on "companies" (equivalent to the U.S. corporate sector) arising from the reval-

uation. A 3 percent tax imposed on companies' revaluation reserves due to the increase of fixed assets, cumulative to June 30, 1959, and levied through 1966, is the only available source of data to estimate the magnitude of the revaluation adjustments. The tax amounted to F 1,598 million and thus places the reserve itself at 53,266 million.[14] Not all of the increases of net fixed assets as of June 30, 1959, corresponding to this reserve, would be reported in 1960 and shown in exhibit 3. By subtracting the cumulative increase an estimated historical cost F 68,392 million for the revalued basis class remains. The cumulative increase is 78 percent of this estimated historical case, which included acquisitions after June 30, 1959.

A rough but conservative estimate of the equivalent increase on the books at June 30, 1959, for the firms not adopting revaluation might be 60 percent of the historical cost. This would place the net historical cost basis class of fixed assets adjusted to a revalued basis at F 80,000 million

Exhibit 3. Monetary Value of Fixed Assets of Enterprises on Historical Cost and on Revalued Bases for Eligible Assets, Fiscal Year Ended 1960 (*Millions of Francs*)

Classification	Net Fixed Assets of Enterprises			Profit (Loss) Before Tax
	On Historical Cost Basis Only	On Revalued Basis As Eligible		
Companies				
Profitable	F 24,734	98,301		12,270
Unprofitable	17,518	23,357		(2,239)
Total	F 42,252	121,658		10,031
Revaluation Writeup as of June Thirty, Nineteen Hundred-Fifty-Nine			53,266	
Partnerships and Proprietorships				
Profitable	F 7,294	1,980		4,950
Unprofitable	649	273		(240)
Total	F 7,943	2,253		4,710
Grand Total	F 50,195	123,911		14,741
All Profitable Enterprises	F 32,028	100,281		17,220

SOURCE: Ministere de L'Economie et des Finances, *Statistiques et Études Financières*, February 1963.

[14] Ibid.

or approximately 40 percent of all fixed assets distributed among the 88 precent of the eligible firms (all forms of organization) rejecting revaluation. While the estimates of the revaluation increase foregone may be criticized as crude, the materiality of the amount of fixed assets not revalued surely cannot be denied. More important to defining the motivations behind this pattern of adoption and rejection are two variables, the individual profitability and the management objectives of the eligible firms. A lack of taxable income eliminates or reduces the tax relief incentive. Absence of the profit maximization objective, that is, an explicit profit satisfying objective, alters the firm's decision-making process.

3. Effect of Profitability and Private Ownership on the Response to Revaluation. Quite apart from whether private firms in general attempt profit-maximization or not, the firms controlled by the French government (nationalized or joint public-private corporations in exhibit 1) are operated as an extension of government planning and many have the primary objective of providing essential services and products for economic growth. The government is in a position to impose its policies on accounting methods or allow exceptions for more complex motives of its own by administrative decision. In fact, the government itself allowed the rejection of revaluation for twenty of eighty-five corporations, which remained on historical cost. Most important of these is the French railroad system which operates at a loss and whose fixed assets constitute most of those government-owned assets remaining on historical cost.[15] The decision of such government firms should not be considered as part of the test of private firms' response to the accounting compliance with requirements for tax relief.

Firms owned entirely or partially by the government include nearly all of the electric power and gas utilities, the railroads, the airlines, the coal mines, the tobacco and petroleum industries, as well as a variety of other companies. Their taxable income is about 6 percent of the total for all enterprises in contrast with their higher percentage holdings of fixed assets as tabulated in exhibit 4. To be sure, their taxable income is reduced by increased depreciation if fixed assets are revalued, but the coincidence of the private enterprises being the profitable ones is an historical fact in this time and place. Thus, the investment in fixed assets of government firms should be eliminated and considered separately in this analysis.

If the test of accounting compliance is measured in terms of revalued

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[15] Ibid.

Exhibit 4. Net Fixed Assets of Enterprises Classified by Ownership and Valuation Basis, 1960 (*Millions of Francs*)

	Enterprises Using only Historical Cost	Percent	Enterprises Using Some Revalued Cost	Percent	All Enterprises Taxable Income	Percent
Public Ownership	F 6,687	13	F 48,472	39	F 1,031	6
Private Ownership	F 43,508	87	F 75,439	61	F 16,189	94
Estimated Revalued Cost	F 70,000					

Source: Ministere de L'Economie et des Finances, *Statistiques et Études Financières,* Paris: Imprimerie Nationale, October 1963.

net fixed assets and restricted to private firms, after a conservative write-up of 60 percent applied to the fixed assets of private firms on an historical cost basis, the proportion of fixed assets held by the firms rejecting revaluation rises still further to F 70,000 million compared to approximately F 75,000 held by firms adopting revaluation.

The assumption of profit-maximizing behavior would predict that the private firms on historical cost would have little taxable income and thus little potential tax relief. No data on revaluation strictly for profitable private firms exist. However, exhibit 3 reveals that firms holding F 32,028 million of net fixed assets at historical cost did have taxable income and can be inferred to be predominantly private firms. Thus, approximately 70 percent of the net fixed assets on historical cost are held by profitable private firms who reject current tax relief. These profitable private firms rejecting revaluation held net fixed assets estimated at F 51,245 million on a revalued basis for comparison, 41 percent of privately owned net fixed assets, which represents the most relevant, though admittedly crude measure of resistance to revaluation. Since depreciation can be deferred and deducted from taxable income under French law, all firms might potentially benefit from revaluation, but the rejection of current tax relief by profitable private firms provides a conservative estimate of the firms who judged the cost of accounting compliance to exceed the benefits of tax relief from revaluation. The materiality of these benefits is estimated next.

4. The Magnitude of Tax Relief Due to Revaluation. A corporate income tax rate of 50 percent prevailed during the last years that revaluation was possible and has continued since. This depreciation tax shield is offset by the 3 percent levy on the revaluation increase, when

first placed on the books. The income tax rate for partnerships and proprietorships varies with the individual owner's tax status, but would be substantially lower than the corporate rate, the rate for "companies." Estimates of the tax shield foregone could be based on assumptions, which, though arbitrary, are justifiable within certain limits. Theoretically, a tax relief from F 10 to 15 billion applicable to profitable, private firms on historical cost appears reasonable. A crude gauge of the materiality of the tax shield is that the companies' income tax averaged F 5 billion per year from 1959 to 1963, after tax relief for those firms revaluing fixed assets. No provision for timing effects can be provided.

Though the reported profit is also reduced by the same amount and the tax benefit and compliance cost must be spread over the remaining life of the assets, the real net benefit to the companies is so substantial that some characteristics of the accounting prerequisite and/or the manner of implementation of the tax relief can explain this apparently "irrational" failure to minimize taxes. The hypothesis that the adoption or rejection of an accounting innovation is based simply on a criterion of profit maximization is itself rejected.

What then is the source of such reaction against an accounting compliance that these tax rewards should be rejected? Apparently, revaluation was perceived as a burden, not a benefit by an overwhelming majority of the profitable firms controlling approximately 40 percent of the fixed assets in the private sector of the economy. Certainly, the lack of accounting assistance could not have been the only binding constraint on revaluation for fifteen years under the pressure of an active demand from businessmen.

Firms' resistance to accounting compliance is further explicated by examination of tax data for U.S. corporations in the following section.

III. COMPARISON WITH U.S. TAX DATA ON ADOPTION OF ACCELERATED DEPRECIATION AND LIFO

The importance of behavioral factors in changing established accounting practices can be more generally documented with evidence from other countries. U.S. tax records provide an insight into the adoption patterns of business firms in response to the accelerated depreciation and LIFO inventory options. Again the tax advantage available from an accelerated amortization of asset cost is foregone for a substantial proportion of firms and assets, especially among medium to small-sized firms.

1. Pattern of Adoption of Accelerated Depreciation by Measure of

Number of Firms. An analysis by Ture[16] of depreciation patterns used on tax returns surmised that a minimum of 86 percent of corporations rejected accelerated depreciation in 1954, the first year available. By 1960 the minimum percentage rejecting accelerated depreciation had declined to 70 percent. His calculations assume no firms use both the sum-of-the-year's-digits and double-declining-balance methods, however, so that this minimum figure reflects an understatement of the percentage rejection of accelerated depreciation. With opposite effect, the calculations do not eliminate the firms without taxable income so that the figure reflects an overstatement of the percentage rejection of tax relief in this regard.

Ture's estimate of 70 percent of U.S. corporations rejecting accelerated depreciation compares with 81 percent of French companies rejecting revaluation in 1960 (exhibit 1). Using U.S. data available on number of returns classified by depreciation pattern and eight classes of total asset size, Ture found the Kendall coefficient of rank correlation to be −1.0 with a standard error of 0.0 between the estimated minimum percentage of returns using only straight-line depreciation and the size of total assets for all industrial divisions. Predictably, U.S. data lend support to the pattern of rejection of accounting innovation being inversely correlated with size of the firm.

2. Pattern of Adoption of Accelerated Depreciation by Monetary Measure of Eligible Assets. For the year 1959 the Internal Revenue Service in 1965 conducted a detailed analysis of depreciation practices on corporate tax returns.[17] Exhibit 5 presents a summary of the adoption of the accelerated depreciation method by monetary measure of eligible gross depreciable assets classified by the asset size of firms. In the sixth year that the tax relief was available, "small" firms, those holding 67 percent of eligible assets owned by firms in that class, "medium" sized firms, those holding 55 percent, and "large" firms, those holding 43 percent, rejected accelerated depreciation for tax purposes. In total, firms holding over $48 billion or 47 percent of eligible assets rejected accelerated depreciation.

Though the form of accounting compliance, the degree of tax relief, and the data available are not strictly comparable to that from France, the same general pattern of response appears, where a substantial mi-

[16] Norman B. Ture, *Accelerated Depreciation in the United States, 1954–60.* (New York: National Bureau of Economic Research, 1967).
[17] U.S. Treasury, Internal Revenue Service, *Supplementary Depreciation Data from Corporation Tax Returns, 1959* (Washington: Internal Revenue Service, 1965).

nority of assets are held by firms rejecting accounting compliance. While small and medium firms dominate this rejecting group in terms of numbers, large firms dominate it in terms of the monetary value of eligible assets. Approximately $36 billion or 75 percent of the eligible assets not on accelerated depreciation are held by "large" firms with total assets of $25 billion or more. The data from the United States does not provide the breakdown of the decision on depreciation pattern as between profitable and unprofitable firms as in the French data.

In comparison with revaluation, accelerated depreciation requires no initial utilization of prior-period accounting records, less discontinuity and complexity in implementation, and no requirement that it be used for financial purposes with attendant reduction of reported earnings. Nonetheless, a parallel pattern of rejection of the tax shield by a majority of individual firms and for a sizable minority of the eligible assets is apparent. Unfortunately, conclusions are somewhat tentative due to lack of data of what proportion of firms using only straight-line depreciation also lack taxable income and thus forego no tax relief.

3. Pattern of Adoption of LIFO by Number of Firms and Monetary Measure of Inventories. The extensive rejection of the LIFO option by U.S. corporations is documented in a special survey of tax data.[18] In the year ending June 30, 1964, only 1.1 percent of manufacturing firms reporting an inventory valuation method utilized LIFO in full or part and only 0.43 percent of wholesale and retail firms did. Here too, larger firms more readily adopted this accounting innovation since 26 percent of total manufacturing inventory valuation and 5 percent of total merchandising inventory valuation is held by firms which use LIFO to some degree. The only industries where more than half the inventory valuation is held by firms using LIFO to some degree are petroleum (82 percent), primary metals (63 percent), and tobacco (60 percent). All of these industries carry large inventories of basic materials quantifiable in physical units for case of LIFO computations, are characterized by economic concentration in a few large firms, and have historically been heavily involved with specialized tax provisions of one kind or another. Other data does not fulfill theoretical expectations so neatly.

Even within those industries (Standard Enterprise Classification of Major Groups) to which LIFO is more easily applied, the vast majority of firms do *not* utilize it. In petroleum, 97 percent of the individual firms do not use it at all; in primary metals, 95 percent do not; in

[18] *Statistics of Income, Corporation Income Tax Returns, 1963* (Washington: U.S. Government Printing Office, 1968).

Exhibit 5. Corporations Claiming Depreciation for Tax Year 1959. Depreciable Assets Purchased from 1954 through 1959, by Industrial Division and Depreciation Method (Property Cost, Depreciation, and Asset Life, for Small, Medium, and Large Size Corporations)

Size of Total Corporation Assets and Depreciation Method	Cost of property		Depreciation in 1959		Depreciation accumulated prior to 1959 (Thousand dollars) (5)	Average asset life (Years) (6)
	Amount (Thousand dollars) (1)	Percent (2)	Amount (Thousand dollars) (3)	Percent (4)		
	All industrial divisions					
Total Assets Under $1,000,000						
All methods, Total	13,395,290	100.0	1,219,881	100.0	2,185,077	17.9
Depreciation methods based on years of life, Total	13,392,093	99.9	1,219,554	99.9	2,183,636	17.9
Straight line	9,007,570	67.2	779,428	63.9	1,450,847	17.2
Declining balance	3,627,003	27.1	358,718	29.4	553,420	19.3
Sum of the years-digits	743,276	5.5	80,103	6.6	178,046	19.5
Other life methods	14,244	0.1	1,305	0.1	1,323	17.2
Units of production and other nonlife methods	3,197		327		1,441	
Total Assets $1,000,000 Under $25,000,000						
All methods, Total	4,783,058	100.0	336,110	100.0	701,717	23.1

Depreciation methods based on years of life, Total	4,782,774	99.9	336,027	99.9	701,717	23.1
Straight line	2,642,074	55.2	169,776	50.0	385,486	22.0
Declining balance	1,740,006	36.4	133,206	39.6	237,486	24.2
Sum of the years-digits	393,228	8.2	32,560	9.7	78,066	25.6
Other life methods	7,466	0.2	485	0.1	679	20.7
Units of production and other nonlife methods	284		83			
Total Assets $25,000,000 or more						
All methods, Total	84,630,169	100.0	5,834,310	100.0	14,455,073	22.5
Depreciation methods based on years of life, Total	83,388,208	98.5	5,743,334	98.4	14,079,961	22.5
Straight line	34,006,310	40.2	1,833,028	31.4	5,224,490	22.2
Declining balance	26,875,843	31.8	1,996,268	34.2	4,626,469	22.2
Sum of the years-digits	20,979,641	24.8	1,839,635	31.5	3,974,950	22.7
Other life methods	1,526,414	1.8	74,403	1.3	254,022	21.6
Units of production and other nonlife methods	1,241,961	1.5	90,976	1.6	375,112	

SOURCE: U.S. Treasury, Internal Revenue Service, *Supplementary Depreciation Data from Corporation Tax Returns, 1959,* Washington: Internal Revenue Service, 1965.

tobacco, 94 percent do not. LIFO is an accounting procedure taught religiously in accounting curricula, yet the accounting compliance requirements have limited its adoption to a mere 1,295 manufacturing and 1,129 merchandising firms as of 1964. Curiously enough, the number of firms adopting LIFO by industrial group range upward from nine in tobacco so that adoption of LIFO is widely dispersed and has been implemented to some degree in all manufacturing industries at the major group level of the Standard Enterprise Classification of the Bureau of the Budget. The potential extension of LIFO to a wide range of firms by way of the dollar value method is apparently rejected and the penetration of adoption is meager within all industries, whatever their operating characteristics.

The case for and against LIFO has been widely debated in the literature and LIFO usually does not offer as large or as certain tax relief under similar economic conditions as does the revaluation of fixed assets. French firms actually obtained only a tax deduction of F 5,920 million from the modified base stock method available to them or only 11 percent of that actually obtained from the revaluation of fixed assets. The scarcity of data available on inventory accounting methods limits further investigation of the adoption patterns in this area.

Whatever the limitations of LIFO in a normative sense, this analysis initially assumes the tax benefit of LIFO foregone as a trade-off against its deficiencies in measurement, against its companion effect of reducing reported earnings, and its difficulties of implementation. Like the revaluation procedure in France, the LIFO cost flow assumption for inventory valuation, which is generally considered a tax relief measure in periods of rising prices, must be used for financial reporting if used for tax purposes in the United States. However, large publicly-traded corporations, which would be most affected by reduction of reported earnings due to use of LIFO, actually employ it in greater proportion than do all the taxpayers reporting inventory valuation method to the IRS. The evidence for this is that of the 600 large industrial and commercial companies tabulated in *Accounting Trends and Techniques*,[19] 179 (30 percent) employ LIFO to some extent in contrast with 0.64 percent of industrial and commercial taxpayers reporting inventory valuation methods. It is interesting to note that the number of companies to some extent employing LIFO tabulated in the AICPA survey peaked

[19] American Institute of Certified Public Accountants, Accounting Research Division, *Accounting Trends and Techniques, 1968* (New York: American Institute of Certified Public Accountants, 1968), p. 54.

in 1957 at 205. The pattern of adoption of LIFO is as difficult to define and rationalize as those of the other tax accounting options. Another failure to confirm an hypothesis of general adoption of tax relief options emerges as a result.

New Directions in Accounting Research

The pattern of rejection of accounting innovation has been further delineated by identifying the adherents of the status quo as the smaller, less capital-intensive firms. Additional research traces rejections to particular industries. The final conclusion is that an overwhelming numerical majority of individual firms holding a material amount of economic resources reject tax relief, which requires significant accounting compliance and high technical capability.

It is doubtful that any accounting innovations would be voluntarily adopted by these firms without a deliberate program designed by some sponsoring organization acting as a change agent. The adoption of accounting innovations freely initiated by firms apparently is in some part a function of behavioral variables identifiable through research into the innovation process in other fields. The results of this research are applied to accounting in the next section.

IV. SOCIOLOGICAL VARIABLES IN THE DIFFUSION OF INNOVATION

Rogers[20] has summarized the research on the innovation process in different disciplines. Innovation in agriculture, for example, raises many of the same issues posed by innovation in accounting. In particular, the relative importance of economic and sociological variables has been the subject of special attention, though the difficulty of quantifying the sociological variables limits the empirical results attainable. This section defines the characteristics of innovation from Rogers' model in the context of accounting: relative advantage, compatibility, simplicity, divisibility, and communicability.

Relative Advantage

"Perception" of relative advantage rather than rational abstract proof of profitability is hypothesized to be a better predictor of the rate of adoption of innovation by members of a socio-economic system. The adaptive quality assumed in a capital budgeting analysis of an investment is an especially limited view of the firm's innovation in the case where there is already an investment in an existing accounting procedure

[20] Rogers, *Diffusion.*

perceived as meeting the objective of the innovation. "Costs of innovation, whatever their origin, will tend to produce program continuity."[21] Theoretically, the sunk cost of the existing system should be disregarded in capital budgeting, but conventional accounting, for its own purposes, does not eliminate book loss on past tangible investment. A loss on sunk costs of system development may be *perceived* as a part of the compliance cost.

Compliance costs also can vary in the proportion of fixed and variable components and the greater the fixed start-up cost relative to the incremental ongoing cost, the more risk involved in a new system. On the benefit side, the longer the period of payout, the greater the risk of new factors eliminating the net benefit. The short run benefit (that is, the first year depreciation tax shield) weighed against the sum of a substantial start-up cost and of an incremental ongoing cost offers substantially less relative advantage than does the long run benefit weighed against these same costs.[22] There is plausibility to assuming decreasing cost to scale behavior of implementation of these accounting innovations, which contributes to the explanation of the higher incidence of adoption among larger firms, within the framework of the capital budgeting decision.[23]

Moreover, if the innovation is revocable with an attendant second round of start-up costs, the rejection of the innovation itself offers a potential windfall benefit in terms of avoiding the second start-up cost. If the tax benefit is perceived as granted at the discretion of the government, it can be perceived as revoked at the discretion of the government and subject to a degree of risk. The firm's perception of the viability of tax regulations and degree of risk in compliance is a function of the long-run record of the government as an effective and consistent change agent in tax and accounting principles.

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[21] James G. March and Herbert A. Simon, *Organizations* (New York: John Wiley and Sons, 1958), p. 73.

[22] For an analysis of the relation of economic variables to adoption of technological innovation see Mansfield, *Technological Change*.

[23] Zvi Griliches, in "Congruence versus Profitability: A False Dichotomy," *Rural Sociology* (September 1960), pp. 354–56, supported this explanation in a rejoinder to sociologists' criticisms by asserting "the hybrid corn study concluded that one of the major factors accounting for the difference in the rate of acceptance of hybrid corn in different areas was the difference in the *absolute* profitability of the shift. Thus even though the *relative* superiority of hybrids may have been the same in different areas on the order of 20 percent, it meant much more to farmers in higher corn yield areas." Further, recognize that the shift to hybrid corn is limited to variable costs to a far greater degree than accounting innovations of the type analyzed here.

The explicit measurability of the compliance costs is very limited and excludes the cost of misleading or inconsistent reporting, of adaptation by interested parties and of governmental encroachment on management prerogatives. Unmeasured costs can be over- or underestimated subject to the bias of the measurers (owners, managers, and accountants), whose personal goals may not be simply profit maximization, but include uncertainty avoidance, security from threat of outside consultants, and autonomy from governmental regulation. Perceived relative advantage is not independent of the other sociological characteristics of innovation to be described, though as a cost benefit relationship is more usefully conceived in this outline as the profitability determined in monetary terms.

Though profitability is an important explanatory variable in determining the origin, rate, and ceiling of adoption of accounting innovation, its absence (strictly defined) does not provide an explanation of the rejection of tax relief in the proportions documented in this paper.

Compatibility

The perceived compatibility[24] of an innovation with the cultural values of a social system is hypothesized to increase its rate of adoption by Rogers and others. If the compatibility of the innovation is determined on a technical level, it becomes a subset of the cost-benefit analysis to determine relative advantage. Adoption of an accounting innovation can sometimes be simply a function of such technical engineering type factors almost devoid of dependence upon cultural, noneconomic values. The study of the innovative process has confirmed, however, that "profitability" does not invariably determine decisions on new methods of production or on new product consumption. The evidence on adoption of the accounting innovations presented in this paper supports this general thesis of the diffusion of innovation.[25]

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[24] Compatibility is also referred to as "congruence" in the literature. See Zvi Griliches, "Congruence versus Profitability."

[25] Zvi Griliches, in "Profitability versus Interaction: Another False Dichotomy," *Rural Sociology* (September 1962), pp. 327–30, somewhat modified his economic interpretation of adoption of innovation. "Let me say that in general I see little point in pitting one factor against another as *the* explanation of the rate of adoption. . . . I regret some of my own previous 'all or none' remarks quoted by Havens and Rogers. If one broadens my 'profitability' approach to allow for differences in the amount of information available to different individuals, differences in risk preferences, and similar variables, one can bring it as close to the 'sociological' approach as one would want to. The argument here is really not about different explanations of the same phenomenon, but about

If the definition of compatibility of innovation is extended and determined on a cultural level, then the socio-economic characteristics of the innovation and the culture as perceived by potential adopters must be analyzed and related to one another. An innovation evokes resistance from the members of a social system, if it intensifies existing conflicts among the norms of the system or implies emergence of new conflicting norms and a trend of significance beyond the particular decision. To illustrate, Rogers says Kentucky county agents experienced difficulty in switching Kentucky farmers to more "profitable" cucumber crops from tobacco, which carried more prestige with the farmers.[26]

Innovation itself is perceived differently depending upon the standards decision-maker and the social system have for innovation. Sociological description of diffusion of innovation deals with identification of potential adopters and their social systems. An example of accounting research in this area is the hypothesis of Sorter, Becker, Archibald, and Beaver,[27] who "contend that the nature of the corporate personality contains a noneconomic personality dimension, which we shall call conservatism . . . a generic concept that embraces many kinds of behavior including intolerance of ambiguity, solvency position, reluctance to change, minimization of book income, and risk aversion." They find empirical evidence to support their prediction of conservative financial ratios where a firm's tax and financial depreciation are consistent. This consistency they cite as an instance of intolerance of ambiguity and as part of the evidence of the pattern of conservatism.

To say behavioral conservatism is opposed to innovation is simply a tautology. Any accounting innovation involves willingness to change and a transition period in which some tolerance for ambiguity is required.[28] The focus here is on defining those characteristics of an inno-

the usefulness of different languages in interpreting this same phenomenon. While this is not a trivial issue, the same explanation can usually be stated in either language. Problems of terminology are ultimately of secondary importance. Terminology is a means, not an end." Undoubtedly, Griliches's technical skill would enable him to make good his claim, but the question remains which interpretation leads to the identification of the means by which rates of adoption can be acted upon to achieve certain ends.

[26] Rogers, *Diffusion,* p. 128.

[27] George H. Sorter et al., "Accounting and Financial Measures as Indicators of Corporate Personality: Some Empirical Findings," *Research in Accounting Measurement,* edited by R. K. Jaedicke et al. (Evanston: American Accounting Association, 1966), pp. 200–10.

[28] However, accounting conservatism in theory ought to be responsive to the minimization of income, which is the effect of the accounting innovations in question under inflationary conditions. This point hardly contributes to simplification of the issues.

vation which cause behavior patterns such as conservatism (in the sense of adherence to the status quo) to dominate economic self-interest, so that a profitable innovation is rejected.

Consequently, the hypothesis here is that accounting innovations differ in their system compatibility, which partially affects their rate of adoption. For example, the change from the calendar year to the natural year basis of accounting is technically compatible with existing accounting systems, but adoption is not uniform and conservatism obviously inhibits change. Yet tax statistics do show the number of firms on a noncalendar-year basis has risen from 13.4 percent in 1928 to 53.8 percent in 1965.[29] Without speculating as to what the equilibrium proportion of adoption should be, but making the usual assumptions of some technical relative advantage for those changing, examination of the data on a different scale of measurement of adoption gives a different interpretation of the pattern. From 1928 to 1965, the percentage of taxable income reported on a noncalendar-year basis has remained unchanged at 25 percent. The large firms reporting publicly have remained on the calendar year, simply because differing fiscal periods are technically incompatible with intraentity consolidation and interentity comparison of published results. That is, the microdecision on effective and cheaper accounting measurement by the individual firm is dominated by the compatibility requirements of the macrosystem of which it is a member.

In contrast, if an accounting innovation involves issues of compatibility with a high cultural valence, then prediction of some negative effects on adoption becomes fairly certain, but the explanation remains more speculative. Adjusted statements, for example, are to some degree perceived as reflecting cultural attitudes toward inflation, governmental functions and policy in the economy, equity in fiscal policy and income distribution, "fairness" in accounting, and management "style" in business affairs. If profit measurement is uncertain, then so must optimal business practices, profit maximization and taxation of profit be uncertain. The evidence of unintended, largely unresolved cultural consequences associated with any substantial change in the measurement of income and wealth are illustrated by the description below in this paper of the perceived "incompatibility" of adjusted statements with strong opposition to inflation.

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[29] U.S. Treasury, Internal Revenue Service, *Statistics of Income, Corporation Income Tax Returns, 1965* (Washington: U.S. Government Printing Office, 1969).

Simplicity

Complexity (as defined by sociologists) can more easily be analyzed consistently with the other variables in terms of its opposite, relative simplicity — the ease of understanding and of implementing an innovation as perceived by its potential adopter. Again, simplicity might reduce the cost of implementation and thus figure in the determination of relative advantage. However, simplicity, as a separate variable, would be the extent to which the adopter perceived that he could utilize the innovation with his existing skills and conceive of the relative advantage in terms of his existing knowledge and education. Thus, even, if it were given that some relative advantage had been demonstrated, if the potential adopter were dependent on an outside consultant for implementation, he might consider the consultant's role a dilution of his own stake in management and autonomy and be unwilling to take in the outsider.

If the potential adopter were unable himself to conceive of the innovation's cause and effect relationships, then an apparent current profitability of innovation might be construed as capricious and not a stable attribute of the innovation. If the potential adopter saw an arduous learning process involved or the successful outcome dependent upon his personal capacity to master the innovation, adoption of the innovation might be extremely threatening to his self-esteem and prestige. Studies of farm innovations support the positive effect of simplicity on rate of adoption.[30] The data in this paper indicate that smaller firms adopt the relatively simple change to noncalendar-year accounting period, but shun complicated techniques requiring some organizational staffing such as accelerated depreciation, LIFO, and adjusted statements. On the other hand, large companies with trained accounting staff can adapt to accounting innovation of some complexity as a matter of routine.

Divisibility

Divisibility is the degree to which the potential adopter perceives that he can adopt the innovation on a limited basis and increases rate of adoption. Divisible adoption may result from only a limited commitment of relevant resources under irrevocable conditions or from full commitment of resources under revocable conditions or some combination of the two. Thus, the adopter's risk is lessened and he can anticipate a trial and error experimentation to his own satisfaction.

Accounting innovation is commonly divisible in both senses. Various methods of adjustments for price change, of inventory valuation, and of

[30] Rogers, *Diffusion.*

depreciation patterns can be adopted with some discretion for different classes of assets in the United States and/or in France. Moreover, decisions on accounting and tax principles, if optional in the first place, are usually revocable with appropriate disclosure and tax agency approval.

In contrast with these factors making for divisibility of accounting innovation are those making for indivisibility, whereby innovations are most advantageous, if implemented comprehensively and consistently over time and among entities. Accounting innovations can be misleading and lacking in full advantage, if implemented in isolation. *Accounting Statement 3* emphasizes the importance of comprehensive adjustments including the measurement of monetary gains and losses. The French model of adjustment is presented in illustration of how piecemeal, fragmented implementation of indivisible innovation can lead to complex and confusing accounting systems. Moreover, if a consensus in adoption of an accounting innovation is not achieved in a reasonable length of time, the loss of information from interfirm comparisons becomes costly. Multiple basis reporting may alleviate interfirm disparities, but what is gained in terms of divisibility is usually lost in complexity and incompatibility with expectations of unequivocal reporting.

Communicability

Communicability is the degree to which innovations are easily observed and described to others. Communicability increases the rate of adoption, but is not simply the measurability of cost and benefit or profit. As a sociological rather than economic variable, communicability would distinguish the relative impact on potential adopters of different evidence of successful innovations such as follows: (1) normative marginal analysis in indication of the profitability of innovation; (2) the consequent expansion of a competitor's sales and the reduction of one's own; (3) the discussion of experience with the new practice by trusted peers.

Research findings from other disciplines — such as rural sociology and marketing — point to the importance of personal interaction of adopters and potential adopters in determining the rate of further adoption.[31] Evidence from the tax statistics indicates, however, that these bandwagon effects on adoption are constrained by ceilings, which may trace out the "market segments" for particular accounting innovations. Important contributions are possible from research into the technical and

[31] See Griliches, "Profitability versus Interaction," and references therein.

social affinities, which guide firms into adoption and rejection patterns.

In the case of impersonal communication of the advantages of adopting accounting innovations — such as adjusted statements under conditions of inflation — the first apparent result is lower reported earnings, while the ultimate effects of more valid information on decisions are difficult to trace. Even the tax relief may be masked by net reductions in earnings, if tax and financial accounting are the same, or by tax allocation, as in the United States, if the two are different. Reductions in tax based on accounting innovation are rarely measured and reported as attributable to the accounting innovation and thereby advertising its advantages. Tax relief tends to be regarded as a windfall profit and not as evidence of management proficiency. The effectiveness of tax measures as an instrument of government policy is generally controversial and debated in highly abstract, academic arguments, which are not meaningful to businessmen.

Limitations of satisfying behavioral prerequisites to the adoption of accounting innovations are evident and warrant further research, if implementation of such innovations is to become more effective.

V. THE FUNCTION OF THE CHANGE AGENT IN ACCOUNTING INNOVATION

Sociological research places heavy emphasis on identifying the change agent as a variable affecting the rate of adoption in relating and adapting the innovation itself, the potential adopters, and the socio-economic systems of which they are members. Because accounting acts as the information system not only for individual firms, but also for other interested parties, innovations usually have sponsoring organizations, such as the government (taxing and regulatory agencies), trade associations, professional accounting groups, and merchandisers of accounting services and equipment.

The role of the French government as a change agent to achieve adoption of revaluation might appear to be a mismanaged effort to implement the program.[32] However, the failures of government taxing agencies to provide compatibility, simplicity, divisibility, and communicability in complying with tax measures are so common that no singular significance need be assigned to the administration of this program.

Ultimately, the change agent, the French government, was the decisive factor in the rejection of revaluation in the interest of its own

[32] See Norr, "Depreciation Reform," pp. 391–401.

policy objectives and only secondarily in deference to the individual firms which had already rejected it. These firms have been identified as smaller and as holding a minority of the relevant economic resources. The government came to recognize unintended consequences of the adoption of revaluation and switched to a system of accelerated depreciation provisions, when revaluation was terminated. Judging from the U.S. experience, there is little reason to think this new program is meeting with rapid adoption by the firms rejecting revaluation.

Ultimately, the rejection of revaluation did not come from "big business"; it came from the government and from small business.

1. The French government, committed to central planning, found the revaluation provided significant increases in the *independence* of the private enterprise from the central plan and governmental direction. An incompatibility between revaluation and the government's anti-inflation and growth objectives was perceived.

(a) Enterprises were all too well shielded from adverse effects of inflation. The deGaulle government concluded that in order to contain inflation, the strategy to eliminate its origins precluded ameliorating its effects.

(b) Enterprises were provided with a cash flow from increased depreciation on assets "in place" that encouraged their use beyond optimal economic life and that facilitated self-financing where outside funds would optimally not be invested.

2. There was a notable failure of the government and small private enterprises to undertake the developmental programs necessary to implement fully the "laissez faire" compliance system.

(a) The government took no integrated approach to the application of revaluation. Administration and implementation were inconsistent, extemporaneous, and without adequate theoretical and technical basis. Government controls over accounting expanded as these deficiencies and inconsistencies engendered "reforms," revisions, and detailed procedures.

(b) The rank and file of French firms were confronted with an accounting system lacking in compatibility, simplicity, divisibility, and communicability relative to their existing information system and socio-economic norms.

The vague and inarticulate opposition of individual business firms to accounting and fiscal contrivances may have found verbalization in the rationalizations of the government for terminating revaluation.

Perceptions of the Incompatibility of Revaluation and Socio-Economic Norms

How did the government officials conclude that revaluation was not compatible with the nation's economic well being? The government position was reported as follows:

The old tax system acted to protect by taxation the producers hampered by the economic instability of the nation and the multiple monetary depreciations. The return to economic and monetary stability made unjustifiable those privileges which often facilitated the survival of enterprise useless to the national economy.[33]

The deficiencies of revaluation in restraining inflation repeatedly were cited and its repeal had the aim: "To make [the economy] healthier by eliminating clauses of protection which weakened the resistance of entrepreneurs to the rise in the level of prices."[34]

The basic flaw in fiscal policy was recognized as more fundamental than revaluation per se and it might be identified broadly as the array of "indexation" schemes employed in numerous areas of the economy. That is, as the government made available increasingly accurate, timely, and detailed indices of the effects of inflation, these were utilized to pace increases in wages, in supply costs, in depreciation charges, in inventory adjustments and in tax relief as discussed in this paper. These increases in turn led to higher prices to be reflected in the indices. In France even the national minimum industrial guaranteed wage (S.M.I.G.) was based on the consumer price index and the application of indices was commonly written into business agreements ranging from union contracts, to purchase contracts, to bond indentures.

The 1963 Organization for Economic Cooperation and Development review of the French economy adds credibility to this outline of the behavioral pattern emerging from technical regulations "geared" to inflation:

Price stability no longer seems normal and there is no real resistance to price changes. Even vending machines are converted to new prices with startling ease, and no one is surprised at repeated price increases. . . . Buyers' resistance to a rise is very weak, and there is a similar process with regard to earnings. . . . To break this vicious circle it was decided in 1958 to adopt a policy of "true prices" by abolishing subsidies and indexation schemes and by leaving the market as free as possible to determine prices. . . .[35]

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[33] Pierre Vergnaud, "La Politique Fiscale Francaise et la Reforme de 28 Decembre, 1959," *Revue de Science Financièrs* (1960), p. 502.

[34] Ibid.

[35] Economics and Development Review Committee, *Economic Surveys by the OECD: France, 1963* (Paris: Organization for Economic Cooperation and Development, 1963), p. 36.

Moreover, this pattern of a "legitimatized" inflation with the measures designed to measure and adjust for it contributing to its escalation was illustrated by taxation itself. As prices rose, revalued assets provided increased depreciation and lower taxes; as prices declined, the reverse, higher taxes. This is just the opposite of what economic theory calls for. Excessive accumulation of inventory as a hedge against inflation contributed to inflation and thereby justified itself with holding gains partially financed by the tax savings available from the increased inventory write-offs provided.

The tax benefits available from increased tax deductions were not interpreted as being passed along to the customer in pricing production, but rather as having "weakened the resistance of entrepreneurs to the rise in the level of prices." The government in repealing revaluation and outlawing indexation of bonds realized that these sophisticated procedures neither achieved their ends without adverse side effects nor contributed to the economic decisions appropriate to national planning objectives.

At the same time that the government aimed to contain inflation, it sought to plan for economic growth and to stimulate investment. To do so effectively, a program to channel investment into productive facilities and modernization and to increase the mobility of capital for financing was initiated. Vergnaud characterizes this phase of the program as follows:

> Reform (i.e., the substitution of investment incentives for revaluation) favors the one that modernizes his techniques, who increases his productivity and penalizes the one that remains in the routine.[36]

The key provision of the reform of 1959 was to replace revaluation with accelerated depreciation. That is, tax relief, previously available to the *passive* enterprise in varying degrees as long as it could keep fixed assets operable and the price level continued to rise, now was available only to the *active* enterprise inasmuch as it invested in new fixed assets presumably to its own best interest and that of the economy.

However, the assessment of investment incentives and revaluation tax relief has not fully run its course. For example, in the United States the investment tax credit, which is tax relief of the variety espoused by the French as noninflationary, is now being criticized as inflationary by way of its procyclical effect[37] and has been repealed by the Nixon ad-

[36] Vergnaud, "La Politique Fiscale," p. 490.
[37] See Joint Economic Committee, *1969 Joint Economic Report* (Washington: U.S. Government Printing Office, 1969), p. 20.

ministration. Consequently, the reported rationale of the French government for discontinuing the revaluation because of inflationary consequences now justifies discontinuing tax relief investment incentives of the type which the French substituted. Controversy not consensus is the result. While the revaluation accounting model surely has substantial limitations as a tax relief device, yet it may have its uses in providing equitable tax burdens between the more and less capital intensive firms in times of price fluctuations.

The significance of this rejection of revaluation would be incomplete if no mention of its effect on the proposed standardization of accounting in the Common Market were made. The effect was to reduce the likelihood of revaluation being accepted as an accounting principle, since no member currently employed it on a national basis. Norr quotes Giscard d'Estaing to the effect that "harmonization of depreciation would mark an important step toward the equalization of competitive conditions in the Market."[38] The necessity for compatibility of accounting innovation to systems of broad scope requires deliberate programs for achieving quick and wide adoption.

CONCLUSION

A sociological perspective on accounting innovation reveals sources of the widening gap between a conception of accounting comprehended by the layman and that by the technician. If the layman (defined to include most businessmen) expects to comprehend fully each accounting innovation, then the evidence is that accounting is already employing innovations too complex for general acceptance. While accounting reports must be comprehensible to the user, the question remains to what extent their derivation need be or can be in the future. If tax inspired accounting innovations are perceived as arbitrary manipulation by government agencies, the layman ceases to trust the results and resists any further accounting innovation whose output he does not comprehend and regard as useful management information.

Rapid voluntary adoption of complex accounting innovations would be facilitated by purposeful diffusion at both technical and behavioral levels.

1. Accounting innovations should be conceived and perceived as part of a technically justified program for improving income and wealth reports which are themselves "neutral" as to controversial socio-economic ob-

[38] Norr, *Depreciation Reform,* p. 400.

jectives. Partisan socio-economic tax measures should be independently implemented for the sake of their own effectiveness and so as not to impinge on the perceived compatibility of accounting principles with the existing cultural norms.

2. To be applied outside large corporations, accounting innovation of the complexity examined here requires the emergence of accounting service bureaus or information utilities as change agents marketing package programs to take complex inputs (including macro-economic data) and generate comprehensible output for managers. The effect of such utility service can reduce the start-up cost of sophisticated accounting and provide for sharing the monetary and psychic costs of accounting innovation. Research in the diffusion of accounting innovation is imperative, if such technological advances are to be efficiently implemented.

New German Regulations for the Publication of Financial Statements

HANNS-MARTIN SCHOENFELD*

Thoughts and ideas concerning accounting principles, financial statements, and related topics are subject to continuing gradual change. Progress in this area is less obvious in countries where the accounting profession exerts a constant influence on these matters and where actual changes are not dependent on laws or regulations. If accounting is regulated by law, however, the passage of a statute represents a culmination point at which the results of discussions by members of the profession become manifest. Such a milestone was reached in Germany with the passage of the Law Concerning the Accounting of Certain Enterprises and Companies with Affiliates *(Gesetz ueber die Rechnungslegung von bestimmten Unternehmen und Konzernen)* on August 15, 1969,[1] also known as the Publicity Law *(Publizitaetsgesetz).*

To familiarize the accounting profession and other interested business groups with the new law, both the background and important details of it are summarized in this paper. To understand these points more completely, however, provision of a short comprehensive review of the situation before the acceptance of the new law seems indispensable.

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[1] *Bundesgesetzblatt,* Teil I, Nr. 78 vom 20 (August 1969), pp. 1189–99.

I. SITUATION BEFORE THE PASSAGE OF THE LAW

In Germany the publication of financial statements (balance sheets, profit and loss statements, and a short accompanying report) has been regulated by various laws. The major provisions in this area are contained in: (1) corporation law *(Aktiengesetz)*; (2) law concerning limited liability companies *(GmbH Gesetz)*; (3) law concerning cooperatives *(Genossenschaftsgesetz)*; and (4) specific laws regulating certain types of business (for instance, banks, savings banks, insurance companies, mutual insurance companies, and other less common types of enterprises).

The most widely applicable regulations are found in the corporate law. Because these regulations are carried over with only insignificant changes in the laws regulating limited liability companies and cooperatives, the situation will be assessed on this basis.

In general, corporations must publish their annual financial statements using the format prescribed by Sections 151 and 152 AktG.[2] Without entering a detailed analysis, we can state that these regulations appear sufficient to provide some insight into the financial position of a corporation. Special care is taken to insure that items will be clearly marked (and cross-referenced whenever the reader may expect to find them in more than one place), and that all contingent liabilities, as well as possible obligations from warranties, are shown (without being added to the total). The various categories of shares, authorizations to increase capital, and treasury stock, as well as additions and dispositions of surplus must be disclosed. The valuation of all items is specifically regulated in Sections 153–59 and follows the generally accepted principle of historical cost; depreciation is subtracted directly from asset values; historical cost, however, tends to permit undervaluation (conservativism). Since the corporation law places major emphasis on the protection of all parties with financial interests in the firm, even an undervaluation guarantees sufficient safeguards against loss, as long as any overstatement of assets is prevented. The frequent criticism that assets are considerably understated under these rules is valid though somewhat exaggerated if one bears in mind that the historical cost principle together with an increasing turnover of fixed assets and management's concern with profit prevent such a development, at least as the inflationary trend is limited.

The profit and loss statement (Section 157)[3] has become more de-

[2] See Appendix.

[3] See Appendix.

tailed since the 1959 revision of the corporation law and meets international standards evidenced by similarities with contemporary usage in the United States and other countries. Among many other points, the law requires disclosure of sales revenues (minus rebates), the separate reporting of nonperiod expenses and revenues, and a detailed disclosure of all items affecting surplus.

To complete the information presented, an accompanying report (Section 160)[4] is required; this serves to explain valuation and depreciation methods which must be known to understand fully the financial position and the revenue or profit situation. Changes in valuation methods, additions and dispositions of fixed assets, and all other accounting modifications impairing the comparability with previous years' statements must be reported. Particular mention is required of all stock transactions by third parties on behalf of the corporation (if these concern stock of the corporation or its affiliates), treasury stock of the corporation or its subsidiaries, mutual stockholdings, nonstock profit participation rights, contingent liabilities not contained in the balance sheet, payments to present and former board members and officers, relationships with dependent or dominating companies, and such other items which need publication to discharge properly the accountability responsibilities of management. However, no details possibly damaging to the interest of the corporation need be disclosed, thus providing an escape clause.

Sections 331–34 provide for the compilation and publication of consolidated financial statements and reports for corporate business combines, defined by law as groups of companies with such a capital dependency on each other that the complex must be regarded as an economic unit provided the group of firms are located within the boundaries of the Federal Republic of Germany.

The corporate law, however, adopts less stringent disclosure rules for so-called family corporations (1) if no stocks are traded on a German stock exchange, and if the total assets are less than DM 3 million or (2) if total assets are below DM 10 million and all stocks are held by one person or a family. In these cases, an abbreviated profit and loss statement omitting gross sales revenues (using a net figure) is permissible.

All published statements must be certified by a duly authorized public accountant *(Wirtschaftspruefer)*.

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[4] See Appendix.

II. REASONS FOR EXTENDING DISCLOSURE REQUIREMENTS

The long-standing practice of requiring only certain types of businesses — defined by their legal form — to publish financial statements has been increasingly criticized during the last two decades. Existing laws required most major firms to publish statements; some, however, were omitted. Among these were large subsidiaries of foreign corporations who avoid choosing the legal form of a corporation (which would have been necessary otherwise, considering capital requirements), because financing could be accomplished with the help of the home office, and some wholly owned subsidiaries of national corporations. Although some did publish financial statements they were not subject to any standardized disclosure rules.

It was argued that information concerning financial positions of large businesses became increasingly important for both economic and social reasons because of the dependency of the public on national economic conditions. Difficulties developing in a large firm, regardless of its ownership, may therefore interfere with the well-being and economic interests of many, such as creditors, suppliers, customers, employees, communities as tax recipients, or the regional and general labor market, and might affect socio-political decisions. In view of possible repercussions of business failures, the interest of the general public — presumed to be of greater importance than specific interests of individual businessmen[5] can be served only if sufficient information is provided. Keeping in mind the interest of the general public and the possibility that with enough information government agencies might better assist business, it was furthermore argued that this information could be provided either by forcing such enterprises to change their legal organization to that of a corporation with legal disclosure requirements or by adopting rules which did not require such a change, but which subjected all large firms to minimal disclosure requirements. Such a requirement hopefully will minimize the use of questionable business principles and also facilitate the public discussion of certain practices if the need should arise.

It should be stressed that the German legislature was aware of the possibility that competitive disadvantages might arise from the enforcement of the publication of financial statements. This concern is

[5] For this reasoning see: "Entwurf eines Gesetzes über die Rechnungslegung von Grossunternehmungen und Konzernen," *Bundesratsdrucksache 296*:68, pp. 13–14. This point of view is reinforced by the fact that all major postwar bankruptcies in Germany occurred with noncorporations (Borgward, Krupp).

invalidated to a certain extent by the recent practice of some large non-corporations which have widely publicized their financial and other results, even in the absence of legal obligations. Furthermore, it cannot be demonstrated that firms publicizing financial statements have sustained measurable disadvantages from such publication. To safeguard against such possible negative results, data to be published by privately owned businesses has been somewhat reduced:

1. The frequent arguments that accounting data are not very meaningful in assessing the economic potential of a company and that they are not available early enough, were considered to be inconclusive because published financial statements have served their admittedly limited purpose in the case of corporations.
2. Publication requirements for financial statements could be considered a reduction of freedom to conduct one's affairs *(Gestaltungsfreiheit des Unternehmers)*. The legislature was aware of these basically undesirable implications of this legislation but felt, however, that neither the cost of having legally required audits, the disclosure of specific details to auditors, nor the dissemination of information to the general public represented a substantial infringement upon the freedom of entrepreneurs. Even if there were such an infringement, the interest of the general public had to be considered more important than the protection of individual rights. This represents a noteworthy development because it affirms indirectly certain social obligations of businessmen. It also removes certain inequities of the legal system by extending the accountability policy limited to corporations by tradition to a much larger segment of the business community.

III. NEW DISCLOSURE REGULATIONS

1. General Criteria for Publication

According to the new statute (Section 1), all business enterprises meeting two of the three following criteria for three consecutive fiscal years must publish their financial statements:

1. A balance sheet amount (computed according to the regulations of the corporation law) equal to or exceeding 125 million DM;
2. An annual sales revenue equal to or exceeding 250 million DM;
3. An average work force during the fiscal year of 5,000 or more employees.

Size, as will be noted, is not measured only in terms of assets or sales revenues; either one of these criteria alone would be misleading in en-

terprises with extremely high capital requirements or large wholesale sales. A combination of the two, together with the number of employees, can be regarded as a fairly objective aggregate measure of the impact an enterprise might have on the regional or total economy. The law further provides that liabilities from excise taxes shall be excluded from computation in the final amount of the balance sheets. Banks are required to publish their statements only if the total volume of their business (including all notes and drafts and contingent liabilities from endorsements and other sources) exceeds 300 million DM.[6] Insurance companies must publish statements if annual premium revenues exceed 100 million DM.[7] If an independent businessman owns more than one enterprise all his undertakings are considered as a single entity since he has and often exercises the option to operate them as one economic unit.

The legal representatives of an enterprise are required to inform the local court at which firms are registered immediately if two of the three criteria for publication are met at the end of any one fiscal year; other government authorities must also be notified if the firm is subject to governmental control in any way.

If the criteria are met as a result of a merger, published disclosure is required during the first year in which the test becomes positive, provided the purchased enterprise has met two of these three criteria during the two previous years.

All publication requirements end if for three consecutive years two of the three criteria are not met. This provision assures that the obligation to publish does not lapse as soon as a temporary reduction in activities occurs.

Section 3 of the new law specifies the enterprises which are subject to its regulations: (1) companies with limited liabilities *(GmbH)*; (2) mining companies; (3) associations founded for the purpose of undertaking economic activities; (4) foundations which are legal entities provided their purpose is to transact business; (5) foundations, institutions, and legal entities of public law *(Körperschaften des öffentlichen Rechts)* provided these are banks, insurance companies, or registered savings and loan associations.

The law also provides for some exemptions, notably businesses in liquidation, which are, however, unimportant because either they are covered by other laws or occur infrequently.

[6] This is designed to include certain mutual insurance companies.
[7] These criteria are met presently by nine large privately owned banks, *Bundestagsdrucksache 296*:68, p. 16.

2. Special Regulations for Noncorporations

Enterprises publishing financial statements and accompanying reports are required to follow the notes of Sections 149, 151, 152, 157, and 158 of the corporate law. Because of this requirement, several special rules were incorporated into the new law to give full consideration to the special problems of firms other than corporations. Section 5 requires that a special balance sheet form be used for specific industries which go beyond corporate law requirements. This is applicable to banks and transportation companies.

Valuation standards set forth in the corporation law (Sections 153–56) need not be followed; instead, accepted accounting principles *(Grundsaetze ordnungsmaessiger Buchfuehrung)* might be used if special regulations do not exist for this particular type of business. Accepted accounting principles as commonly understood, yet nowhere codified, permit the creation of hidden reserves for certain businesses.[8] In spite of this rather lenient and nonrestrictive clause, Biener[9] admits that the corporate regulations could be construed to reflect properly today's generally accepted accounting principles and therefore might be applicable. Regardless of the resolution of this question, for all practical purposes it appears to be against the best interest of any large business to accumulate too large an amount of hidden reserves; such practices are not accepted internationally nor can a business in the long run afford to understate grossly its financial position if it wishes to avoid economic repercussions. Nevertheless, it should be emphasized that the valuation requirements appear to be both insufficient and unclear, and might possibly defeat the purpose of the law.

To minimize inequities for partnerships and privately owned business and at the same time to protect the interests of individual owners, such firms need not publish profit and loss statements if they include instead a specified appendix to the balance sheet. As a minimum requirement this appendix must contain information about:

1. Sales revenues in accordance with Section 158, of the corporation law, requiring gross sales to be shown;
2. Income transferred from affiliates;
3. Wages and salaries (legal and voluntary) social expenditures and pension and relief payments;

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[8] See *Bundestagsdrucksache 4416.*

[9] H. Biener, "Gesetz über die Rechnungslegung von bestimmten Unternehmen und Konzernen (Publizitätsgesetz)," *Der Betriebsberater 24* (September 20, 1969): 1098.

4. Valuation and depreciation methods applied, including major changes; and
5. Number of employees.

Privately owned business and partnerships need not disclose private property nor expenses and revenues which are not business related. This elimination undoubtedly will create problems; at the same time it cannot be considered an inequity. In case of doubt, according to Biener,[10] the protection of private interest shall take precedence even over public interest when deciding whether to include assets in the business property.

To encourage voluntary use of the corporate profit and loss statement format, the new law permits the inclusion of taxes under "other expenses" for all privately owned businesses and partnerships; this clause disguises this highly informative item which must otherwise be stated. This privilege clearly demonstrates the intent of the legislature to generate a high degree of compliance with available standardized accounting rules without creating potentially embarrassing situations for individual businessmen.

Finally, to avoid disclosure beyond the requirements presently existing for corporations, Section 9 grants a privilege to consolidate distribution of profits to partners, withdrawals, unallocated surplus, and loss carry-forwards into one equity capital account for all partners, thus avoiding disclosure of individual partners' accounts and their fluctuations throughout the fiscal year. This procedure combined with the privilege of not publishing the profit and loss statement (if the balance sheet appendix is used instead) results in not showing total annual profits; these can only be determined by a comparison of equity accounts for two periods. This may be regarded as a rather dubious disclosure regulation; it does not, however, violate the spirit of the law to protect the public.

The scope of disclosure is widened by the accompanying report, which must contain details about the firm's development, business situation, and events which occurred after the closing date, as well as such pertinent facts as valuation methods and capital relationships to other firms. The minimum contents of the report are based on Section 160 of the corporation law;[11] only those parts are omitted which specifically pertain to corporations.

[10] Ibid., p. 1099.

[11] *Bundestagsdrucksache 3197,* p. 28, stresses that centralized management can encompass almost any form from informal collaboration to formalized centralization.

The complete set of financial reports (balance sheet, profit and loss statement or appendix to balance sheet and accompanying report) have to be audited and certified by a duly authorized public accountant *(Wirtschaftspruefer* or *Genossenschaftspruefer).* The audit is to be performed in accordance with auditing requirements as set forth in the corporation law or other specific laws (as in the case of banks, insurance companies, and building associations). Audited financial reports are filed with the local court where the firm is registered and must be published in the government bulletin *(Bundesanzeiger),* even though publication in other papers may already be required by the statutes of the firm.

Special Regulations for Business Combinations

Section 11 of the new law extends the requirement to publish financial statements to business combinations, groups of legally independent firms which are economically dependent on a mother company or each other through contractural obligations, capital ownership, or centralized management. Again, as in the case of the businessman who owns several firms, the idea is to enforce disclosure by entities which, regardless of their legal structure, represent an economic unit and can act as such. Combinations which meet two of three criteria in three consecutive years are governed by the law. The criteria, similar to the ones used for individual firms, are:

1. A consolidated balance sheet with total assets equalling or exceeding 125 million DM;
2. Sales revenues with the outside (not among affiliated companies) equalling or exceeding 250 million DM;
3. All affiliates located within the Federal Republic of Germany having employed an average annual work force of 5,000 or more.

If the headquarters of the combined firm is located abroad, the domestic part of the combine meeting the above criteria must publicize financial statements using as a consolidation basis the domestic affiliate which is closest to the dominating foreign company.

The beginning and end of the combination's obligation to publish financial statements are defined in the same way as all other firms subject to this law. If the combination is owned by a private enterprise or a partnership, the special privilege concerning exclusion of private property and omission of the profit and loss statement are applicable (if a balance sheet appendix is used for certain data).

Since the new law requires publication of financial statements by

all business combinations, cases may arise in which the parent company is a privately owned business or partnership and must publish, and one or more affiliates are corporations which are also subject to financial statement publication requirements. To avoid possible duplication, affiliates may not be required to publish if the parent company publishes consolidated financial statements and reports and at the same time files a declaration assuming full liability for all amounts owed by its affiliates.

All provisions of the new law are enforceable. Penalties for false representation in relation to the public or the auditors, include imprisonment to three years and fines.

The first financial statements to be published under this law will be the ones of the first closing date after December 31, 1970. This means that in most cases financial statements as of December 31, 1971, must be published.

IV. ACCOUNTING IMPLICATIONS

The above regulations represent the most important parts of the new law and convey its general principles and basic ideas; many more details require thorough discussion because of the language used in the new law and some references to the corporation law which are not always entirely clear. These details have been omitted because of their minor importance. In spite of these omissions, accounting implications can be summarized as they appear at this time, notwithstanding possible insights which may be gained after the law has been applied for some time.

The law recognizes a general need to establish accountability requirements for all large business enterprises. Despite disagreement concerning the adequacy of size determination, this law represents a general affirmation of the public information function of financial statements. The frequent allegation that accounting information is too technical in nature to be generally understood has obviously been dismissed by the legislature. If the rather specialized nature of financial statements is accepted, the publication of financial data in conjunction with its interpretation by the financial press may be viewed as adequately informing the public, provided all data comply with minimum standards.

The extension of accountability requirements to noncorporations eliminates the discriminatory application of certain accounting regulations to corporations only. It may be argued, however, that this discrimination now exists with respect to size. This appears not to be fully justified since the law is in accord with current ideas concerning social

responsibility of businessmen and large businesses in particular. If such a responsibility is assumed to exist, then there exists also the necessity to assure some degree of compliance with obligations to society. Enforcing accounting and financial reporting requirements may therefore serve the purpose of avoiding more rigorous controls.

The impact on the accounting profession by increased work loads does not need to be considered at this time, since it is unimportant. The law, however, recognizes and reaffirms the importance of the social function of the accounting profession (that is, applying, as a public trustee, auditing criteria which are subject to change over time, but which should be uniformly used). This function has even been extended, since the arguments used for passage of the law place more emphasis on informing the public than reiterating the old arguments of safeguarding those with capital interests, as used in the case of corporate accounting and auditing regulations.

The law, though not intended for this purpose, will probably revive the discussion about the scope of the attest function of public accountants, because problems such as the separation of privately held and business property require recasting the content and meaning of the auditor's certification. To lend credibility to the auditor's opinion, it appears necessary to allow for specific qualifications which will not be interpreted at the same time to be damaging to the business firm.

By referring to principles of accounting (Grundsaetze ordnungsmaessiger Buchfuehrung) which are nowhere summarized or codified as a substitute for legal valuation requirements, the responsibility of the profession to generate and administer such principles is reemphasized. The proper discharge of the implied social information function may well require an adjustment of accounting principles over time. Through this added duty, the position of the profession in Germany might eventually be changed from one of complying with existing laws to one of developing principles, in a manner similar to the Accounting Principles Board of the American Institute of Certified Public Accountants in the United States. This, however, will be only a long-range result.

The careful avoidance of legal requirements concerning minimum valuation, combined with the emphasis on information of the general public, might furthermore result in the need for minimum valuation standards which are presently not recognized. This applies not only to the present problem of valuation under inflationary conditions but might well be extended to standards for other information directed to a better assessment of future developments.

Certain weaknesses of the law (for instance, the provision requiring business combines to publish consolidated statements which need not be accompanied by statements of individual member firms) will eventually reopen the question concerning the quantity of detail necessary to inform the public sufficiently. Moreover, the problem of business combines seems to be inadequately solved, since a combination is defined on the basis of the existence of a centralized management. Such a fact cannot be established objectively because there are varying degrees in which influence may be exerted apart from the verifiable fact of capital ownership. Even the provision to establish the existence of centralized management through a court-nominated independent auditor (Section 12) is inconclusive; such an auditor may be forced to submit negative findings because of lack of tangible evidence.[12] This problem is further complicated by the provision that combinations are exempt from the requirement to publish financial statements (Section 11) if they are controlled by a privately owned enterprise or a partnership and exist solely for the purpose of managing the property of the owner. It might be impossible to distinguish such a combination from one whose purpose is the functioning as a business enterprise while exerting only indirect influence on current decisions.

In spite of weaknesses, the new law must be regarded as a major step in the acknowledgment of the social importance of the accounting function and the accounting profession in Germany. In its present form, it might also serve as a vehicle for swifter responses in future adaptations of accounting principles to social changes. Whether the law will have direct implications for the wider area of the European Economic Community remains to be seen. Attempts to unify accounting principles and practice in the Community, will, however, have to take this *fait accompli* into consideration.

APPENDIX. APPLICABLE SECTIONS OF THE GERMAN CORPORATION LAW[13]

Section 149

Contents of the annual financial statements:

(1) The annual financial statements shall conform to proper accounting principles. They shall be clear and well set out and give as true a view of the association's financial position and of its operating results as is possible pursuant to the valuation provisions.

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[12] This opinion is shared by H. Prühs, "Die Konzernrechnungslegung nach dem (Publizitätsgesetz)," *Der Betrieb*, Nr. *31*:32 (1969): 1386.

[13] R. Mueller and E. G. Galbraith, *The German Stock Corporation Law* (Frankfurt, Fritz Knapp Verlag, 1966), pp. 183–209.

(2) To the extent it is not otherwise provided in the following provisions, the provisions of the fourth division of book one of the Commercial Code regarding commercial records are to be applied.

Section 151

Classification in the annual balance sheet:

(1) Unless the trade requires a different classification which must be equivalent, and without prejudice to an additional classification, the following captions must be shown separately in the annual balance sheet:

On the assets side:

I. Unpaid contributions to the share capital; of those have been called:

II. Fixed and financial assets:

A. Fixed and intangible assets:

1. real estate and equivalent real estate rights with office, factory and other buildings;
2. real estate and equivalent real estate rights with dwelling structures;
3. real estate and equivalent real estate rights without buildings;
4. buildings on another's real estate which do not belong to number 1 or 2;
5. machinery and installations;
6. business and office equipment;
7. construction in progress and advance payments for fixed assets;
8. concessions, industrial property rights and similar rights as well as licenses of such rights.

B. Financial assets:

1. participations;
2. investment in securities of the fixed or financial assets not belonging to number 1;
3. loans for a term of at least four years; of those secured by mortgages:

III. Current assets:

A. Inventories:

1. raw materials, auxiliary materials and supplies;
2. work in process;
3. finished products, merchandise.

B. Other current assets:

1. advances paid to the extent they are not classified under II A number 7;
2. accounts receivable for sales and services; of those with a remaining term of more than one year:
3. notes receivable, of those discountable with the Federal Reserve Bank:
4. cheques;

5. cash on hand and at Federal Reserve Bank and post cheque accounts;
6. cash at banks;
7. securities not classified under numbers 3, 4, 8, or 9 nor under II B;
8. its own shares with a note of their nominal amount;
9. participations in a dominating (ordinary) corporation or in an (ordinary) corporation holding the majority or in a mining corporation with a note of their nominal amount, for mining shares of their number;
10. accounts receivable from connected enterprises;
11. accounts receivable from credits which belong
    a) subsection 89,
    b) subsection 115;
12. other assets.

IV. Deferred charges.

V. Accumulated losses.

On the liabilities side:

I. Share capital.

II. Disclosed reserves:
1. legal reserve;
2. other reserves (free reserves).

III. Provisions for diminution in value.

IV. Provisions for accrued liabilities:
1. provisions for pensions;
2. other accrued liabilities.

V. Liabilities for a term of at least four years:
1. loans, of those secured by mortgages:
2. liabilities towards banks, of those secured by mortgages;
3. other liabilities, of those secured by mortgages:

Of numbers 1 to 3 due before the expiration of four years:

VI. Other liabilities:
1. accounts payable for purchases and services;
2. liabilities from accepted drafts and the issue of promissory notes;
3. liabilities towards banks, to the extent they are not classified under V;
4. advance payments received;
5. liabilities towards connected enterprises;
6. other liabilities.

VII. Deferred income.

VIII. Retained earnings.

(2) If items pertaining to a caption do not exist in the association, then the caption need not be stated.

(3) If an item pertains to several captions, then its pertaining also to other

captions shall be noted under the caption under which it is shown, if this is necessary for the preparation of a clear and well set out annual balance sheet. Accounts receivable from and liabilities towards connected enterprises shall ordinarily be shown as such; if they are shown under other captions their characteristics must be noted. Its own shares and participations in a dominating (ordinary) corporation or in an (ordinary) corporation holding the majority or in a mining corporation may not be shown under other captions.

(4) Provisions for depreciation, diminution in value, accrued liabilities and credits to special captions with reserves in part shall already be made in the annual balance sheet. The same applies to withdrawals from disclosed reserves as well as to credits to disclosed reserves which must be made pursuant to the law or to the articles of association or which are made by the board of management and the supervisory board on the basis of section 58, paragraph 2. The excess of the assets side over the liabilities side (retained earnings) or the excess of the liabilities side over the assets side (accumulated losses) shall be shown undivided and separately at the end of the annual balance sheet.

(5) Unless they must be shown on the liabilities side there shall be noted separately in their full amounts in the annual balance sheet:

1. liabilities from the negotiation and transfer of promissory notes and drafts;
2. liabilities from sureties, and guarantees of promissory notes and drafts and cheques;
3. liabilities from warranty contracts;
4. liabilities from the granting of collateral security for another's liabilities.

They shall be noted even if they are balanced by equivalent claims of recourse. If the liability or responsibility exists towards connected enterprises, then the notes shall disclose this and state the amount.

Section 152

Provisions for individual captions of the annual balance sheet:

(1) Under fixed and financial assets there shall only be shown those items which at the date of the closing balance sheet are intended to serve the business of the association permanently. Additions and disposals, appreciation, depreciation provided for the fiscal year as well as reclassifications shall be shown separately against each caption of fixed and financial assets.

(2) There shall be considered as participations in case of doubt participations in an (ordinary) corporation, the nominal amounts of which equal the aggregate of one-fourth of the nominal capital of a corporation as well as shares of a mining corporation, the number of which equals the aggregate of one-fourth of the shares of that mining corporation.

(3) Of the share capital the aggregate nominal amount of the shares of each class shall be stated separately. The nominal amount of conditional capital shall be noted. If shares with multiple voting rights exist, then the aggregate number of the votes of the shares with multiple voting rights and of the other shares shall be noted against the share capital.

(4) Against the disclosed reserves shall be stated separately:

1. the amounts which the shareholders' meeting has transferred from retained earnings of the previous year,
2. the amounts which are appropriated out of the profit for the fiscal year,
3. the amounts which are withdrawn for the fiscal year.

(5) If items are shown on the liabilities side which are only taxed under the provisions of the tax law at the time of their release, then these items shall be shown separately from disclosed reserves with a note of the provisions pursuant to which they have been formed on the liabilities side under II a, special captions containing reserves in part.

(6) Provisions for diminution in value may only be made in respect of fixed assets, participations and investments in securities of the financial assets and as global provisions for the general credit risk in respect of accounts receivable. The provisions for diminution in value pertaining to the individual captions shall be shown separately in a classification corresponding to paragraph 1, sentence 2, and the global provisions shall be shown as "global provisions for diminution in value of accounts receivable."

(7) Provisions for accrued liabilities may only be made for uncertain liabilities and for impending losses from uncompleted business. Additional provisions for accrued liabilities may be made for:

1. costs of maintenance or reinstatement omitted during the fiscal year which are expended in the following fiscal year;
2. warranties which are performed without legal obligation; these provisions shall be shown separately with a detailed note of their purpose. Provisions for accrued liabilities may not be made for other purposes. Under provision for "pensions" there shall be shown the provision for current pensions and entitlements to future pensions.

(8) Accounts receivable may not be set off against liabilities, unbilled costs may not be set off against advance payments, real estate rights may not be set off against real estate charges. Reserves, provisions for diminution in value and provisions for accrued liabilities may not be shown as liabilities.

(9) As deferred charges or income there may only be shown:

1. on the assets side expenditure incurred before the closing date to the extent it constitutes expense for a definite period after this date,
2. on the liabilities side income obtained before the closing date to the extent it constitutes income for a definite period after this date.

Section 157

Classification in the profit and loss statement:

(1) Unless the trade requires a different classification which must be equivalent, and without prejudice to additional subclassification, the following captions must be shown separately in the profit and loss statement in reducing balance form:

1. proceeds from turnover ________
2. increase or decrease of the inventories of finished products and work in process ________ ________

3. other capitalized own performance
4. aggregate performance
5. cost of raw, auxiliary materials and of supplies as well as of purchased merchandise
6. gross profit/gross costs
7. income from profit pools and contracts to transfer profits wholly or partly
8. income from participations
9. income from other financial assets
10. other interest and similar income
11. income from disposals of fixed and financial assets and from appreciation to fixed and financial assets
12. income from a decrease in the global provisions for diminution in value of accounts receivable
13. income from the release of provisions for accrued liabilities
14. other income of this extraordinary
15. income from contracts to assume losses

16. wages and salaries
17. social security dues
18. old age relief and social aid costs
19. depreciation and provisions for diminution in value of fixed assets and intangible assets
20. depreciation and provisions for diminution in value of financial assets except the amount included in the global provision for diminution in value of accounts receivable
21. losses from deterioration of value or from disposals of current assets except inventories (section 151, paragraph 1 assets side III B) and global provisions for diminution in value of accounts receivable

22. losses from disposals of fixed and financial assets
23. interest and similar expenses
24. taxes
    a) on income, on yield and on net assets
    b) other
25. expenses resulting from contracts to assume losses
26. other expenses
27. profits transferred in accordance with profit pools and contracts to transfer profits wholly or partly
28. profit for the year/loss for the year
29. profit carried forward or loss carried forward from the previous year
30. withdrawals from disclosed reserves
    a) from the legal reserve
    b) from free reserves
31. transfers from the profit for the year to disclosed reserves
    a) to the legal reserve
    b) to free reserves
32. retained earnings/accumulated losses

(2) If expenses or income pertaining to a caption are not applicable to the association, then the caption need not be shown.

(3) If expenses or income are shown under a caption different from the one under which were shown expenses or income of the same kind in the profit and loss statement of the previous year, then this shall be indicated in the profit and loss statement with a note of the relative amount.

(4) If at the closing date no shares of the association are admitted for official trading on a German stock exchange or included in the regulated unofficial trading and if the admission of shares for official trading on a German stock exchange has also not been applied for, then the captions sub paragraph 1, numbers 1–5 need not be shown separately if:

1. the balance sheet totals do not exceed three million Deutsche Mark, or
2. the association is an association held by a family and the balance sheet totals do not exceed ten million Deutsche Mark; as associations held by a family are considered those stock corporations the shareholder of which is a single natural person or the shareholders of which are natural persons

who are related or related by marriage with each other in the meaning of section 10, numbers 2-5 of the Tax Adjustment Law of October 16, 1934 (Legal Gazette I p. 925).

If an association held by a family makes use of the benefit pursuant to sentence 1, then every shareholder may request that he be presented in the shareholders' meeting dealing with the annual financial statements with a profit and loss statement in the form which it would have without the application of sentence 1.

Section 158

Provisions for individual captions of the profit and loss statement:

(1) Enterprises whose trade is that of the production or manufacture of objects or the sale of merchandise shall show as proceeds from turnover only the proceeds from the production, manufacture or sale of these objects or merchandise.

(2) The proceeds from turnover shall be shown after deduction of price rebates and refunds; other amounts may not be deducted.

(3) A compensation payable to outside shareholders under contract shall be deducted from the income from a contract to transfer profits wholly or partly; if it exceeds the income, then the excess shall be shown under expense resulting from contracts to assume losses (section 157, paragraph 1, number 25). Other amounts may not be deducted.

(4) As taxes shall be shown the amounts which the association has to pay as tax debtor.

(5) Credits to the legal reserve pursuant to section 150, paragraph 2, numbers 2–4 or section 237, paragraph 5 are not to be shown as amounts which must be credited to the legal reserve out of the profit for the year pursuant to the law or the articles of association.

(6) Income from the release of special captions with reserve in part (section 152, paragraph 5) shall be shown separately in a caption to be inserted between captions 13 and 14, credits to special captions with reserve in part shall be shown between captions 25 and 26.

Section 160

Contents of the report of the management:

(1) The report of the management shall set forth the course of the business and the situation of the association. Events of special significance which have occurred after the end of the fiscal year shall also be reported.

(2) Moreover, the annual financial statements shall be explained in the report of the management. The methods of valuation and depreciation shall thereby be stated as fully as needed to provide as true a view as possible of the association's financial position and operating results; reference may be made to the statement of these methods in the report of the management for an earlier fiscal year which is not earlier than the third preceding fiscal year. Every report of the management shall state, in respect of the individual captions of fixed and financial assets, the provisions for depreciation and diminution in value which have been made for additions during the fiscal

year. The report of the management shall also discuss the deviations of the annual financial statements from the last annual financial statements which affect the comparability with the last annual financial statements, especially substantial changes in the valuation and depreciation methods including extraordinary provisions for depreciation or diminution in value; details need not be stated thereby.

(3) In every report of the management statements shall be made regarding:

7. liabilities not evident from the annual balance sheet including the granting of security for its own liabilities;
8. the aggregate compensation (salaries, profit sharing, reimbursement of expenses, insurance premiums, commissions and fringe benefits of any kind) of the members of the board of management, of the supervisory board and of an advisory council or similar body, in each case separately by stating the individual body. The aggregate compensation shall also include compensation which is not paid out but converted into claims of another nature or applied to the increase of other claims. Apart from the compensation for the fiscal year, there is to be stated the additional compensation which was granted in the fiscal year but was not previously stated in any report of the management. If members of the board of management of the association receive compensation from connected enterprises for their services for the association or for their services as legal representatives or employees of the connected enterprises, then this compensation shall be stated separately;
9. the aggregate compensation (indemnities, pensions, compensation to surviving dependents and consideration of similar nature) of former members of the board of management and their surviving dependents. Number 8, sentences 2 and 3 apply accordingly. If former members of the board of management of the association or their surviving dependents also receive indemnities or pensions from connected enterprises, then this compensation shall be stated separately;
10. the legal and business relations to connected enterprises with domestic domicile, in addition statements regarding business events at these enterprises which may have a substantial influence on the association's situation;
11. the existence of a participation in the association which has been communicated to it pursuant to section 20, paragraphs 1 or 4; thereby shall be stated to whom the participation belongs and whether or not it exceeds one-fourth of the aggregate shares of the association or constitutes the holding of a majority (section 16, paragraph 1).

(4) The report shall accord with the principles of conscientious and faithful accounting. Reporting must be omitted to the extent required for the welfare of the Federal Republic of Germany or of one of its states. In reporting pursuant to paragraph 3, numbers 7 and 10 details need not be stated to the extent it may be expected by applying a reasonable business judgment that considerable disadvantages may arise from the statements to the association or to a connected enterprise. If statements are not made, pursuant to sentence 3, then this shall be indicated in the report of the management by reference to the required number that use has been made of the protective clause pursuant to sentence 3, for statements under this number.

Financial Disclosure Patterns in Four European Countries

ANITA I. TYRA*

Disclosure in annual reports of European companies is frequently thought of as inferior to financial disclosures made by U.S. corporations. A collateral charge is also sometimes advanced that the capital markets in Europe are underdeveloped because of inadequate corporate financial disclosure. It is also alleged that poor European financial disclosure may result from certain shortcomings in professional accounting, and that these shortcomings are, in part, a result of companies legislation.

To determine whether factual evidence indicates that the above allegations are justified, the author studied selected points of corporate financial disclosure in annual reports published in West Germany, France, the Netherlands, and the United Kingdom. An important aspect of the study was to determine whether financial disclosure in these countries seems related to factors existing in the respective financial reporting environments and whether certain patterns of disclosure could be discerned. A *pattern,* for the purpose of the study, was considered to exist if financial disclosure in the annual reports inspected showed substantial similarities for a particular country and if disclosures were dominantly influenced by a single institutional factor prevalent in the financial reporting environment of that country.

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Three environmental factors were selected for examination and studied in some detail, namely, the capital market, companies law, and the accounting profession. Corporate financial disclosure was investigated with respect to fifteen items in the annual reports of fifteen companies domiciled in each of the four countries. The items selected were as follows:

1. Is a consolidated balance sheet prepared?
2. Is a consolidated income statement prepared?
3. Are consolidated practices explained?
4. Does the balance sheet conform to the model or statutory balance sheet?
5. Does the income statement conform to the model or statutory income statement?
6. Does the president's or directors' letter include items of financial information?
7. Are footnotes or explanatory comments in narrative form cross-referenced to financial statements?
8. Is a statistical five- to ten-year summary of financial data disclosed?
9. Is the valuation method for marketable securities disclosed?
10. Is the valuation method for inventory disclosed?
11. Is the valuation method for fixed assets disclosed?
12. Are depreciation methods disclosed?
13. Are net sales disclosed?
14. Is an auditor's certificate shown?
15. Does the audit certificate disclose which part of the annual report was audited?

The names of companies whose annual reports were examined are shown in the appendix. The findings and the conclusions from this study for each of the four countries are presented in the following sections.

WEST GERMANY

The German capital market is much more active in direct loan transactions than in the issue of securities. Moreover, the securities market is dominated by issues of public authorities and various types of financial institutions. Corporate securities issues play a relatively minor role in the total German capital market.

Significantly, a large proportion of new corporate securities is sold to financial institutions rather than to private investors. Private stock

ownership in West Germany is small, amounting to only approximately 5 percent of the population. This compares to approximately 13 percent in the United States. Among institutional investors, the powerful position of German banks is particularly striking. With few exceptions, banks alone are members of German stock exchanges and the banks, therefore, hold a monopoly in securities trading and stock exchange management. In addition, banks tend to be vertically integrated so that substantial power is vested in a small number of banks within the total banking structure.

Until very recently, German banks were allowed to cast proxy votes for stockholders whose shares the banks held in safekeeping.[1] Thus, bankers could cast votes for shares owned by their customers, as well as shares held in their own portfolios. This gave them considerable power. As a result, banks were very frequently able to place their officers on corporate boards of directors. One high ranking banking official in West Germany was the director of more than two dozen large corporations at the same moment.

As insiders, bankers have available to them all financial records and documents produced within the corporate enterprise and therefore have little need for the usual financial disclosures found in annual reports. Since German bankers also act as stockbrokers, they may be expected to give their clients relevant corporate financial information. The small shareholder in Germany may be assumed to seek the advice of his stockbroker, who is also his banker, in the same way as an American investor might consult his stockbroker. Thus, the typical German stock investor tends to rely upon information received from his banker rather than upon the financial disclosures provided by annual reports. The relationship of the capital market to corporate financial disclosure in annual reports of German companies is not a particularly strong one.

The relationship of the accounting profession in Germany to corporate financial disclosure is determined primarily by corporate statutes. Wirtschaftspruefer (WP), as auditors, are primarily concerned with fulfilling the duties imposed upon them by the law. This is evident from the many articles on financial disclosure published in the official journal of the Institute of Wirtschaftspruefer. These articles stress, in almost all cases, the interpretation of the Companies Law with respect to disclosure rather than financial disclosure per se.

Audit certificates also serve the objectives of the Companies Law. In

[1] This practice has been prohibited since 1965 and the banks now must ask their customers for voting instructions.

them, the WP attests to the completion of his official duties as statutory auditor. The key statement of the certificate is that the law — and its disclosure requirements — have been satisfied. The WP, however, does not act solely as a statutory auditor but has succeeded in combining his semiofficial function with professional services rendered to his clients. This is evident from the customary preparation of detailed audit reports to management which are not available to shareholders.

The semiofficial function and the independent position of the WP, however, always take precedence over obligations to management. The WP's position as an independent auditor is enhanced by professional independence rules which are quite strict and, furthermore, by his oath in which the WP swears to a governmental body that he will furnish impartial reports and opinions. Thus, it may be concluded that the relationship of the accounting profession to financial disclosure in annual reports is dominated by provisions of corporate law.

A study of fifteen annual reports shows a definite pattern of financial disclosure. All, or substantially all, companies prepare consolidated balance sheets and income statements which conform to the 1965 statutes disclose valuation methods for inventory and fixed assets, disclose depreciation methods, include financial data in the narrative sections of the annual reports as required by Companies Law, and include the audit certificate in the annual report.

There is almost complete uniformity in the lack of an explanation of consolidation practices, and the scope of the audit is not stated. A great majority of the companies do not disclose the valuation basis for intangible assets. Two points not covered by statute, the inclusion of a five- to ten-year summary of financial data and the disclosure of the method for valuation of marketable securities, show a great diversity among reports.

All reports examined conform substantially to the requirements of the 1965 statute with the exception of some abridged annual reports published in English. On the whole, financial disclosure in the reports is excellent. This is especially true if the reader has some familiarity with German commercial law and accounting practices. A major disappointment in disclosure is the tradition of stating fixed assets at net value only.

Since German statutes are quite specific concerning financial reporting and disclosure in annual reports particularly with respect to the financial statements, notes elaborating on statement items are generally absent. Footnotes are unnecessary because disclosures are made directly in the balance sheet and income statement as well as the separate

management report. The latter is an integral part of the financial statements and is covered by the statutory auditor's certificate. Use of the management report for financial reporting is quite legalistic and based closely on statutes.

The findings of the study show that the pattern of corporate financial disclosure in Germany is primarily legalistic and determined largely by provisions contained in German corporate law.

FRANCE

French companies, in general, must look to the capital market to obtain needed funds. As is true in the other three countries, most of these funds are supplied in the form of direct loans. The French Republic's Central Plan regulates the granting of long-term and medium-term loans by various financial institutions so that the funds are channeled into those activities approved by the Plan. To some extent, issues of shares are also controlled by the government planners.

The sale of new corporate bonds has declined in recent years and the sale of shares has shown only a moderate increase. Securities issues do not play a major part in the capital-raising activities of French corporations, and "full" financial disclosure in annual reports is not a necessary condition to secure capital. Creditors, because they must be able to justify the granting of loans in conformance with the goals of the Central Plan, need more information than is disclosed in annual reports. They may ask for, and receive, any additional points of financial and other information they deem necessary.

Whether more corporate securities could or would have been issued in France if financial disclosure were better is a question which cannot be answered definitively. There are some indications that the French government feels that its securities market can be stimulated with better financial reporting. At the present time, however, there is little evidence to indicate that financial disclosures in the annual reports of French corporations are made primarily to attract capital.

The accounting profession exerts a minor influence on financial disclosure in annual reports of French companies. The *expert comptable,* considered the French counterpart of the certified public accountant in the United States, is primarily occupied with rendering management services, and statutory audits are performed by semiofficials who are not necessarily professional accountants. In cases where *experts comptables* choose to serve as statutory auditors, their role as semiofficials outweighs their role as professional accountants. Thus, in France the

relationship between the accounting profession and financial disclosure is weak.

The relationship between legislation and financial disclosure, however, is quite important. Legal requirements for financial disclosure are not a part of the French Companies Law of 1966 nor the Commercial Code of 1867, but are contained in the Uniform Plan of Accounts (Plan Comptable General). Compliance with the Plan is not yet compulsory for all French companies, but will probably be within the near future. At present, *most* industries and firms are subject to its provisions.

The objective of the Plan Comptable is to bring about uniformity in financial reporting. The Plan is not intended to establish minimum disclosure requirements, but rather to insure a greater comparability of financial data of different enterprises as well as to provide more convenient collection of reliable national income statistics for planning purposes. Strict adherence to all of the Plan's provisions, therefore, is very important in fulfilling its objective.

The examination of fifteen French annual reports revealed that there is almost complete uniformity of disclosure among companies. Thirteen of fifteen did not present consolidated balance sheets and consolidated income statements. One of the two companies which reported on a consolidated basis gives explanations of its consolidation practices. For all of the fifteen companies, the balance sheets and income statements conformed in major respects to statutory financial statements.

Complete uniformity was also found in the fact that the annual reports present financial information not only in the financial statements proper, but also in the directors' letter or management report. The same uniformity held true for the lack of cross-referencing between narrative parts and financial statements. Five- to ten-year statistical summaries of financial data were included in the annual reports of only three companies. None of the fifteen companies divulged information on valuation methods for marketable securities, inventory, or fixed assets. Only one corporation disclosed its depreciation methods.

The cited disclosures or lack of disclosures were substantially in conformance with the provisions of the Uniform Plan of Accounts. Disclosure of net sales, however, showed great diversity among companies. Ten of fifteen disclosed their annual sales and five did not. Audit certificates were included in the reports of all fifteen companies; in all cases, the certificate indicated which parts of the report have been audited.

The study found that financial disclosure in France is largely deter-

mined by legislation. The resulting pattern of financial disclosure in annual reports of French companies was one of conformity.

THE NETHERLANDS

In the Netherlands, the pattern of corporate financial disclosure does not seem to be greatly influenced by the Dutch capital market. Basically, a situation similar to that of the German capital market exists, in that direct loans are a far more important means of raising funds than issues of securities. Loans are obtained as a result of negotiations between the supplier and borrower of capital. In such negotiations, the lender is in a position to obtain extensive and detailed financial information, and thus is not dependent on disclosures made in annual reports.

Capital raised in the Netherlands by sale of securities is obtained mainly from financial institutions and, to a very small extent, from private individuals. It is a safe assumption that the large institutional investors gain inside knowledge of the financial position and results of operations of a corporation which is not available to the small shareholders. Since corporations obtain only small sums from the sale of securities to private investors, full financial disclosure in annual reports is not a requirement for attracting capital from domestic sources.

For certain giant corporations domiciled in the Netherlands, the Dutch capital market is too small to provide all the capital required for continued growth. These corporations, therefore, must look for sources of funds in international markets where they compete with corporations applying high financial disclosure standards. Thus, companies, such as Philips or Royal Dutch Petroleum, have become leaders in their own country, as well as abroad, in publishing annual reports which are outstanding in the extent and quality of financial disclosure.

We may safely assume that the accounting profession in Holland is, at least partially, responsible for the high quality of financial reporting by the Dutch companies whose annual reports were examined in the study. One important observation with respect to the relationship between the Dutch accounting profession and financial disclosure is that there are no official pronouncements by the Netherlands Institute of Registered Accountants (N.I.v.R.A.) regarding financial reporting and disclosure. The only publication containing specific recommendations for disclosures in financial statements is a report issued by the Council of Netherlands Employers' Association.

In addition, no specific corporate statutes have ever been passed in

the Netherlands. The Dutch Commercial Code deals with certain corporate legal responsibilities. The Code's provisions concerning bookkeeping, accounting records, audits, and financial reporting are, however, not very comprehensive. The Dutch auditor, therefore, is not in a position to refer to authoritative recommendations on disclosure contained in statutes or issued by the Netherlands Institute. He is solely dependent upon the strength of his argument for sound financial reporting and must convince management that full disclosure is in a corporation's best interests.

From the Dutch annual reports examined, a distinct pattern of financial disclosure became apparent. All fifteen companies prepared consolidated balance sheets and income statements. Ten of fifteen companies explained the consolidation practices they follow. All president's or directors' letters included in the annual reports contained items of a financial nature. Cross-references between such information and the financial statements were not provided by any of the fifteen companies. Eleven companies showed five- or ten-year statistical summaries in their annual reports. Nine companies disclosed their valuation methods for marketable securities. Valuation methods for inventory were disclosed by all corporations. The basis used for valuing fixed assets was revealed by thirteen companies. Eight companies disclosed their depreciation methods. An annual sales figure was shown by eleven companies. The other four companies began their income statements with a gross profit figure. All companies except one for which only a condensed annual report could be obtained, included an auditor's certificate in their annual reports. Of the fourteen audit reports, thirteen stated which parts of the annual report had been audited. The extent to which Dutch annual reports were audited was remarkable since Dutch corporations are not legally required to be audited, and even stock exchange requirements for audits of financial statements may be circumvented.

In conclusion, the pattern of financial disclosure in the Netherlands is shaped, to a very significant extent, by professional accountants. These accountants are guided not only by the rules for professional activities issued by the Netherlands Institute but also, particularly with respect to financial disclosure, by recommendations of organized business leaders.

In addition, disclosure is also affected by the financial needs of the reporting corporation and, therefore, the Dutch pattern of financial disclosure may be called entrepreneurial.

UNITED KINGDOM

In the United Kingdom, private enterprises engage at a relatively high rate in self-financing. Funds raised by corporations in the capital market may be in the form of direct loans or securities issues. The amounts raised through direct loans have, in recent years, been approximately twice as large as amounts raised through the sale of securities. Nevertheless, substantial amounts of new issues are sold on the London Stock Enchange and other British stock exchanges. Most of these issues are sold to institutional investors, such as pension funds, life insurance companies, and mutual funds. British banks do not make large investments in corporate securities. While the number of private investors has grown since World War II, private investors have recently become net sellers of securities. Private investment in securities takes place increasingly through mutual funds.

An important development in the United Kingdom has been the recent shift to debt financing by corporations. In 1965, for example, new issues of bonds were approximately five times as large as new issues of shares. This is significant because management of a portfolio consisting mostly of bonds is less complex than the management of a stock portfolio. Many of the complexities of securities analysis center on the prediction of the future profitability of the corporation and market prices of its shares. Bondholders, on the other hand, are much less concerned with forecasting profits and are more inclined to be satisfied with financial disclosures that permit them to draw conclusions about the safety of their investments and the expected promptness of interest payments rather than the return on investment. Consequently, it appears that the present economic forces in the capital markets of the United Kingdom do not exert a great deal of influence on corporate financial disclosure.

A study of the fifteen annual reports of United Kingdom companies indicates that all prepare consolidated balance sheets and income statements. Only two companies, however, explained their consolidation practices. Since the Companies Law does not contain statutory financial statements, the fifteen companies do not comply with any kind of model balance sheet or model income statement.

In all of the fifteen reports, comments made in either the directors' reports or the chairmen's letters included financial information. None of the fifteen companies cross-referenced these comments to the respective financial statements. Fourteen corporations provided a five- to ten-year statistical summary of financial information. Valuation methods for

marketable securities were revealed by eleven companies and fourteen companies disclosed their valuation methods for fixed assets. Of fifteen companies, three disclosed the depreciation methods they used. The amount of annual sales was disclosed in ten reports. All fifteen reports included an auditor's certificate showing which parts of the reports had been audited.

Many of the disclosures listed above exceed the disclosure requirements of the current Companies Law. This seems largely due to the efforts of professional accountants. Chartered accountants are authorized to perform a variety of accounting and advisory functions. Audits are among the most important professional activities of the chartered accountant. The performance of the audit function is facilitated by various pronouncements on audit standards and procedures issued by the three institutes of chartered accountants which exist in the United Kingdom. Specific financial reporting and disclosure requirements, however, are not detailed by professional accounting organizations but by the Companies Law.

While the British accounting profession has made substantial contributions to the quality of financial reporting, it presumably would not be equally influential concerning financial disclosure in corporate annual reports if it were deprived of the general framework and support established by the Companies Law. It is the Companies Law which requires audits for many companies, specifies the professional qualifications which must be possessed by an auditor, and contains detailed disclosure provisions.

The United Kingdom's Companies Law, more than any other single factor, influences disclosure practices in Britain. The fact that disclosure provisions are somewhat less specific than they are under German Companies Law and that British companies need not follow model financial statements causes the pattern of financial disclosure in the United Kingdom to be less legalistic than that pattern in West Germany.

SUMMARY AND CONCLUSIONS

The study reveals that the relationship of financial disclosure to capital markets seems to be significantly less than is generally suggested. Among possible explanations for the weakness of this relationship are (1) an increasing reliance of corporations on self-financing; (2) direct borrowing in which financial disclosures are made directly by the borrower to the lender who then has little need to rely on disclosures in annual reports; (3) concentration of investments by large institutions —

rather than private investors — which are often in a position to obtain inside information; (4) preference of private individuals to invest through intermediaries such as savings banks and mutual funds; and (5) a shift in some countries to new equity amounts by the issuance of bonds rather than shares.

The findings of the study establish that the relationship of financial disclosure to the accounting professions must be considered in conjunction with the respective national statutes. In West Germany, France, and the United Kingdom, the independent auditor receives considerable support from the provisions of local statutes in improving corporate financial disclosure in annual reports. In the Netherlands — which has no such statutes — the auditor must persuade management that benefits will accrue to the corporation as a result of better disclosures.

The pronouncements of professional organizations in the four countries are more concerned with auditing standards and procedures than with details of financial reporting and disclosure. Specific financial disclosure requirements are a part of legislation in West Germany, France, and the United Kingdom. In these countries the accounting professions are keenly interested and actively participating in the formulation of companies law.

The findings of the study indicate that individual patterns of financial disclosure are clearly discernible for each of the four countries. Furthermore, these patterns are related to their particular financial reporting environments. Based on the examination of the annual reports included in this study, the pattern of financial disclosure in West Germany is found to be legalistic in nature. The pattern of financial disclosure by French companies is one of uniformity. Dutch corporations' financial disclosure practices are influenced by the national accounting profession which, in turn, follows certain guidelines of reporting issued by Dutch employers groups. The individual needs of the reporting Dutch corporation are important for the extent to which financial disclosures are made. Therefore, the pattern of financial disclosure by Dutch companies may be said to be entrepreneurial. The British pattern of financial disclosure is legalistic but less so than that found in West Germany.

An important final conclusion from the study is that legislation exerts a much greater influence on corporate financial disclosure in the four countries studied rather than either their respective capital markets or accounting professions.

APPENDIX. NAMES OF COMPANIES

West Germany

Allgemeine Elektrizitaets-Gesellschaft AEG-Telefunken
Badische Anilin & Soda Fabrik AG (BASF)
Continental Gummi-Werke Aktiengesellschaft
Daimler-Benz Aktiengesellschaft
Farbenfabriken Bayer Aktiengesellschaft
Farbwerke Hoechst AG
Gelsenkirchener Bergwerks-Aktien-Gesellschaft (Gelsenberg)
Hibernia Aktiengesellschaft
Kloeckner-Humboldt-Deutz AG
Kloeckner-Werke AG
Linde Aktiengesellschaft
"Loewenbraeu"
Rheinische Stahlwerke
Saarbergwerke Aktiengesellschaft
Volkswagenwerk Aktiengesellschaft

France

L'Air Liquide
Société Anonyme André Citroën (Citroen)
CSF Compagnie Générale de Télégraphie sans Fil
Compagnie des Machines Bull
Compagnie Pechiney
Peugeot S.A.
Rhône Poulenc S.A.
Saint-Gobain
Schneider S.A.
Sovirel
Compagnie Française Thomson Houston-Hotchkiss Brandt
Total — Compagnie Française des Pétroles
Tréfimétaux
Union Sidérurgique de Nord et du l'Est de la France (Usinor)
de Wendel & Cie — S.A.

The Netherlands

Algemene Kunstzijde Unie N.V. (AKU)
N.V. Billiton Maatschappij
Heineken Brouwerijen Nederland N.V.
Koninklijke Zout-Organon N.V. (K.Z.O.)
KLM Royal Dutch Airlines
Wm. H. Mueller & Co.
Philips Gloeilampenfabrieken
Rhine-Schelde Engineers & Shipbuilders
Royal Dutch Petroleum Company
N. V. Rubberfabriek Vredestein
Schlumberger

Koninklijke Scholten-Honig N.V.
Thomassen & Crijver-Verblifa N.V.
Wilton-Fkjenoord-Bronswerk N.V.
Unilever Limited

United Kingdom

The Bowater Organization
British Aircraft Corporation Limited
British-American Tobacco Company (Limited)
British Insulated Callender's Cables Limited (BICC)
The British Petroleum Company Limited (BP)
Courtaulds
Coats Patons
The Dunlop Company Limited
Guest, Keen and Nettlefolds, Limited (GKN)
Hawker Siddeley Group Limited
Imperial Chemical Industries Limited (ICC)
The Imperial Tobacco Company (of Great Britain and Ireland), Limited
International Publishing Corporation Limited
Rolls-Royce Limited
Vickers Limited

Could Swedish Auditing Procedures Result in Greater Corporate Control for U. S. Stockholders?

ALBERT P. AMEISS*

The Spring 1968 issue of *The Price Waterhouse Review* reported on a sampling of "Questions Asked at Stockholder's Meetings." Heading the article was the following paragraph:

> Across the land, those who share in the ownership of great U.S. and world corporations have, as is their right, been questioning their managements on various aspects of managements' stewardship at annual stockholders' meetings.[1]

A sampling of such questions revealed concern for the protection of the stockholders' interests and a desire for greater involvement in corporate management. With respect to the companies' public accountants, stockholders wanted to know to whom the professional auditors reported, the degree of independence permitted in the audit engagement, and what the auditors were doing about conflict of interest situations such as those recently publicized.[2]

In June 1968, Francis M. Wheat, commissioner of the Securities and Exchange Commission, described the primary purpose of the Securities

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[1] "Questions Asked at Stockholders' Meetings," Spring 1968 issue of *The Price Waterhouse Review,* reprinted in *Journal of Accountancy 126* (October 1968), 63.

[2] Ibid.

Act of 1934 as that of affording protection to investors who bought or sold in the trading markets. The commissioner asked: (1) whether the disclosure requirements properly reflect the needs of today's twenty-four million investors; (2) whether they take into account the increased significance of trading markets; and (3) whether or not there are inconsistencies or overlapping requirements which should be corrected.[3]

With respect to such disclosure requirements, other members of the Securities and Exchange Commission have criticized corporate management and professional accountancy stating that it is often impossible for stockholders to obtain meaningful comparisons of their company's results of one year with those of other years.[4] This breakdown in financial communications between a corporation's professional managers and its owners may mitigate against effective participation by the latter in the management of their company. In fact, Leonard Spacek, chairman of Arthur Andersen & Company, Certified Public Accountants, stated that the accounting profession has not recognized that public ownership exists. Under the impression that they are still working for entrepreneurs who know all the details about their companies, the accountants have thought little about what the public investor wants to know, according to Spacek.[5]

The purpose of this article is to seek solutions to such U.S. reporting problems through an investigation of Swedish auditing procedures, which endeavor to involve the stockholders in the administration of their companies in the following ways:

1. By having the auditor, or auditors, hired by, and directly reportable to, the stockholders;
2. By requiring the appointment of a second auditor, or more, when the capital stock of the company exceeds a stipulated amount, or when so desired by groups of stockholders qualifying in number under the Swedish Companies Act of 1944; and
3. By charging the auditors with responsibility for recommendations to the stockholders as to whether operating management's administration of corporate affairs, disclosed in the audit of administration and the annual financial statements, should be accepted. Under this provision, called the "auditor's discharge," Swedish corporate officers are dis-

[3] "Toward a More Rational Disclosure Policy," (excerpts from a speech by Francis M. Wheat, Commissioner, Securities and Exchange Commission) reprinted in *Journal of Accountancy 123* (September 1968).
[4] "CPAs under Fire: Auditors, Critics Seek Wider, Faster Action in Reform of Practices," *The Wall Street Journal 47* (November 15, 1966).
[5] "Accountants Turn Tougher," *Business Week* (October 18, 1969), p. 125.

charged from the corporate responsibilities for each year's operations only when so recommended by the independent auditor and ratified by the annual stockholders' meeting.

INNOVATIVE SWEDISH AUDITING PRACTICES

The author conducted a survey to secure data with respect to the Swedish auditing practices referred to above.

The objectives of the survey were to obtain representative opinions as to: (1) whether these practices were accomplishing their objectives in Sweden; and (2) whether stockholders of U.S. corporations could achieve effective control through the adoption of these concepts.

Preceding each question of the survey was a definition of the specific Swedish accounting or auditing practice involved. This brief "refresher" material was provided primarily to save the time of those addressed in the first mailing, the financial executives of U.S. corporations with subsidiaries in Sweden.

Mailings were also made directly to Swedish subsidiaries, based on comments of certain U.S. parent companies indicating a lack of direct information of Swedish accounting and auditing practices.

Completed questionnaires obtained from the combined mailings represented approximately 70 percent of the Swedish subsidiaries and 45 percent of the questionnaires mailed.

The findings of this survey noted in logical progression are: (1) the Swedish provision for hiring more than one auditor, reportable directly to the stockholders; and, after selection of the auditors, (2) the audit of corporate administration culminating in the auditor's recommendation to the stockholders whether to discharge, that is, accept operating management's performance and financial reports or to refuse such acceptance.

THE PRACTICE OF HIRING MORE THAN ONE AUDITOR

One question of the survey was:

> Would you recommend the Swedish procedure of having more than one individual auditor for each company when its size (capital) exceeds a certain amount be adopted in the United States?

The response summarized by source was:

Respondent	*Yes*	*No*	*No Answer*	*Total*
Swedish subsidiaries	33%	33%	34%	100%
U.S. Parent Companies		86%	14%	100%

DEFINITION OF PROVISION

One reason for this negative response by U.S. respondents may have been a lack of information as to this provision's intent and advantages. Some U.S. respondents stated this and others advised they were not aware that in Sweden an accounting *firm* cannot be the auditor. Only individuals can act as auditors, even if they belong to a large accounting firm. The survey question was so worded: "The partnership is not hired, as is done in the United States; only the auditor on an individual basis."

As to the number of auditors which a Swedish firm must hire, Oiar I. Cassel reported to the Seventh International Congress of Accountants in Amsterdam, as follows:

> When the share capital issued or the registered maximum capital exceeds five hundred thousand Kroner, there must be at least two auditors, and when it exceeds two million Kroner, at least one of them must be an authorized public accountant.[6]

Thus the amount of a company's capital indicates the number of auditors required by Swedish law to audit the management of operations by the board of directors and the managing director and to examine the company's accounts.

SHOULD U.S. FIRMS HIRE MORE THAN ONE AUDITOR?

Sven-Hakan Leffler reported to the Sixth International Congress of Accountants in London that the intent of the act is the protection of the stockholders and their representation through the hiring of more than one auditor. In addition, a group of stockholders can cause additional auditors to be hired representing their interests if they control an adequate amount of stock. In this connection, Leffler stated:

> in respect of minor corporations, it is laid down that an APA (authorized public accountant) or an approved accountant shall be appointed if a request therefore is made by shareholders together holding at least one-tenth of the share capital.[7]

Another Swedish auditing provision permits independent accountants to specialize in a number of important services, such as managerial, tax, or cost accounting, and be retained only for such specific purposes. The

[6] Oiar I. Cassel, "Paper" (Presented to the Seventh International Congress of Accountants, 1947), Amsterdam, *Proceedings*, pp. 101–2.

[7] Sven-Haken Leffler, "The Accountant in Practice and in Public Service" (Presented to the Sixth International Congress on Accounting), London, 1952, *Proceedings*, p. 444.

client's regular auditor would confine his attention to the annual review of accounts and financial statements.

The extension of these practices to firms in United States and other countries could be one answer to critics who charge a conflict of interests with respect to the independent auditor who undertakes to do managerial, cost, or other services for the same client whose accounts he annually audits.

A Swedish respondent to the survey, Standard Radio and Telefon AB, recommended the practice of hiring more than one auditor for the United States "to obtain a satisfactory audit coverage and a higher degree of objectivity when auditing major companies. . . ."[8]

In general, U.S. respondents to the survey did not appear sufficiently knowledgable with respect to this Swedish provision to criticize it. Neither the reasons for its existence nor its advantages appeared to be understood. However, one U.S. respondent evaluated the provision in some depth and identified potential weaknesses as follows:

> This practice is not recommended. The amount of capitalization alone should not be the only criterion for the assignment of auditors. The scope and the complexity of the operation are more important factors in determining the number of auditors required to do the job. Furthermore, one of the more important areas of an audit is greatly restricted by the practice of not hiring the auditor partnership. This area would be in the lack of consultation on problems which an individual auditor may encounter, thereby reducing the effectiveness of the audit and possibly defeating the very purpose of the audit. . . .[9]

Regardless of the criterion for determining the number of auditors, a major reason for the hiring of more than one auditor lies in the multiplicity of functions for which the auditor is responsible with respect to the administrative audit and the discharge responsibility.

In contrast with the usual balance sheet audit in the United States, the Swedish audit includes a *statutory* responsibility to "comment upon management" for the stockholders' benefit. This may cause the auditor to give special attention to statistical data showing the financial development of his client's business, as well as the financial statements, and to encourage the creation of management control systems, particularly in the case of the widespread operations of multinational corporations.

In practice the Swedish auditor's recommendation for withholding of

[8] Standard Radio and Telefon AB, Stockholm, Sweden, Letter (March 8, 1967), signed by F. Hammar.

[9] Corn Products Company, Letter (December 1966) signed by James W. McKee, Jr.

discharge of liability to operating management appears unlikely to occur upon the basis of one isolated example. The objects to be examined are so numerous and the differences in size and nature of businesses so varied that it would appear difficult to establish objective standards. A pragmatic approach was reported by Swedish respondents in their administrative audits and recommendations to the stockholders, as indicated in the following discussion.

THE AUDITOR'S DISCHARGE PROVISION

Among the survey questions asked with respect to Swedish auditing procedures relating to the discharge provision were:

1. Do you feel that the intent of the Company Acts in Sweden to safeguard the stewardship of management to owners is being realized by requiring the company's auditors to examine the administration of the company's affairs and to bring to the notice of the stockholders any administrative measures that might affect the shareholders' decision of whether or not to grant to the board its annual discharge?
2. Would you recommend this practice for the United States?

The response from the participants in the survey, in terms of percentages, to the questions was as follows:

Percent answering each item

	Yes	*No*	*Total*
Answers: 1.	44%	56%	100%
2.	22%	78%	100%

Percent of total firms in survey

	Yes	*No*	*No Answer*	*Total*
Answers: 1.	38%	48%	14%	100%
2.	19%	67%	14%	100%

Source of the response by item was

	Item 1.			*Item 2*		
Respondent	*Yes*	*No*	*No Response*	*Yes*	*No*	*No Response*
Swedish Subsidiaries	84%		16%	50%	16%	34%
United States Companies	20%	67%	13%	7%	86%	7%

All Swedish respondents replying to the provisions of the Company Acts governing the auditor's discharge concept indicated agreement but only one-fifth of the U.S. companies did so. This may be the result of a lack of familiarity with the real intent of this provision on the part of U.S. accounting executives. Both the definition and intent of this provision are developed from statements of Swedish authors and Swedish respondents to this survey in the following paragraphs.

DEFINITION OF THE DISCHARGE PROVISION

The discharge provision defines the Swedish auditor's responsibility to include the examination of both the *rakenskaper* (accounting, record keeping and balance sheet) and the *forvaltningen* (management). The latter responsibility requires the accountant to audit the administration of the company's affairs and evaluate the quality of management in his annual recommendation to the stockholders.

Professor Oskar Sillen of Sweden translated *forvaltningen* to mean:

> all measures and actions which the management of a business makes in order to achieve the aims of the enterprise's activity within the framework of the prevailing law and good business practice.[10]

It is the responsibility of those attending the annual general meeting, or stockholders' meeting, after having read the accountant's report, to confirm the balance sheet and profit and loss account. In addition, the body must either release operating management from responsibility for all managerial activities for the year or withhold this release. Resultant consequences of withholding this discharge can affect continuation in office and court action because of the legal liability of the company's officers.

Precisely what constitutes an audit of administration in Swedish practice under the Auditor's Discharge Provision is defined in the next section.

AUDIT OF ADMINISTRATION UNDER THE DISCHARGE PROVISION

The Swedish Companies Act of 1944 requires the auditor to determine whether the organization and control techniques of the company's financial administration are satisfactory. Cassel explained the Act's provisions as follows:

> the auditor shall examine, and issue a statement of opinion on the administra-

[10] S. Kihlman, "Paper" (Presented to the Seventh International Congress of Accountants 1947), Amsterdam, *Proceedings,* pp. 425–26.

tion of the company's affairs. The purpose of this is presumably that the auditor shall bring to the knowledge of the shareholders any administrative measures that are of such nature and scope that they might conceivably influence the shareholder's opinion in the matter of granting the Board discharge from responsibility.[11]

The liability imposed by the Swedish Companies Act, paragraphs 105–13, applies to both civil and criminal liability of the auditors, members of the board, and the managing director in the performance of their work.

The auditor's duties cannot be restricted or reduced by agreement or by direction of the board or the shareholders. Nor can the auditor discharge his responsibility by merely making reservations or qualifications in his report as is often the case in the United States. This point is illustrated in the experiences of Swedish respondents reported below.

INTENT OF ADMINISTRATIVE AUDITS

In practice the Swedish auditor appears to be guided by the principle of materiality. With respect to the administrative audit, the Act is interpreted to mean that the auditors shall not scrutinize *all* details of corporate administration but rather concentrate on the main principles and important acts of policy. For an auditor to be justified in criticizing the administration in his audit report and in recommending that discharge from liability not be granted, there must have been gross error or negligence in the administration of the company.

The discovery or prevention of illegal or otherwise indefensible management actions is intended. The provisions of the Act require the auditor to criticize the economic advisability of management decisions *only* when these are of such a nature that they may lead to a refusal to grant discharge from responsibility.

ILLUSTRATIONS FROM SWEDISH PRACTICE

Illustrations of this provision in practice were reported by E. Rybeck, an authorized public accountant in Sweden, with a clientele of 2,500 to 3,000 firms. He stated that differences in opinion which occur between the board of directors and the auditor in large companies are generally settled so that the board renders the financial statement according to the auditor's wishes. On other occasions, the auditor must decide whether the faults in the management have been sufficiently important for him

[11] Cassel, "Paper," p. 102.

to recommend a refusal of discharge of responsibility of the managing director and the board or one certain member of the board.[12]

His experience in the conduct of Swedish audits led him to the conclusion that it is not possible to predict to what extent individual Swedish auditors may criticize management. Some auditors may take action only when the obligation is clear. The auditors' action may depend on his degree of experience and his reputation in the field.

Rybeck related one incident which attests to the effective power of the Swedish auditor in actual practice:

> In one case I was convinced that the managing director was not able to handle the company's activities in the right way. I informed the chairman of the board of directors of this without any result, and on this account I called the whole board of directors. At this meeting I stated the reason why I considered the managing director incapable and demanded that he should be dismissed. Should the board of directors not proceed thus, I was going to inform the annual general meeting of this in my official report. However, the board of directors followed my proposal.[13]

Differences of opinion that do occur between the board of directors or the managing director of Swedish firms and the authorized public accountant are usually settled before the auditor's report is issued. Rybeck commented that if agreement cannot be reached in such cases, it is not unusual for the managing director to mention the circumstances in his own annual report. As a result the auditor does not have to report on the matter unless it is sufficiently serious to require his recommendation that the discharge of responsibility of operating management be denied by the stockholders.[14]

APPLICATION TO MANAGEMENT-AUDITOR-STOCKHOLDER RELATIONSHIP IN THE UNITED STATES

An indication of how the Swedish discharge provision works in practice was contained in preceding sections. The interaction between operating management and the professional accountant was described, suggesting how both accept their statutory responsibilities to Swedish stockholders.

In the United States the charge has been made that neither the public accounting profession nor operating management has accepted or discharged its responsibilities to investors. Compounding the situation

[12] Ebbe Rybeck, Revisionsbyra AB, Karlavagen, Stockholm, Letter (February, 15, 1967) p. 2.

[13] Ibid.

[14] Ibid.

is the fact that today there are more investors, and more sophisticated ones, who are seeking corporate financial information for the purpose of either investing or protecting investments already made. Traditionally, the public accountant was viewed as an independent seeker of financial truth whose audit of a corporation's books could be depended upon by the investing public. However, in the United States, the company's auditor is hired by management, and while stockholders must ratify that choice they seldom, if ever, refuse.

THE ACCOUNTING PROFESSION'S RESPONSIBILITIES TO CORPORATE STOCKHOLDERS

The question has been raised as to how much scope the United States public accountant really has for outright independence. The criticism is particularly sharp when the independent auditor not only performs a balance-sheet audit but also serves as a management consultant to his client, causing him to pass judgment on the results of his own recommendations. This compounds the already sensitive issue of a potential conflict of interest existing because the public accountant's fees are paid by the same management whose books he audits.

In addition, the emergence of the conglomerate, something new in corporate finance, has resulted in new demands from both the Securities and Exchange Commission and Wall Street analysts relating to the composition of "generally accepted accounting principles." Although not within the scope of this article, the issue concerns the discharge of the independent auditor's most basic responsibility to investors. The requirement for "principles and practices which are recognized as sound" in reporting to investors has not been accepted or even clarified by the accounting profession.[15] From within the public accounting profession itself, the charge has been made that:

> the financial information which is given to the investor, and upon which everyone relies on the basis that our profession has checked it, is based on a variety of practices which have no more authority than that someone else used or espoused them.[16]

Although the Accounting Principles Board, established in 1959 by the American Institute of Certified Public Accountants, has made progress in developing a clear set of standards, it is noteworthy that a

[15] "Accountants Turn Tougher," p. 125.

[16] Leonard Spacek, "Are Double Standards Good Enough for Investors but Unacceptable to the Securities Industry?" (Address before the New York Society of Security Analysts, New York, September 30, 1964), *The Journal of Accountancy 118* (November 1964):67.

proposal has been made from within the public accounting profession for a U.S. Court of Accounting Appeals. If adopted, the plan would create an independent agency in the executive branch, empowered to "affirm, modify, or reverse" accounting rules of five regulatory agencies, including the Securities and Exchange Commission and Interstate Commerce Commission.[17] This may indicate a change of heart on the part of professional accountants who have feared the threat of effective federal control over accounting principles since the creation of the Securities and Exchange Commission in 1933.

MANAGEMENT'S REPORTING RESPONSIBILITIES TO ITS STOCKHOLDERS

Where then does responsibility rest for providing adequate financial information to U.S. investors? Spacek stated:

> Everyone seems to agree that corporate management has primary responsibility for the financial statements, but let's look at the question a little more deeply. . . .
>
> When a corporate officer is called upon to take responsibility for the accounting his corporation has made to stockholders, he invariably states that he relied on the corporation's public accountants to check the financial statements and give their opinion of the fairness of the statements. The corporate officer is not thereby relieved of responsibility for his representations, but it certainly helps to relieve him of any charge of negligence.[18]

The elimination of confusion as to the respective responsibilities of both operating management and the auditors could represent a major contribution of the Swedish auditor's discharge legislation as far as U.S. corporations are concerned. Greater stockholder information and opportunity for control could be the effect if Swedish experience is any criterion. The independence of the U.S. certified public accountant may be strengthened if he has access to the stockholders. His recommendations for the acceptance or rejection of the performance which operating management has achieved in the year under review and the financial statements which report on such operations should be available.

LACK OF INFORMATION OF FOREIGN ACCOUNTING AND AUDITING PRACTICES BY THE UNITED STATES ACCOUNTING EXECUTIVES

The findings of this investigation clearly indicated a lack of information on the part of U.S. accounting executives of parent companies concerning the accounting practices of foreign subsidiaries. A number of respondents frankly admitted this. Some referred their Swedish sub-

[17] "Accountants Turn Tougher," p. 125.
[18] Ibid.

sidiaries and Swedish auditors to this survey's questionnaire for answers. At a time when it is fashionable to talk of "gaps" in our culture, a definite foreign accounting gap is apparent from the findings of this survey.

Reasons for this lack of information on the part of accounting executives of U.S. corporations may be many. W. E. Hanson, senior partner in Peat, Marwick, Mitchell and Company, mentioned several reasons in his reply to this survey. The requirement by most parent companies that the foreign subsidiary maintain two sets of books, one for local statutory requirements and a second in accordance with generally accepted accounting principles in the United States is a major reason. Hanson stated:

> Accordingly, it has been our experience that most U.S. parent organizations are concerned with foreign statutory and fiscal accounting controls only to the extent that they can take appropriate and maximum advantage of any concessions connected therewith.[19]

While this practice is a practical means of overcoming disparities between the two sets of records and facilitates preparation of the consolidated statements, it may also act as a barrier to a better understanding of international accounting practices, including innovative procedures such as those discussed in this article.

CONCLUSIONS

The Swedish Company Act of 1944 tends to give stockholders a large measure of control over their company and to encourage their active participation in matters of management. Auditing provisions include stipulation for the hiring of more than one auditor, and the auditor's discharge provision which covers both the conventional balance sheet audit as we know it in the United States and the audit of management or administration, prevalent in Sweden.

The hiring of more than one auditor not only gives Swedish stockholders the opportunity for effective representation and therefore protection, but also provides for specialization without conflict of interests on the part of the auditor. This effect is achieved by retaining *different* auditors for *different* specialities, such as cost, managerial, or tax services, over and above the annual review of the accounts by another independent accountant. Stockholder groups can obtain additional

[19] Peat, Marwick, Mitchell and Company, Letter (January 10, 1967) signed by W. E. Hanson.

representation and participation in management through the hiring of an additional auditor if they control adequate stock.

By having the auditors report directly to the stockholders, Swedish corporations may place their auditors in a more tenable position than is usually the case in the United States. The Swedish auditor works closely with operating management but can maintain his independence because he is not reportable to such officers. Since he is accountable to the stockholders, the Swedish auditor can audit both the accounts and the company's administration for the year under review and report objectively. He need no longer have fear of alienating operating management and losing next year's audit engagement or being charged with a conflict of interest because he is paid by the same officers whose books he audits.

This concept is in contrast to practice in the United States and other countries where, in fact, the public accountants are hired by management. Although the shareholders must pass judgment on management's choice of auditors, they seldom, if ever, reject management's recommendation. In addition, there is always a question as to how much scope for independent action actually exists for the public accountant, particularly when he serves his client as both auditor and management consultant. In practice the accountant may thus be asked to pass judgment on the results of his own recommendations, again raising the possibility of a charge of conflict of interests.

Swedish legislation has placed responsibility for financial statement presentation on corporate management. However, the independent auditor's responsibilities to investors are clearly stated in the discharge provision. Included is the requirement to express an opinion concerning the quality of the company's administration as well as its accounting statements during the period under review. Stockholder consideration is required in deciding whether the firm's managing director and board of directors should receive a discharge from responsibility and the financial statements be accepted as presented.

This investigation disclosed the need for further research by U.S. accounting organizations of innovative accounting and auditing procedures of other countries. Very little has been written in this field and relatively few universities offer courses in international accounting. This may explain the dearth of understanding and appreciation on the part of accounting executives in the United States of the Swedish auditing practices involved in this investigation. Yet a very real need exists to

probe all techniques which have the potential of responding to the needs of U.S. stockholders.

The increase in total stockholders, the rise of the conglomerate, and the growing numbers of knowledgable stockholders and conglomerate-style accounting analysts render it imperative that both management and the accounting profession clearly understand and accept their respective responsibilities to such stockholders. Swedish techniques of employing more than one auditor, when warranted by corporate size, and the discharge provision, which requires discharge reporting recommendations from the audit of both administration and books of account, represent one nation's efforts to return the control of a corporation's affairs to its rightful owners.

In the Swedish environment these techniques appear effective. Whether the U.S. business environment would accept and benefit from these procedures, or a modification thereof, only further research and changing patterns of thought can determine. It is believed that professional accounting must join with the universities to create an awareness of the part of both operating management and the public accountant that the business environment *is* changing in the United States. The resulting patterns of thought may be such that today's stockholders will require the same accounting of management's stewardship and knowledge of corporate details as the entrepreneurs of fifty years ago.

A Business Economics Foundation for Accounting: The Dutch Experience

GEORGE M. SCOTT*

Several articles about Dutch replacement value accounting written by Dutch accountants have appeared in English language academic journals in recent years.[1] The authors of these articles usually imply that Dutch accounting is highly rationalized and entirely consonant with its economic and social environment, and that, as a consequence, it provides services to companies and to society which are not conferred to the same degree by accounting elsewhere. Van Seventer, for example, comments in a recent issue of this journal that, "The accomplishments in the Netherlands, specifically in income accounting theory, during the last forty-five years have proved that a systematic body of accounting theory, consistent with and specialized from economics, can be developed."[2]

The descriptions provided by Dutch accountants are consistent with respect to the discipline of business economics serving as the basis for Dutch accounting and with regard to the merits of their approach to

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[1] Certain of these articles are referenced at appropriate points in this paper.

[2] A. van Seventer, "The Continuity Postulate in the Dutch Theory of Income," *International Journal of Accounting 4* (Spring 1969): 1. Van Seventer is a Dutch accounting scholar presently residing in the United States.

accounting. Considering this, more thorough and widespread consideration of Dutch accounting than has occurred in the past seems warranted for American scholars.

It is possible that the general lack of interest in and enthusiasm for Dutch accounting outside the Netherlands is in major part because the Dutch accounting based on business economics is so fundamentally different from other methods of accounting that its full implications for the business community and society are not readily apparent. It is the purpose of this article to present the business economics approach to accounting as used by the Dutch and described by Dutch accountants and to explore the aforementioned implications.

DUTCH ACCOUNTING: A SUMMARY

To contrast Dutch accounting more sharply with our own, it is useful to begin with a brief summarization of what Dutch accountants consider to be the important characteristics of their accounting. Dutch authors portray their accounting as a composite of several characteristics. The most important one, and the one which appears to have greatly influenced all facets of Dutch accounting, is that the principles of business economics are developed and interpreted by Dutch accountants as practical guides for accounting and auditing. Purportedly, accounting and financial reporting practices are therefore unfettered by accounting conventions and are constrained only by the principles of business economics and by the Dutch auditors' role in seeing that these principles are considered. The Dutch believe that the use of replacement values is derived from interpretation of the principles of business economics.

The principles of business economics as a foundation for Dutch accounting also appear to account for another attribute — the apparent existence of a conceptual and practical rapport among the three major functions of Dutch accountants. Perhaps to a greater extent than elsewhere these three functions — external reporting and auditing, internal reporting, and management advising — appear to have achieved rapport and to have developed with near equal emphasis.

Another important characteristic is that Dutch accountants evidence a strong aversion to taxation as a determinant of accounting practice. As elsewhere, Dutch fiscal authorities pay scant heed to accounting theory and to the probable impact of tax legislation on accounting practice. However, Dutch accountants have been persuasive in convincing companies that theoretically sound accounting practices should prevail over tax-influenced accounting practices, and tax accounting practices,

therefore, are not incorporated into the formal business records if they are in conflict with accounting theory. Perhaps partly as a result, the Netherlands business community considers the accounting function to provide extremely useful information on which to base operating decisions.

In combination, the characteristics outlined in the preceding paragraphs define an accounting structure and philosophy quite different from those in existence elsewhere. Accounting in the United States, Canada, and most other nations, for example, is based more on actual business practices than on business economics, and accounting practice is highly constrained by "generally accepted accounting principles," which include the historical cost principle. Again, in virtually all nations except the Netherlands, tax laws have a strong direct or indirect influence on accounting practice. In other respects also, as will be shown, the Dutch consider their business-economics-based accounting to be different from and not inferior to that of other nations.

THE YEARS OF DEVELOPMENT

The unique nature of the Dutch approach, which exists in a free enterprise economic environment not essentially unlike our own, appears to be attributive to two major factors. The first is that Dutch accounting development has been primarily insular. Although the Netherlands Institute of Accountants (established in 1895) initially adopted with few changes the regulations of the Institute of Chartered Accountants in England and Wales, Dutch accounting since has been largely influenced by events and circumstances within the Netherlands.

The particular accounting philosophy which germinated in the Netherlands has been the other major influence on Dutch accounting. In fact the present circumstances of Dutch accounting appear to be in major part attributive to the ideas and philosophy of one accountant-educator, the late Professor Theodore Limperg.[3]

Limperg began his accounting career in 1901 as a twenty-one-year-old auditor and pursued what today might be considered a "systems" approach to accounting. That is, he was concerned not only with individual aspects of accounting, but also with ensuring that each aspect of

[3] Much of the following biographical information about Dr. Theodore Limperg is from Abram Mey "Theodore Limperg and His Theory of Values and Costs," *Abacus* (September 1966). This writer gratefully acknowledges information provided by correspondence with Dr. Mey and used throughout this article. From 1949 to 1961 Dr. Mey occupied the Chair of Professor of Managerial Economics at the University of Amsterdam as successor to Dr. Limperg.

accounting was conceptually linked and integrated with all other aspects as well as with the entire economic and social fabric of the Netherlands. Limperg's theory encompassed not only financial reporting and auditing, but also management information needs and the relationship of company accounting to regulation of the national economy.

With respect to auditing, Limperg was an early proponent of expanding the audit scope far beyond what was usual a half-century ago. Limperg also believed in strict regulation of auditor proficiency and conduct and strict auditor independence so as to create confidence in audited statements; and he was instrumental in seeing that this view prevailed among his colleagues at an early stage in the Dutch profession's development. Additionally, at his urging the profession began providing extensive advisory services to management in order to increase demand for audit services.

Limperg was also an early proponent of current value measurements for external reporting and as a basis for management policy-making. He was convinced that the interests of investors and society necessitated auditors' satisfying themselves that company financial statements indicated the position and performance of companies in current rather than historical cost terms. Limperg also believed that accounting in terms of historical costs was responsible, at least in some measure, for the severity of economic cycles. He argued that during inflationary periods the exaggerated profits shown by historical cost accounting made credit for expansion too readily available, resulting in increased overinvestment and inflation perpetuation.

Limperg's views on accounting did not immediately prevail, however. His forceful pursuit of the goals of broadening functions of auditing and using current values in accounting caused conflict with other leaders of the Netherlands Institute of Accountants. Limperg and his loyal associates (many of whom were his former pupils) left that organization to establish the rival Netherlands Accountants Association. Limperg's influence grew and in 1918 the two organizations merged with his ideas setting the conceptual pattern for the reorganized Netherlands Institute of Accountants. Limperg's influence is still pervasive in accounting in the Netherlands. That Dutch accounting theory seems to have few theoretical inconsistencies is generally acknowledged to be in large measure the result of his efforts.

BUSINESS ECONOMICS AS A FOUNDATION FOR ACCOUNTING

The principles of business economics serve as the foundation for

Dutch accounting. As Van Seventer states, "It is a fundamental premise of the 'Amsterdam School' that the study of accounting should be integrated with the body of economic knowledge and methodology."[4] However, the business economics on which Dutch accounting is based is not directly comparable to any discipline existing elsewhere. Attuned closely to the practical world of business and management, the Dutch version of business economics is an integration of empirical micro and macro economic observations with economic theory.

From a macro orientation the Dutch discipline examines the practical implications to a firm of its place in the entire economic and social fabric. The discipline also considers the effect of the actions of individual firms on the economy at various stages of the economic cycle, and on consumers and other members of society.

In a micro context Dutch business economics explores the relationships between technical and economic processes to determine the effects of an organization's activities on its costs and revenues. As Van Seventer suggests, "The purchase of an asset, the sale of inventory items, the borrowing of money, and the act of technical production all carry a cause in the past and an implication for the future."[5] The discipline then considers the measurement procedures necessary to evaluate the efficiency of management and to portray properly the results of the technical and economic process relationships.

Business economics in the Netherlands is a composite of several branches of economic theory. One is the theory of cost and value under which costs are considered to be the required and unavoidable sacrifices in the production of products. Sacrifices measured in physical terms and stated at replacement value generally constitute the value of the product to the manufacturer.[6] Expenditures for unnecessary or wasted resources (including excess capacity) are not unavoidable costs and so have no value. Since, unlike American accountants, Dutch accountants consider themselves to value rather than chronicle historical costs, they must undertake rigorous training in cost and value theory.

Related to cost and value theory in Dutch business economics is the theory of costs and returns which involves measurement of the economic efficiency of a firm by comparing the necessary sacrifices at each production center with the economic returns to that center. This comparison is considered useful to management and also provides the framework for external reporting in the Netherlands.

[4] Van Seventer, "*The Continuity Postulate,*" p. 4.
[5] Ibid., p. 8.
[6] Ibid., pp. 7–10.

Another branch of the theory considers capital needs of organizations and relates internal characteristics of firms to circumstances of the market environment in which firms operate. This branch is concerned with the means available to firms to replenish or expand their financial capital and considers the relationship of financing activity to economic fluctuations.

Also central to the business economics approach is the organization theory, which deals with the flow of human and material resources and their mergence to produce differentiated products. The Dutch consider industrial and administrative efficiency to be explicable only in terms of the recognition and rationalization of these flows.

DUTCH REPLACEMENT VALUE ACCOUNTING

The tenets of business economics have long held sway in Holland as the major influence on their accounting. Since economics is greatly concerned with valuation and income problems, it is natural that the attention of accountants in the Netherlands increasingly has come to concentrate on the question of whether or not conventional accounting methods of valuation and profit determination provide proper insight into the status of a business enterprise. From a premise of business economics, the Dutch believe the answer can be only that current values (generally replacement values) provide more appropriate measures of financial position, income, and rates of return than does historical cost accounting.[7]

Replacement Value Theory

Use of replacement values is a logical outgrowth of Dutch accountants' business economics orientation. The effect of a business economics orientation in accounting is the maintenance of invested capital in real as opposed to nominal (monetary) terms.[8] Maintenance of invested capital is considered necessary to ensure continuity of production, assure creditors' protection, and evaluate properly and report the success and efficiency of firms' operations.

Primarily because of the economic phenomenon of changing prices (in general as well as for specific assets), the recording of transactions between the firm and outsiders as well as within the firm at current

[7] For a general description of the differences in income determination between replacement value and historical cost accounting, see L. S. Rosen, "Replacement-Value Accounting," *The Accounting Review* (January 1967) pp. 106–13.
[8] Van Seventer, "The Continuity Postulate," p. 11, notes that this is not the emphasis of Limperg's theory, but that Limperg's theory is consistent with the maintenance of capital.

values is requisite to evaluation of the extent of the maintenance of real capital. The use of replacement values to evaluate the real increase or decrease of capital is a process which may be characterized as follows. Assets are periodically restated to a level which the Dutch consider to be a proper value (the quantity of each of the resources composing the asset multiplied by its per-unit current replacement value).[9] In theory these assets include all fixed assets, finished inventory, and work in process, although, as will later be shown, practice does not in all cases conform to theory.

Adjustments corresponding to asset restatements are to the capital accounts, rather than to retained earnings where they would be construed as holding gains or losses. Dutch replacement value accounting does not encompass the concept of holding gains in inventories or other assets, a concept accepted by many theoretical accountants and perhaps argued most persuasively by Edwards and Bell.[10] Instead, if assets have remaining productive value or must be replaced in kind or in productive or service capacity in order to continue operations (as is the normal case), then the increased value of the asset held over time is not considered to be a gain but rather an adjustment to the capital account to reflect the increased amount of capital currently necessary to maintain operations at their present level. In Dutch theory this is so whether the market value change is attributive to general price changes or to a change in the value of the specific asset relative to other goods and services.

After having restated assets (and, in consequence, the capital account), the restated value of the assets consumed in the securing of revenue of the period is set against that revenue. This use of replacement values for income determination permits calculation of an approximation of "economic income"; that is, an income that business economics theorists consider to be the most acceptable surrogate for the unmeasurable economic income ideal derived from the concept of the present value of the future cash flows of the firm's resources.[11] That use

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[9] Some writers sympathetic to current values question the propriety of stating assets at their replacement value, which is an "entrance value." For example, Chambers advocates "cash equivalents" which are "exit values" in the nature of market resale prices. Raymond J. Chambers, *Accounting, Evaluation and Economic Behavior* (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1966).

[10] Edgar O. Edwards and Philip W. Bell, *The Theory and Measurement of Business Income* (Berkeley: University of California Press, 1961).

[11] For accounting purposes, Dutch economic income is "The income which may be spent without trespassing on the capital of the business, which is the source of income." A. Goudeket, "Fluctuating Price Levels in Relation to Accounts," *Proceedings of the Sixth International Congress of Accountants* (London: 1952), p. 74.

of replacement values is thought to be the most acceptable of the income determination alternatives stems from the fact that their use provides a reasonable approximation of economic income as well as from the understanding that replacement values usually are amenable to reasonably objective measurement. The use of replacement values ensures that current costs (including depreciation, which is restated to a current cost basis) are matched to current revenues in the determination of income.

In the articulation of the financial statements, income so determined is responsible for increments (or decrements) in total capital as an increase (or decrease) of retained earnings. This completes the adjustment of the capital and retained earnings accounts to a current basis and permits determination of whether the capital of the company has been maintained, increased, or eroded. Further, the elements of total capital change have been separated to indicate the portion of change required to provide for the continuance of the enterprise at its present level of operations (capital maintenance), and the portion which represents the change brought about from successful or unsuccessful operations. Managers and owners are then in a position to predicate their resource allocations and other decisions on more informed analyses. Also, directors of the company are more aware of the implications of dividend decisions for long-run operations and are in a position to make prudent analyses of the propriety of distributions of this nature.

The benefits conferred by replacement value accounting can be seen not only to include a more proper determination of income and valuation of assets and capital, but also to extend to the many evaluative techniques utilizing relationships which include one or more of these factors. As one example, a commonly used measure of operating efficiency and success is the return on total resources employed in the generation of revenues. This return is determined by finding the percentage of income to total resources. During periods of rising prices conventional accounting severely distorts this calculation because income (the numerator) is overstated to the extent that older and lower costs are not indicative of the actual sacrifices (the current cost of goods) made to generate current revenues, and the asset base (denominator) is understated by being quoted at the lower historical costs. The net effect can be gross exaggeration of return on productive resources but because of the interaction of the several variables (e.g., the relative proportions of very old and almost-current costs) the extent of this exaggeration in a given case is far from being intuitively obvious. It is fair to say that

whatever the extent of exaggeration, it promotes widespread misunderstanding of profitability, a misunderstanding which has both social and economic consequences.

Further problems are caused if assets in different segments of a firm are acquired at different times or if assets of the entire firm are acquired at a different time than are assets of another firm. To the extent that this occurs, comparability of profitability and operating efficiency, if determined according to conventional historical cost methods, is made difficult. This may cause unwise allocation by management of resources within a firm or by investors of resources between firms. Managers, owners, and other interested parties are not only quantitatively unable to assess the extent and effects of this noncomparability but also, in varying degrees, may be unaware of the lack of comparability. They therefore may be unable to make even subjective adjustments to compensate for the lack of objective comparability resulting from conventional accounting.

The Dutch consider operating efficiency to be properly measured and comparability within and between firms to be achieved by comparing net income computed on a replacement value basis with the total replacement value of resources employed in the generation of that income. This is because, to the Dutch, the best determination of the value of resources sacrificed as well as the value of total resources employed in the generation of revenues is their replacement value.

Replacement Values in Practice

Dutch accounting is unusual in that replacement values are commonly used in practice. However, Dutch accounting is unique in that the use of replacement values is considered to be the most acceptable accounting practice for external reporting and is readily attested to by Dutch auditors. Although replacement and other current values are encountered occasionally in other nations for internal and external reporting, it is only in the Netherlands that current value statements are encouraged, even in periods of negligible inflation, and attestation of these statements is routine.[12] Furthermore, it is only in Dutch companies that current value adjustments are recorded in detailed accounts to provide information for management at all levels, instead of having only the final, company-wide financial statements adjusted.

[12] Appendices D and E of *Accounting Research Study No. 6: Reporting the Financial Effects of Price Level Changes* (New York: American Institute of CPAs 1963), examine several cases involving adjustments of financial statements for price changes.

By no means have all Dutch firms adopted current value accounting and reporting practices. But many Dutch firms (particularly the larger ones) do use current values for both financial and managerial reporting.[13] There are also many Dutch firms which apply current values to only some categories of their accounts. In general the smaller the firm the less likely it is to use current values throughout. It can be ventured that although replacement values probably are not presently used by the majority of the medium- and large-size Dutch companies, there is the likelihood that this will eventually be the case, since "replacement value theory . . . is now accepted by the majority of the theorists and practicing accountants in the Netherlands."[14] Dutch firms using replacement values do so even for periods when the general price level does not change, since prices of specific assets still vary.

In their application of replacement value theory, Dutch firms take the very pragmatic approach of substituting an estimate of replacement value if replacement value is not readily ascertainable. Values determined by specific price indexes are most frequently substituted, and individual firms often devise their own price indexes or other measurement techniques on an ad hoc basis after consultation with their auditors.[15]

EXTERNAL REPORTING IN THE NETHERLANDS

Dutch firms, at least the larger ones, are regarded as among the most progressive in external financial reporting. The Dutch public accounting profession takes credit for having been very effective in showing Dutch companies the advantages which accrue through thorough, painstaking, and realistic public disclosure of financial affairs.

Dutch auditors and accountants appear to have created a pervasive, positive attitude toward accounting among all elements of the business community. They have convinced businessmen that accounting is a key to sound management as well as to sound investment. It was in this positive spirit that a committee of the Netherlands Employers' Association met in 1955 to establish recommended concepts and standards for

[13] For an example of replacement value accounting used in Philips Gloeilampenfabrieken see A. Goudeket, "An Application of Replacement Value Theory," *The Journal of Accountancy* (July 1960): 37–47.

[14] Van Seventer, "The Continuity Postulate," p. 2.

[15] Tritschler examines the methodology involved in construction of specific price indexes and concludes that "use of the firm's own probabilistic indexes offers . . . methodological advances in accounting measurement." Charles A. Tritschler, "Statistical Criteria for Asset Valuation by Specific Price Index," *Accounting Review* (January 1969): 99–123.

external reporting. Van Vlerken summarizes the most important of these:

1. Income must be specified so that return on capital can be assembled.
2. Assets and liabilities must be specified so that insight is obtained into solvency and liquidity.
3. Bases for valuation and income determination must be stated, as well as changes thereto and their effects.
4. Replacement value accounting is strongly recommended.[16]

The committee which drew up these standards consisted of entrepreneurs, stock exchange experts, bankers, financial journalists, and auditors. This report and a 1963 revision have influenced present accounting in the Netherlands even though there is no effective machinery to ensure compliance with the recommendations of the report.

Legislation relating to financial reporting in Holland has always been permissive, bordering on nonexistent. One result of the minimal legal regulation of accounting in the Netherlands is that even though the best of external reporting is very good indeed, not all firms publishing financial statements follow accounting practices which would meet legally prescribed minima for firms in comparable situations in America. Van Amerongen has commented that "Freedom is good for the strong, and in Dutch accounting they have come a long way . . ." but that for the "weaker brethren" some sort of legal regulation of accounting would be helpful.[17]

Reporting Principles

The Dutch auditing profession has emphasized that accounting and external reporting be based on the principles of business economics which have been outlined in preceding sections of this article. The Dutch appear to have no concept that is analogous to "generally accepted accounting principles," for there are almost no binding Dutch accounting conventions other than those of double-entry and accrual accounting. The Dutch lack of accounting conventions constitutes one of the fundamental differences between their accounting and reporting and that existing in other highly developed nations.

Dutch accountants' primary objective is to portray the economic significance of events. Since strictly defined "rules" analogous to generally accepted accounting principles are not used, any portrayal is proper if it reflects the economic sense of events. There is an infinity of

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[16] J. H. M. van Vlerken, "Financial Reporting in Holland," *Canadian Chartered Accountant* (November 1965): 345–46.
[17] F. van Amerongen, "Dutch Accounts," *Accountancy* (June 1963): 497.

different economic events and so there is also considerable diversity of Dutch reporting practices. The educational requirements for Dutch accountants and auditors, which appear to lay heavy stress on training in economic theory, seem designed to impart to these persons the judgment necessary to select the accounting procedure appropriate to the circumstances.

Differences of Principles

It is interesting to compare Dutch and American accounting principles in certain respects and to consider the possible effects of differences in financial reporting and in the receptivity of American accountants to replace value accounting. A fundamental difference in application between the American and Dutch approaches to accounting may be inherent in the fact that the exercise of judgment on the part of American accountants is sometimes limited to the selection of one of perhaps several alternative "generally accepted accounting principles." These principles need not be grounded in business economics; some accounting principles, such as LIFO for example, are generally accepted because they effect income tax savings. To the extent that accountants sense accounting conventions to be only arbitrary rules with no economic rationale, they are probably the more inclined to permit the adoption of whichever accounting alternative portrays the most favorable results, irrespective of the true economic circumstances.

The Dutch however claim to test their judgment against the substantive principles of business economics and so attempt to portray realistically economic events and status. Dutch accountants insist that the multiplicity of permissible practices does not give them license to choose capriciously, but that instead they are professionally committed to search for or even devise an appropriate accounting practice for a particular transaction or situation. Theoretically this means that Dutch accounting is continually in evolution because accountants are continually recommitted to analysis of changing circumstances.

An apparent by-product of Dutch attempts to portray accurately economic reality is that Dutch accountants have effected a nearly complete separation of business accounting and tax accounting. Van Amerongen notes that in the Netherlands "at an early stage accounting . . . did not let its development be hampered by the rules laid down by the tax authorities for the calculation of fiscal profit or loss."[18] This

[18] Ibid., p. 499.

expurgation of tax rules from business accounting undoubtedly contributes to the utility of accounting for economic decision-making.[19]

To understand Dutch accounting and financial reporting it is necessary to realize that even though the use of replacement values increasingly is being accepted by the Dutch as the major tenet of their accounting, replacement values are in fact the *result* of an approach to accounting which rests solidly on business economics. The failure to see that it is from within a context of business economics that replacement values are logical provides an important indication of why American practicing accountants are generally not enthusiastic about replacement value accounting. American accountants do not view business economics and replacement values as a possible *substitute* for generally accepted accounting principles. Rather, American accountants view replacement values as possibly an *additional* generally accepted accounting principle. In this context replacement values seem inconsistent and incompatible with many present accounting principles and with much of the framework of American accounting.

In fact, American accountants' inclination to view accounting as a separate discipline only casually related to economics probably accounts for our tendency to be more favorably disposed toward adjustments for general rather than specific price level changes.[20] General price level adjustments update historical costs (which are a part of our accounting heritage) while replacement values (specific price level indices) constitute valuation and therefore are completely alien to the heritage of American accountants.

INTERNAL REPORTING

Internal reporting is well developed in large Dutch firms. The Dutch approach to internal reporting is also conditioned by and predicated on business economics, for Breek tells us that ". . . the same economic principles should be applied in external as in internal accounting."[21] Busi-

[19] Solomons reminds us that "many [American] companies are paying a substantial, though concealed, price for tax savings when, in pursuit of these savings, they adopt accounting methods which do not serve the needs of management and may even positively mislead it." David Solomons, *Divisional Performance: Measurement and Control* (Homewood, Illinois: Richard D. Irwin, Inc., 1965), p. x.

[20] For a discussion of the disposition of American accountants toward general price level adjustments, see Graham Pierson, "Three Kinds of Adjustments for Price Changes," *The Accounting Review* (October 1966): 734–35.

[21] P. C. Breek, "Some Principles of Business Economics," *The New Horizons of Accounting,* Ninth International Congress of Accountants, Paris (1967): 188.

ness economics thus provides a conceptual link between internal and external reporting that has not been developed to the same degree in other nations.

One of the practical implications of this link is that the education and training of accountants for companies and for auditing has long been essentially the same in the Netherlands. Another is that replacement values are as widely used for internal as for external accounting. Goudeket has noted that with internal use of replacement values at all levels in Philips Gloeilampenfabrieken "a more appropriate basis for policy decisions is created and that is of tremendous value."[22]

MANAGEMENT ADVISORY SERVICES BY AUDITORS

Since Limperg's ideas on auditing gained in credence in the first quarter of this century, provision of advisory services to management has been one of the major functions of Dutch auditors. Never since have auditors thought themselves to be ethically restrained from this activity. Because their responsibility has been so broadly defined as to include advisory services to management, Dutch auditors have avoided entirely the unfortunate circumstance of American auditors who only in recent years have begun to provide extensive advisory services to clients.

Advisory services provided as a normal part of an audit apparently still tend to be broader in some respects in the Netherlands than in the United States. In addition to providing advice on normal problems of business operation, Dutch auditors are expected to exercise a controlling function on *behalf* of management — a function of assuring management that data on which management bases decisions are accurate and, at the same time, of verifying that management's policies have in fact been carried out.

Parenthetically, it is interesting that at a time when the professions of other nations are newly expanding into management consulting, there are indications that Dutch public accountants are beginning to delegate detailed tax consulting work to "independent tax consultants who usually are not qualified accountants and whose training has been entirely different."[23] This development is probably to be expected since emphasis in the training of Dutch auditors is increasingly on business economics, which has little relevance to taxation as tax laws are based on fiscal and social needs rather than business economics.

[22] Goudeket, "Replacement Value Theory," p. 47.
[23] *The Canadian Chartered Accountant* (January 1966) p. 52.

Auditors in the Netherlands are expected to be well-versed in management techniques. Business economics is a discipline essential for the development of these techniques as well as for other skills necessary for business advising. Since business economics is also the foundation for internal and external reporting there is a high degree of overlap between the training necessary for these functions, auditing, and business advising. It seems a happy circumstance for the Dutch that the discipline of business economics appears to help unify and integrate all of the accounting functions in the Netherlands as well as to integrate these functions into their microeconomic and macroeconomic environment.

CONCLUSIONS

To attempt a definitive evaluation of the Dutch experience with business economics as the foundation for accounting on the basis of the limited information currently available in the English language would not be appropriate. Instead, this article has attempted to summarize the business economics approach to accounting and to set forth the distinctive aspects of Dutch accounting as seen by Dutch accountants. This portrayal is attempted primarily by synthesizing the published views of Dutch authors.

Dutch accounting is likely to remain something of an enigma to American accountants. Yet a coherent picture is beginning to emerge, and there is reason to believe that the replacement value accounting which many think to be the only distinctive characteristic of Dutch accounting is but one manifestation of an impressively different organization of accounting. The Dutch, by using business economics as a foundation, appear to have developed a cohesive and fully integrated accounting philosophy and structure which is entirely at ease in its business and social environment, and within which replacement values constitute a natural and logical means of economic valuation.

There remain many unanswered questions about accounting in the Netherlands, particularly with respect to application of replacement values and the extent to which alleged benefits of business economics accounting are actually realized in practice. These as well as other intriguing questions certainly warrant additional attention to Dutch accounting on the part of American accounting practitioners and scholars.

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V. K. Zimmerman, *Director*

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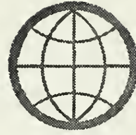

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A Note from the Editor

One of the continuing activities of the Center for International Education and Research in Accounting is the sponsorship of seminars where speakers from accounting and allied disciplines may share insights into the many international aspects which concern both academic and professional accounting. All but two articles in this journal are the texts of speeches presented at an international seminar in accounting sponsored by the Center May 7–9, 1970, on the Urbana campus of the University of Illinois. The Center is grateful to these speakers who gave so freely of their time and effort in the development of topics of relevance to accounting and its international concerns. We believe these articles can contribute to further understanding of accounting, particularly in its international context.

The diversity of topics presented in this issue indicates the contemporary breadth and importance of accounting. For example, this issue brings new information concerning accounting education and practice in specific areas, such as Finland, Peru, and India. Other articles deal with the important general concerns of international monetary practices, barriers to the international practice of accounting, and present and proposed research in international accounting.

Urbana, Illinois
Fall 1970

V. K. Zimmerman

On Authority

BERGEN EVANS*

At the very outset I must warn you that I am not an intellectual; I do not view the world with alarm and I have no message for the age. I assume that millions of other people have experienced as much, seen as much, and thought as much as I have, and that their conclusions are as valid as mine. I believe, however, that there is value in comparing experiences. If we agree, there is reassurance; if we disagree, there is an incentive to reexamine our evidence or our reasoning.

All of my life I have been an avid reader of histories. And one of the many pleasures one gets from reading history is the realization that man has survived in spite of himself — and the assumption that he will continue to do so for at least a little while longer. There are, however, three wholly new facts, any one of which may completely invalidate all previous human experience. These are (1) the atom bomb, (2) the population explosion, and (3) the pollution of our natural environment. But even these do not depress me too much. I am an unrepentant rationalist and believe that human intelligence has a small edge — very small but still an edge — on human stupidity.

The atom bomb, for instance, offers as much hope as fear, for nu-

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clear fission can give us power enough to remove all want, to make equality a reality, and to render deserts fertile. The population explosion has made birth control a primary necessity and, in so doing, has liberated — or is liberating — the largest slave group in the world. I have every confidence that within a very short time women will become human beings. For example, the mother of Edward Lear had twenty-one children; thirteen died early. Queen Anne had nineteen children and all died in their infancy. At the time of Catherine the Great, four of every five Russian children died at an early age. Our great grandmothers' lives were simply a shuttle from the maternity ward to the mortuary, in what Blake called "the marriage hearse."

The poisoning of our environment is the most serious of all these problems — and the most difficult to solve. All one can say at the moment is that it has happened very suddenly and taken us by surprise. But we are aware of it and will probably meet it. If we do not, we will not be the first species to have destroyed itself; and the last man, as our mass obituary, can repeat Lady Mary Wortley Montagu's dying words: "It's all been very interesting."

The solution of all of these major problems will require the full cooperation of all living people working in unison, and this will require considerable political reorganization. And it is about the various philosophies underlying human societies — countries and nations — that I want to speak.

I will confess that my interest in this subject has been sharpened by my growing impatience with a noisy minority in our colleges who insist that only by violence can we achieve peace, that injustice produces justice, and that tolerance comes through intolerance. That many younger faculty members seem to agree with them only shows how far we have been able to prolong adolescence!

The following dialogue illustrates an important aspect of authority:

Kent: You have that in your countenance which I would fain call master.
Lear: What's that?
Kent: Authority.

Authority is the power to adjudicate, determine, settle issues; the right to control, command.

The important consideration of Kent's fain is that Kent was a man. His desire for authority was not the desire of a weakling.

THREE POSSIBLE BASES FOR AUTHORITY IN SOCIETY

Fact and force, of course, have ultimate authority. If you are driving your roadster at eighty miles an hour directly toward a concrete abutment, there is no question as to which of the two of you — you or the abutment — is going to determine the issue at the moment of contact. So also, of course, with flood or famine or nuclear fission or pollution of the atmosphere or wastage of natural resources. With such things, of course, all mankind must come completely to terms. Man does not control nature, not one-millionth of an iota; he has to adapt himself to it or perish.

And you may call nature God or a manifestation of God, if you choose. But there are dangers in doing so; for the universe, as surveyed by science, shows no indisputable sign of having any concern whatever for mankind; and, in such manifestations as the Second Law of Thermodynamics, seems hostile to life, and the Heisenberg Principle of Uncertainty suggests that man has no more chance of understanding the universe than a dog has of mastering differential calculus.

This, too, of course, can be seized on as declaring the ineffability of God, his inscrutability. But if He is that inscrutable, then we know no more of his will than we do of his being and are reduced — or elevated, as you choose — to stating with Spinoza, in Archibald MacLeish's wording, that God is the boiling point of water. And while this carries the absolute authority of the abutment I mentioned, it carries neither guidance nor consolation, for such "authority" will, of course, exert itself automatically. We may consider Matthew Arnold's definition of culture as "making reason and the will of God prevail." But, surely, God will make the will of God prevail.

The authority I want to talk about is a much smaller matter than that. I want to talk about the basis for exerting control in human society. For no one, it seems to me, can observe the world, see the unrestricted ferocity of men, the vileness of which we all are capable, without realizing that without some restraint.

> Humanity must perforce prey on itself
> Like monsters of the deep.

There is enough homicidal fury generated in any rush-hour traffic in any city on any morning to destroy the entire human race if its fury were given the power its hatred longs for.

There are, it seems to me, three possible bases for authority in soci-

ety: (1) military, (2) religious, and (3) rational, and all three will — indeed, can only — exercise ultimate control through force.

Each of these, in practice, of course is to some measure interfused with, or dependent upon, both of the others. Caesar was a military dictator, but also Pontifex Maximus and Tribune for life, thus claiming the authority not only of the sword but of the gods and the populace as well.

MILITARY AUTHORITY

Military authority is naked force — woe to the vanquished! The sword offers no justification beyond itself: "You will do what I tell you to because I say so!" The young militants may serve as a contemporary example.

You can have a society in which a small group of fighting men compels a large group of workers to do whatever the military leaders tell them to. But this is largely a thing of the past because it can only exist, actually, in a primitive, usually agricultural society. And even here there are limits to the power of the rulers: they cannot, for example, starve the farmer to death or eat his seed grains since, in so doing, they are signing their own death warrant along with his.

In this kind of society there is very little wealth to share. Typically the ruling caste splits into factions that fight each other. The farmer has no loyalty to either group. He gives his grain to whoever takes it. He only wants to be let alone if that is possible. Of course you do not have a nation here at all. If a farmer was asked which side he was on — and was free to answer truthfully — he would say: "Tell me which side is going to win and I will be for them." This, I think, is the situation in Vietnam outside of the cities. And that is why the report that the Americans were going to make a deal with the Viet Cong and pull out would weigh more than all the dreadful atrocities the Viet Cong have committed. The farmer does not want to be a martyr or a hero; all he wants is just one authority — especially one that he can come to terms with.

As I have said, there are limits on the power of the military, even at the simplest level. No one man or group of men can govern others by force. They have to get others to do it for them. And the imperator becomes the prisoner (and often the victim) of the Praetorian Guard and the sultan of his Janissaries. A military authority moves always on the precarious edge of anarchy. Under it men "eat their meal in fear/ And sleep in the affliction of terrible dreams."

The power of a military government is increasingly limited as the society grows richer and the people are able to produce more and more things that the military rulers would like to have — fur coats, musical instruments, and so forth. To be able to produce these at all, the people have to have more skills, which means more education and training. They have to have more security, more rights they can count on, more wealth for themselves.

When you reach the industrialized level, the military power breaks down completely. The king's men can go out at harvest time and take the farmer's grain. But you cannot — as John L. Lewis said — "mine coal with bayonets." You cannot put a soldier behind every factory worker and miner. You can intimidate the workers by the threat of soldiers coming in unexpectedly and show them you mean business by public displays of savage cruelty. But to the extent that the workers are frightened, they become inferior, inefficient workers — as Russia is finding out. Concentration camps do not provide creative laborers any more than the cotton plantations did.

Sometimes a society that is in transition from one organization to another votes in a military dictatorship — as has been happening in Africa and South America. This may be a reasonable solution in a situation of crisis. But it is still inefficient. And, eventually, if the people are to get the things they want — if the dictator himself is to get the things he wants — the force has to be relaxed. Today the possibility of getting more of the good things of life — for rulers as well as for ruled — is making a purely military, dictatorial society obsolete.

The only reason for discussing this kind of society at all is to point out the difference between its employment of force and its exercise of authority to the use of force in a society which, like our own, seeks to be rational. It is true that in the rational society the majority has the power to force its will on the minority. But to do so would be expensive and inefficient, and in a developed society the majority never tries to do this. It tries, rather, to absorb the minority into the system, to make it profitable for them, too. And never, in a developed, modern society, is there a minority called "the government" that imposes its will by force on the majority, which is what the rule of force would mean (and is what the leftists claim is the situation in a capitalistic society).

The fact that force comes down on you when you get caught violating the system you subscribe to and support is a very different thing from doing whatever you are told to do just because you are so told. Most civilized people, for instance, when stopped by a traffic cop, feel

a large element of embarrassment in their mixed emotional response. There is often anger, because others seem to be getting by with what we are being punished for, but stonger than anger, in most Americans, is humiliation. One does not feel any humiliation at having the secret police come in the night — only fear.

Save in what were at least thought to be the most dreadful emergencies, no people has ever gone to the polls and of its own free will chosen a permanent military government.

RELIGIOUS AUTHORITY

In a family the adults have authority over the children. But a family is a unique kind of group, unmatched in any social organization in its structured authority. In the first place, the adult knows enormously more than a child, he is enormously wiser. When the adult thwarts the child he is almost always right.

In the second place, there is inside the family a natural, biological bond of love working both ways — protective affection on one side and trust on the other. This may fall short of the ideal sometimes but, even so, it is far and away stronger than the bond between a man and his neighbors, the natural bond of belonging to the same species. It is also true that the adult is stronger than the small child. But, as any parent knows, this does not do him much good. The parent can pick up an obstreperous child and lock him in a room or thrash him, but he still has an obstreperous child on his hands. No family could get along on the simple fact that the father has more muscle than the rest of the family. It is true that he has the physical strength to kill the child, but in most cases, built-in inhibitions would make this impossible. And it cannot even be used as a threat because the young child has not the faintest idea of what is meant by being killed. So as a threat it would be meaningless and as a fact futile, since a dead child is even less amenable to parental superiority than an obstreperous living child.

The pattern of the family can be projected into a social organization with God in the role of father. The visible rulers are then God's agents — servants left in charge while the parents are away, as it were. And this type of society can be very stable and its authority unquestioned and effective — as long as the belief or illusion is maintained.

To support the picture the rulers have to seem to be God's servants (as, in most cases, they sincerely believe they are — or believe they were). They have to observe the more conspicuous religious rituals and

they have to show a fatherly attitude toward the "good" people — those, that is, who accept their supremacy and authority.

The position of the rulers, under a religion sanction is — or was — pretty unassailable. Since floods, pestilences, earthquakes, and so on, are obviously God's doing, who is to say what God wills and what He does not? And who should know better what He wants than those whom He has appointed to run things? (The Old Oxford Proctor: "Gentlemen, your conduct has not only been displeasing to Almighty God but has offended me.")

Occasionally it may be plain to everyone that a particular ruler is unjust, that he is a bad servant, unworthy of the Father's trust. But this will all be put right when the parent gets back. All such injustices will be corrected when we see God — which will be after death.

Now once this religious picture of society was established it was pretty secure. There was nothing inside it, no Marxian "contradictions," to disrupt it. Every objection had been explained away in advance. But just as a society based on force is undercut and destroyed by increasing wealth, the religious type of society is destroyed by increasing education. And increasing wealth requires increasing education for its production. So, in order to have the good things we want, we have to have physicists, biologists, and so on. And science is based on questioning — something which the Church once sternly forbade (the Protestant churches as strongly as the Catholic) — because questioning cannot be restricted, in most men, to certain compartments of the mind and experience.

Now the results of this questioning over the past few centuries have been — I need not remind you — devastating to the religious (at least to the Christian) basic assumptions and suppositions. Darwin's destruction of the belief in Special Creation challenged the assumption that the Scriptures were factually true. Muller and Frazer showed disturbing likenesses between Christianity and other religions — the others being of necessity untrue. Freud and Pavlov questioned not merely the existence of a soul, but even, to a large degree, of consciousness and reason and suggested that morality was man-made.

Some scientists decided outright that there was no such thing as God. And almost all of them would reject the until recently unquestioned belief that He knows of and directs human affairs to the smallest minutiae. Few men today — scientists or laymen — believe what everyone believed a century ago, and most people only fifty years ago — that God interferes in our daily concerns and can be moved by our

submission or contempt to change events. There are undoubtedly millions in the United States today who believe in God. But there are very few educated people who believe that God appointed their mayor or that he decided the outcome of a presidential election.

Now when God is removed from the familial model of society — and, however regrettable it may be, he has been so removed so far as most educated people are concerned — the whole thing, as a source of authority, falls to pieces. That is, the intellectual difference between a child and an adult may be paralleled (or exceeded) by the difference between man and God. But it does not exist between man and man. No sober adult sincerely believes that his alderman is conspicuously wiser than himself. Part of the rebelliousness of adolescence is due to just this: the child, having become an adult, turns on his father in anger when he realizes that his father is not a superman. He feels the father cheated and lied to him, when he was a helpless child, by pretending to be omniscient and omnipotent (things, needless to say, few twentieth century fathers make any pretense of doing).

But, after damning his father, the adolescent still believes that the government is made up of supermen. And seeing those in power — whether in industry, politics, or the colleges and universities — as supermen, he sees their every mistake, every inadequate answer, and so forth, as due to malice, self-seeking, and so on. The dreadful, dreadful fact that the adolescent has to face is that the welfare of the nation, the upholding of authority, the fate of the human race, perhaps, is in the hands of men not very different from himself! And they are not keeping supermen out of the jobs; there just are not any supermen. We have to live with the human race.

Anyone who does not believe in a God-directed world and goes on talking about society as an extension of the family is talking nonsense because he is talking about a "family" with no adults in it. This is worth dwelling on because a great many "liberals" do just this. In fact, anyone who takes a "moral" approach to society is doing just this. By "moral," here, I do not mean a matter of governing one's own conduct by certain standards. I mean professing a belief in a system of conduct that is to be obligatory for everyone and is to be to everyone's advantage, whether he likes it or not. Morality in this sense is the social counterpart of the child's trust in the parent. The moral man is the man who does what God commands — and just because God commands it.

Now if there were a God and he really was issuing commands, this would be sensible and prudent conduct. But without God — and the

liberals, as a group, probably believe in God less than most of the population — the "revelations" concerning our obligations to our fellowmen require a lot more critical thought than those who profess them ever give them. Why, for example, should a man be compassionate? Why should he love his neighbor if he does not find his neighbor very lovable?

But these are questions which those who profess religious social ideals — without accepting the religious basis for them — resent having to answer. They see themselves as an elite who have a natural right to run things as they think they should be run; and they see those who do not share their beliefs as underdeveloped human beings — as, in fact, children, with themselves, of course, being the parent, which is to say God.

The Marxist society is a religious society. God has been depersonalized but he is very much there. The superhuman controlling force in the universe is something called "the dialectic of history" (I think Hegel believed that this was the mind of the cosmos). This thing is a living being. It has will. It has its own goals and drives relentlessly toward them. Man's happiness consists in cooperating with it. But this is a mystical, religious satisfaction. There is no other reward at the present time. The thing will be beneficient after Armageddon when all its opponents have been eliminated. But as of now, large portions of the human race are its implacable enemies and its friends have only the privilege of being martyrs. This does not make much sense, but that is the way they picture it.

In the good time to come, when the dialectic of history shall have completed its work, all men will live according to its will and be happy. This religious view of society under a good God is so thoroughly accepted by Marxist thinkers that they see all other societies as being under the control of a bad God, a devil, or an idol. The devil may be called "private enterprise," "the system," "imperialism," or any of a number of other abstractions. But they are never seen as abstractions — any more than the medieval God was seen as a hypothesis. They are seen as living entities, with their own wills and their own evil purposes. They are maliciously cunning and deliberately crush and enslave most of the human race. By "private enterprise" they do not even mean all successful entrepreneurs. These are merely the agents or priests of the false God. They are paid handsomely for their services. And they have the same moral traits as their master — they are cruel, malicious, bloodthirsty, and so forth.

It is these personalized abstractions that make it so hard for an

ordinary person to talk with a Marxist. The two just do not mean the same things by the same words. Neither side understands the other in the least. I imagine, for instance, that to tell someone from North Vietnam that the people ought to vote on national problems would be about the same as telling a twelfth century European that the people ought to settle the question of the Immaculate Conception by a vote.

RATIONAL OR SECULAR AUTHORITY

This is the theory that holds that government is a human device for maintaining peace in human society, enabling the individual citizen to be as free as possible to pursue his own interests so long as he does not interfere with others.

If every man had to defend himself individually against every other man, too much time and energy would be taken away from the things he really wants to do. The man who sows a crop wants to harvest it, not to fight off bandits. So the community as a whole appoints certain of its members to take care of this. And, of course, maintaining the peace means administering justice, and justice means the laws the community has drawn up, the social contract.

And these laws are not divinely ordered. They are simply for human convenience. They are completely secular. The assumption underlying them is that the chief end of man is to make men secure and comfortable and healthy. They vary from time to time, from state to state, from society to society. In almost every such code a citizen has been forbidden to take another citizen's life solely on his own initiative or to burn down another man's buildings. But other things may be included. In various societies at various times it has been felt that the welfare of the community required the forbidding of homosexuality, of working on Sunday, of smoking marijuana, of drinking alcoholic beverages, of eating meat and milk at the same time, and so forth. In a religious-based society the people are told that God forbids such things, and there is of necessity, then, the implication that they are for all time and forever wicked. In the rational society it is possible for the community to say, "Oh, we have changed our mind about that and you can do it. We were wrong," without causing serious mistrust of the government. In a religious-based society, however, this is very difficult and requires either a great deal of casuistry or engenders serious mistrust of the rulers in the populace. And, of course, the casuistry, over a long period of time, causes the same mistrust.

The contract also specifies what the administrative agency, the government, shall do about each infringement — whether the infringer shall be stoned, burned at the stake, imprisoned, fined, or sent to a psychiatrist. Theoretically the contract is made by all members of the community and applies to all the members alike (as the statutes did — not as in either a military-based or religious-based society). And this universality of application — democracy, we call it — curbs the severity of the law. To the extent that a man can imagine, about some infringement, "Someday that might be me or my son or daughter," he will be more lenient in judging the culprit. The man who cannot imagine himself being homosexual or working on Sunday or eating meat and milk at the same time will expect these things to be punished severely. But as people become more sophisticated, more civilized, less parochial, their imaginations improve and they come closer to the classical concept of "nothing human being alien" to them. And the penalties are relaxed. Our society has been moving steadily in this direction for the past fifty years. But a society can move in the opposite direction. The Puritans, for instance, came to this country to form a society of their own largely because the English and the Dutch societies were too lax for them. They did not want their children exposed to maypole dancing, to religious toleration, and to suchlike abominations. And any year now, America may decide that tobacco smoking is a crime.

In a community of any size the enforcement of the law will be modified by local public opinion. In the Negro slum areas in Washington a few years ago, the police made no effort to stop the numbers racket, because in those areas everybody was involved in it, including respectable, hard-working cleaning women, pillars of the church, and so forth. So the police concentrated on robberies and killings. Similarly, in New York the Prohibition Law was not enforced on ordinary citizens. You could always get wine in the poor Italian restaurants, though I suspect that in Kansas the law was enforced to the letter. The point here is that this flexibility, which would not be possible if the law were felt to be God's law and not be tolerated if the law were a military command, is a vital part of the contract — "the general opinion of the community." This varies from place to place, and the variation permits ideas to spread from place to place.

Also, enforcing the law — maintaining the peace — is not just a matter of keeping the militia in the streets. Very often (if you are not committed inflexibly to some "high principle" or have not mistaken

your own ideas for God's commands) there are easier ways of keeping things going. You can get rid of your troublesome illiterates by educating them, the unemployed by employing them, the sick by giving them medical care, and so forth.

Also, in running a complex, industrialized society, more is involved than merely preventing violence. No man can build an airline or a television channel for himself. But these things affect everybody for good and evil. So there has to be a central, mediating authority to resolve conflicts. But the principle is the same: government exists primarily to maintain order, to save the individual from interminable conflict and thus to leave him freer to go about his personal affairs. It provides an environment in which he knows what to expect next week.

All this, of course, is only a diagram. Things work out this way only more or less. Not everybody is consulted about the contract. Until only a very few years ago, for example, Negroes were not. And until a few years before that, women were not. Then the chances are that no man anywhere approves of everything in the system under which he lives. But most people approve most of it. And more people have found more security under it, at the cost of less restraint, than in any other known form of social order.

It might be asked: "If government is merely a matter of convenience, why should not one man kill another if that is the best way he can see to get the one thousand dollars he needs?" Well, the man supports the law against killing in so far as it applies to everybody else and everybody else supports it as it applies to him. So the law is supported. And in most cases murder would prove to be an expensive and inefficient way of trying to get one thousand dollars — so expensive and inefficient that only the most ignorant (or the mentally sick) would ever try it. Those who do, and are apprehended, will be punished. But this does not mean that the rational society rests on force, as does the military. It rests on the fact that everybody finds the state to his advantage, even the criminal in all matters except being caught and punished. (There is no point in stealing money unless the state guarantees its worth, no possibility of making a getaway unless traffic is controlled, no use writing threatening notes to tellers unless they can read.)

One additional point about this kind of authority: in a system of this kind, if the government is working at the maximum best, the citizen has no interest in politics. The teacher wants to meet his class, the

salesman wants to meet his customers, and if this is easy for them, they are content. They do not really care who gets an airline or a television franchise until it affects them. If the planes going over his house interrupt his sleep, if the television shows a lot of highbrow stuff instead of wholesome football games, or has weirdies who use words he thinks his kids should not hear, then he gets irritated with the government and demands that something be done about it. But he does not do anything about it, directly and by himself; he does not park his car on the runway or attempt to bomb the TV station.

He, the citizen, is also extremely patient about infractions of the law that he happens to see (so long as they do not affect him). He is not his brother's keeper. After all, he is paying the government good money to take care of these things for him. When any number of citizens actually interfere, physically, to right a wrong — when the crewcuts decide to clean out the long-haired demonstrators, or the whites start marching against the blacks or, increasingly, the blacks start marching against the whites — then government has broken down! And people who urge others to take direct, physical action are promoting anarchy, however lofty their motives (all anarchists, by whatever name they have identified themselves, have professed lofty principles). And when people act directly, instead of leaving such things to their hired agents, the police and the courts, all serious-minded men are alarmed, first because these outbursts demonstrate (and increase) loss of confidence in the government and also because these small activist groups are not in a position to know where justice lies or what is the most lasting solution of the problem with which they are concerned.

Times come when a government has to be changed, just as one might fire a gardener or get a different lawyer. You could wait, of course, until irritation or discontent had built up enough pressure to drive the incumbents out. But this is disruptive. It is better (smoother) to give the people a chance to change the government at regular intervals.

So we have our regular election periods. When these times come, with our two-party system, what happens is that each party tries to guess what the 70 percent of the public surrounding the center wants. To the extent that they guess right, the two parties will be saying pretty much the same thing. Many people get agitated about this and say with disgust that "there is no essential difference between the two major parties," always with the implication that there ought to be and that the

public is being swindled by the fact that there is not. What they seem to want is for each party to champion the ideas and desires of opposing extreme minorities and then slug it out.

But this is nonsense and things are much healthier and saner the way they are. The politicians rarely state clear-cut issues and it does not matter, because the public is not listening anyway. The public — the great majority — makes its choice not between platforms but between the thoughts "Things are going fine — keep right on" to the incumbent party or "Things are pretty bad — you try it" to the challengers.

And this is really very sensible. It is what you would expect from a relatively satisfied citizenry. The very charges are evidence of an amazing system, of a satisfied public.

A newspaper article in Scotland (1803) tells of a certain man's grandfather who was called before the Kirk session and reproved for having invented a pair of fanners for cleaning grain.

It was felt that God had devised the wind for this purpose and that it was properly pious to wait for a suitably windy day to winnow your grain — and not to be sneaking in with some smart-aleck invention that suggested God was not on the job or, infinitely worse, that a clever man could improve on God's ways.

Faustian Man — modern man — is distinguished from all men who have gone before him by his assertiveness: if God sends the whirlwind to scourge us, we go aloft and seed it with dry ice. If he sends a plague, we vaccinate and sprinkle DDT around. If the rain falls upon the waste places of the earth, we carry it in pipes to fertile places to suit our convenience. If three score and ten are the years of a man's life, we endow chairs in geriatrics. If the poor must be with us always, we mute their complaints with Social Security. And, worst of all, threatened with Hell and God's wrath, we simply dismiss both as being beneath serious consideration.

Some Aspects of Finnish Financial Reporting Practices

REGINALD JÄGERHORN*

There are, I am told, about 1,500,000 incorporated companies in the United States, some 50,000 of which are listed or traded on the various stock exchanges. In Finland, the number of active incorporated companies is just over 20,000,[1] of which no more than 45 are listed on their exchange. The slight Finnish interest in investing savings in stock is reflected by the fact that the stock exchange turnover for the year of 1969 was $8,780,000. The corresponding figure for total stock exchange turnover in the United States was in the magnitude of $180.88 billion. Per capita turnover in Finland was only $1.87 compared with $880.00 in the United States.

I shall have occasion to return to other fundamental differences between the two countries which, to some extent, may explain dissimilarities in the structure of their respective annual reports, but I first wish to give a general description of the annual report of Finnish firms, primarily of companies listed on their exchange. In conclusion, I shall touch on the subject of legislative reform efforts, which lately have

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[1] This number does not include apartment-building companies, which, according to Finnish law, can be incorporated. The number is an estimate of active companies since the register includes a large number of companies which are inactive but have not been taken off the register.

gained in intensity, and which may have far-reaching effects on the minimum scope of annual reports in the not-too-distant future.

In my talk, it should be understood that when I speak of the annual report I am referring not only to the balance sheet, the income statement, and the report submitted by the board of directors, but also to the entire annual publication which a company listed on a stock exchange publishes, including notes on the financial statement and other information on operations.

In Finland we have the questionable honor of having what is perhaps the world's oldest corporate law, dating from 1895; our accounting law, which was enacted in 1945, contains no special requirements for listed corporations regarding annual reports, with the exception that at least one of the annual auditors must be a certified public accountant. Current Finnish law does not even stipulate that the board should submit a statement, though it is very common for larger companies to publish such a review voluntarily. In the United States you fervently maintain in financial accounting that annual reports do not furnish sufficient data about subdivisions of activities, that they are not sufficiently concerned about the future, and that there is an obvious need for multivalues of certain accounting categories. Further, I have the impression that the American corporations listed on the stock exchanges, or at least some of them, endeavor to give this information in their annual reports.

In Finnish business, such data are almost entirely lacking in annual reports. Therefore, it might be justifiable, even at this stage, to consider the importance of asking the question, "For what purpose is an external financial statement prepared?" If you attempt to answer this question, departing from the position of those interested in the information, it would be easy to arrive at a hypothetical discussion where requirements for data are put forward for planning and control. But in Finland the financial statement serves first and foremost in the role of determining the annual distribution of profits policy. In the distribution of profits is included, here, both the government's and the shareholders' shares of profits. For this reason there have been limitations on the possibilities of a single balance sheet reflecting planning and control aspects, especially since certain accounting conventions, such as the principles of realization and conservatism, have been allowed to dominate.

Another important difference between the United States and Finland is the fact that in the United States the board of directors decides the dividend distribution action while in Finland this decision is made by

the shareholders at the annual meeting. Bearing in mind that the financial statements also may have an important control task when judging the extent to which the management has fulfilled its tasks, it may be appropriate initially for Finnish corporations to require more and better financial data of a more fundamental character. This would facilitate calculation of the corporation's "real" annual income which means disclosing all tactical decisions made in connection with the financial statements. This type of data may then, first, be useful for certain control tasks when analyzing *ex post.*

TWO CATEGORIES OF INFORMATION USES

In order to discuss the question of the need for information, it might be meaningful to distinguish between two categories of users of the information contained in financial statements. This could be done from the point of view of the users' decision situation and the factual possibilities of their securing various kinds of additional information.

Using these criteria, Category I would include interested parties who are able to observe the corporation beyond the official annual report. The group comprises the corporation's management, larger shareholders, the predominant creditors, and the internal revenue authorities. Members of this group have access to reports which are prepared for special planning and control purposes, and therefore have no real need of information from the annual report. Category II would then include the rest of the interested parties, such as minority shareholders, potential shareholders, lesser creditors, customers, and employees. A characteristic of the members of this group is that their opportunities to make observations are limited and are chiefly determined by the external information policy the management conducts. Their need of additional information, including the opinion given by the auditors on the financial statement, differs for this reason from that of the parties of Category I. As I now proceed to introduce in more general terms the financial statements of the Finnish corporations listed on the stock exchange and to scrutinize certain aspects of their general information value, I will do so from the point of view of the needs of those in the second category.

FINNISH FINANCIAL STATEMENTS

According to Finnish accounting legislation, the balance sheet is considered secondary in importance to the income statement. When preparing the balance sheet, the assets are usually valued at no more than

their cost price and not at their probable or present value. The rules regarding the preparation of balance sheets are, however, sparse, and for this reason there is a complementary general clause which stipulates the application of generally accepted accounting principles when nothing else is stated. These principles have been subjected neither to elucidation nor to detailed clarification in our country, which has led to a relatively wide freedom in the interpretation of this general clause.

The simultaneous existence of a variety of alternative practices, all in accordance with generally accepted principles, presents a major problem to anyone reading financial statements. Added to this, since the Second World War Finland has experienced a comparatively large depreciation in purchasing power. Thus, in Finland, the annual rate of depreciation[2] amounted, for example, to 4.7 percent during 1958–68, compared with 1.9 percent in the United States, according to information from the First National Bank of New York. In the Finnish taxation system the nominalistic concept of income has been formally applied, but it has also been possible, in practice, to apply other concepts of income — for instance by sanctioning a considerable freedom in inventory valuation methods. Bearing in mind that the income tax percentage applied to the net-incomes-before-income-taxes amount, shown in the financial statements, has been approximately 60 percent and higher, and that the rules of the tax laws usually have made open provisions and valuation adjustments as a result of the falling value of the currency less inviting from a profitability point of view, the turning of profits into hidden reserves has often offered the only way to prevent inflationary profits from being subjected to taxation and distribution.

Such measures, however, have not simplified the work of the external users of financial information since businesses in general have not been disposed to give information on changes in their secret reserves. On 1 January 1969 a new tax law came into effect by which inventories are stated at cost or market, the cost being determined according to the first-in, first-out (FIFO) method. The Finnish taxpayer is at the same time given the chance to write down freely this initial value, at no more, however, than 50 percent. Many corporations had had their inventories written down to a value lower than 50 percent of the FIFO value and also had written down deliberately on purchase commitments, which now, in principle, may no longer be done. The new law forced

[2] Depreciation computed from unadjusted data. The value of money is measured by reciprocals of official cost-of-living or consumer price indices. First National City Bank of New York, *Monthly Economic Letter* (September 1969).

such companies, in their financial statements for 1969, to account for their secret reserves in inventories for those parts of the goods that had been written down to a value in excess of 50 percent of the FIFO value, and the entire secret reserves in regard to purchase commitments which previously had been written down.

Since the inventory reserves consist to a large extent of price-level gains, and as this would lead to a strained liquidity because of the tax consequences, intermediate regulations have stipulated that the fully disclosed inventory reserves may, under certain conditions, be transferred to a separate development reserve and listed among the liabilities. A development reserve may be established by a corporation by debiting the inventories account and crediting the development reserve account. This development reserve is subject to taxation in two stages within a ten-year period, but alternatively, it can be partially or wholly used for writing off book values on depreciable fixed assets. In this case, the inventory reserve can be viewed as subject to indirect taxation. To further economic growth, help the competitive position on international markets or to improve the employment situation, a tax-free transfer from the development reserve account to the owners' equity account is allowed when certain types of investments are made. I note that when corresponding changes in taxation laws regarding the valuation clauses were made in West Germany and Austria, businesses were allowed to disclose in the accounts their inventory reserves without a tax assessment.

VALUATION PRACTICES

I have purposely raised the question of the valuation clauses in our tax laws because they have greatly influenced, and will continue to influence, Finnish accounting behavior. The valuation of inventories will still remain the most important means of regulating profits, but because the FIFO value method is the basis, the write-downs, during periods of rising prices, will be partially fictitious. So long as firms do not disclose voluntarily the changes in inventory reserves together with separate notations on price fluctuations, the work of the external analyst is necessarily considerably restricted. Personally, I am of the opinion that in the long run, if it is wished to maintain capital intact, it would have been a more fortunate solution to have given businesses an optional opportunity to apply the last-in, first-out (LIFO) method, as is allowed in the United States, even if this would have meant completely or partially abolishing the possibilities of write-downs.

The depreciation amount is mainly determined by the depreciation clauses in the tax laws. Both straight-line and decreasing-charge methods of depreciation are applied, and these depreciations are tied to historical costs. As in Sweden, a Finnish firm can, under certain conditions, create an investment reserve which yields certain taxation advantages; this means that fixed assets not yet acquired can be written down in an accounting sense in advance.[3] There is not only a law relating to the provision for investment reserves, but other tax laws as well. Of these laws allowing extra depreciation, allowances which have been passed to influence and guide corporate behavior to conform with business cycle and localization policies may be mentioned. But if, as a result of this action, depreciation shown on the financial statements differs markedly from the corporation's normal depreciation needs, a comparison of profits over a period of time or between different firms becomes awkward. Certain Swedish corporations have begun disclosing concurrently tax depreciation, including the provision for investment reserve, and accounting depreciation, the latter computed on current values and regarded as operation costs. They then have shown the difference between tax and accounting depreciation in a separate section of the income statement. Such full disclosure has not, however, won acceptance in Finland as yet.

A more common international problem, I find, is the amortization of intangible investments in such categories as research and development, new products, and personnel. How should such investments be allocated over time? The Finnish tax laws make it possible to consider them as costs for the period or, alternatively, to amortize them over their service life. But when, at the same time, the intangible investments' share of the total investment tends to grow larger and may vary both over time and between different corporations, it is clear that their very existence causes problems for the external analyst, as do time and company comparisons.

As to the question of the revaluation of fixed assets, I want to note that it is not uncommon for certain assets, above all land and buildings, to be revalued, for example, by debiting the plant account and crediting the plant valuation adjustment reserve account. The amount in the plant valuation adjustment reserve account is usually shown separately

[3] For more details on the Swedish system, see Sven-Erik Johansson, "An Appraisal of the Swedish System of Investment Reserves," *International Journal of Accounting* 1 (1965), pp. 85–92.

initially but is often later transferred to the owners' equity accounts and used, for instance, for a stock dividend transaction. Cases may also arise when the revaluation amount is transferred to a reserve account and is used to cover taxes which conflict with the principles of realization and conservatism and the spirit of the law, as long as the plant in question has not been sold. Covering taxes and other costs by treating them as direct charges to retained earnings, as well as treating revenues as direct credits, is in conflict with the all-inclusive income statement, which we call "the congruence principle" in Europe, but it appears rather commonly. In many cases, however, the statement issued by the board may include additional information which makes it possible to take into account these deviations.

THE INCOME STATEMENT

I will now move to the income statement and very briefly suggest questions which have not arisen earlier. The report form has not gained acceptance in Finland and income statements are, therefore, prepared in a single-step account form. In fact, it is a mixture of gross and net accounting reporting. On the credit side in the income statement we find the gross profit, which is the result of deducting from sales the cost of goods sold, wages, and other expenses that can be regarded primarily as operating costs. In practice, there are variations with regard to those costs which are offset against sales and those which are included in other ordinary costs. There is a rule, however, that outside of the income statement, wages which have been deducted from gross profit should be disclosed either parenthetically or in a separate section at the bottom of the statement. The same applies to gross sales. Gross profits are naturally influenced by inventory valuation principles. Even if hints of changes in the secret inventory reserves can be found in some cases, these are more the exception than the rule and I have not yet found complete information on the total of the inventory reserve in a single Finnish annual report.

On the question of the contents of the statement by the board of listed corporations, the general statement can be made that there is great variation in informational value. The least informative contain no supplementary statements to the financial statements whatsoever; the most informative do, again, contain fundamental additional data. A notable development toward more informative reports can be dis-

PROFIT AND LOSS STATEMENT
Year ended 31 December 1970

Costs and Expenses			*Income*	
Ordinary Costs			*Ordinary Income*	
Office Salaries	—		Gross Profit	—
Rent Expenses	—		Interest Earned	—
Interest Expenses	—		Other Ordinary Income	—
Taxes	—		*Extraordinary Income*	—
Depreciation	—		*Net Loss*	—
Other Ordinary Costs	—	—		
Extraordinary Costs		—		
Net Profit		—		
		—		—

cerned even if the most informative statements are far from satisfying the demand for open information disclosure. First, there is a lack of detailed specifications of valuation principles and the disclosure of their effect on operating income. A certain picture of the general level of the annual reports is obtained if you consider that as late as 1968 a "funds" statement was included for the first time in the annual report of a listed Finnish corporation. Seldom does one find consolidated balance sheets included in the annual reports, in spite of the frequent incidence of closely held corporations. Information on future plans is sparse and the occurrence of monthly and quarterly reports and notes on the financial statements has been very infrequent. Speaking in terms of the four basic standards for accounting information recommended by the Committee to Prepare a Statement of Basic Accounting Theory (relevance, verifiability, freedom from bias, and quantifiability), the Finnish annual report conflicts especially with the standard of freedom from bias.[4]

The question can, of course, be asked as to how the occurrence of less informative balance sheets changes the auditors' obligations to furnish information. Is it possible to expect auditors to regard it as their task to complement and adjust annual reports that give inadequate information? I shall not answer the question here, but refer to my doctoral dissertation where I investigated the prevailing situation at the end of the fifties on the basis of random samples of auditors' reports from

[4] Committee to Prepare a Statement of Basic Accounting Theory, *A Statement of Basic Accounting Theory* (Evanston: American Accounting Association, 1966).

corporations of varying sizes.[5] In judging the information value of auditors' reports, I proceeded from the receivers', that is, the readers', view and, according to the measuring method I applied, in their opinions auditors' reports are not informative. A separate study, applying the same method, was restricted to bankrupt corporations and showed that the auditors' reports in the majority of such corporations, while the companies were still in a critical financial situation, were not informative either.

FUTURE DEVELOPMENTS

In conclusion, I shall briefly comment on the outlook for the future. As I mentioned earlier, the changed tax rules have paved the way for more informative financial statements. Also, the general development abroad toward a more open accounting practice — I am thinking above all of conditions in Sweden and Germany with institutional conditions more related to ours than, for instance, the American ones — has presumably created a more positive attitude by management toward disclosure. A fundamental increase in the information value of financial statements can thus be expected to occur during the seventies. The Nordic legislative work which has been conducted during the sixties on a new corporation law is significant and has resulted, on Finland's part, in a report delivered in November 1969. The bill contains provisions which expand the information that corporations must supply; for instance, consolidated balance sheets will be required. The importance of having only one law covering all the Nordic countries cannot be overemphasized here. Remembering that hearings may require a long time and that a sufficiently long transition period must be permitted, the Nordic corporate law can hardly became law before 1974–75 at the earliest.

Finally, it can be said that in the spring of 1969 a draft for a new Finnish accounting law was prepared which, in its requirements for information, went even further than the proposed corporate law. This draft encountered a certain amount of resistance, however, primarily because parts of the accounting rules differed from those in the proposed bill of the Nordic corporate law.

[5] Reginald Jägerhorn, *Informationsvärdet hos finländska aktiebolags revisionsberättelser* [The value of information in the audit reports of Finnish companies, with an English summary], Ekonomi och Samhälle. Skrifter utgivna av Svenska Handelshögskolan Nr 12 (Helsinki, 1965).

The Outlook for the International Monetary System and Implications for Subsidiary Valuation

GUNTER DUFEY*

RECENT CHANGES IN THE INTERNATIONAL MONETARY FRAMEWORK

Not long ago the Bretton Woods system, as our postwar international monetary arrangement has come to be known, celebrated its twenty-fifth anniversary. As so frequently occurs these days, these years seem to bring to the open an inherent revolutionary spirit. The rapid changes which the system has undergone in the past few years have changed it entirely from the original, which was conceived a quarter of a century ago at that small Canadian resort.

While the overall development of new concepts has been very gradual, the resulting changes have manifested themselves in two decisive events:

1. The adoption of the two-tier gold market in March 1968.
2. The negotiating, passing, and issuance of Special Drawing Rights (SDR) on 1 January 1970.

Which one of these is of most importance is a moot point, but their effects can actually be contradictory. Very roughly, it appears that the

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creation of "paper gold," as SDRs have correctly been called, can be interpreted as giving new life to the traditional features of the Bretton Woods system. SDRs provide additional liquidity to finance imbalances in countries' external accounts, thus allowing them to defer the painful adjustment process and subsequently make for more exchange rate stability.

The adoption of the two-tier gold system in March 1968 appears to have altogether different effects ultimately. Besides separating the private and official markets for the barbaric metal, this arrangement incorporated a related, but more important, feature. At the time the United States let it be known — very subtly, never openly, but nevertheless beyond doubt — that it would not be willing to exchange large amounts of dollars for gold with any country which requested it.[1] It is this "understanding" that changed the international monetary system from a gold reserve currency system to a dollar standard. The slow decline in the price of gold on the free market is a good indication of the length of time it took for the financial world to become conscious of this state of affairs. Of course, the international status of the dollar is supported by that well-known institution, the Eurodollar market, the predominance of U.S.-controlled international operations, an extensive world-wide network of U.S. banking facilities, and, last but not least, the eminent position of the United States in world trade.

This, then, is a sketchy outline of the current status of the international monetary system. Now the crucial question is, "Where do we go from here?"

Clearly, the future of the system depends on the reaction of other countries to the establishment of the dollar standard. If the United States pursues a responsible monetary policy, that is, if she can bring under control the loss in the international purchasing power of the dollar,[2] there will be little difficulty. In combination with fixed exchange rates, a stable reserve currency, the dollar, simplifies the task of maintaining internal stability for foreign monetary authorities; an internally generated inflation, for example, will bring about a swing in the balance of trade. This means that the simultaneous reduction of exports and the rise of imports will increase the total volume of goods and services available in that country for internal use relative to the

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[1] To this point see also the candid analysis of Miroslav Kriz, "SDR's and Gold: Where Now?" *Euromoney* (December 1969), pp. 10–11.

[2] This can best be defined as the excess rate of price rises in manufactured goods relative to other industrialized countries.

effective money supply. Thus, the rate of inflation will be less than it would otherwise be. This process is known as an export of inflation; of course, cyclical unemployment can be alleviated in the same fashion under such a system.

The real problem starts when, under the present conditions, the international purchasing power of the dollar cannot be effectively maintained. Since this is the less propitious, but more likely, outcome, other countries face a painful dilemma. Either they must succumb to the process of imported inflation or they must revalue their currencies, jeopardizing their export positions and thus, their high levels of economic activity and employment. It may well be that the second alternative will be taken increasingly with every rise in the rate of inflation in the United States. This may be done on a country-by-country basis. During April, Secretary Volcker of the U.S. Treasury was in Europe to begin negotiations on a system to insure that this process will take place in an orderly fashion.[3] The immediate concern is that as interest rates in the United States decline relative to those in Europe, private holders of dollars may switch to liquid assets denominated in other currencies and, therefore, put excessive amounts of dollars into the hands of foreign central banks.

Instead of exchange rate adjustments made by individual countries, the emergence of monetary blocs whose members establish fixed exchange rates among themselves but allow their common reserve unit to float against the dollar may be witnessed. Members of the European Economic Community are likely to be the first to resort to such action,[4] but it is conceivable that Japan and its economically dependent Southeast Asian countries might ultimately follow suit by forming a Yen bloc.

Under either of these alternatives some sort of exchange rate flexibility may emerge, perhaps in a variety of disguises such as a "wider band" or "crawling peg" arrangement.

IMPLICATIONS FOR INTERNATIONAL FINANCIAL MANAGEMENT

This is the backdrop against which financial management of corporations with international operations must formulate its policies. To go into the trends, magnitudes, and significance of the foreign expansion

[3] See also M. S. Mendelsohn, "Group of Ten Agreement on Exchange Flexibility Plans," *American Banker* (April 27, 1970).

[4] See, for example, Ottmar Emminger, "Die Rolle der Währungspolitik in der Europäischen Integration" reprinted in *Deutsche Bundesbank-Auszüge aus Presseartikeln* 29 (1970).

of corporations in developed countries would be superfluous. Jack N. Behrman[5] and Sidney E. Rolfe[6] have discharged the task of analyzing this movement in masterly fashion in their recent publications. The question with which the second part of this paper is concerned can be stated as follows: "How does the trend toward increased exchange rate flexibility affect financial management in the international corporation?" It focuses on one key aspect which has been chosen because it may have significance for international accounting. With this in mind, it may be necessary and useful to analyze first the changes in the economic environment, which occur as a result of devaluation, for example,[7] in a country where subsidiaries of international corporations operate. Borrowing a leaf from basic macroeconomics, one can state that the first and obvious effect of a devaluation is a tendency for export revenues to increase and the cost of imported inputs to rise. These price changes may range from zero to 100 percent of the amount of devaluation, depending upon the competitive situation, or price elasticities as an economist would say, and one may even occasionally find a case of perverse price behavior. However, the general rule holds very well in diversified economies. As a consequence, both export industries and import competing industries in that country will tend to expand output in the face of increased market demand and the expectation of higher profitability. It is true that these industries will not receive the full benefits of increased sales revenues as costs of imported inputs rise. In addition, as these industries expand their output the demand for domestic inputs increases, leading to price rises; the extent of these rises is largely a function of the availability — or lack — of unemployed resources and input mobility.

The pressures on costs and prices can be so strong that any positive balance of payments effects of the devaluation will be offset, especially if the devaluation-induced inflationary process becomes dynamic. Therefore, governments are regularly compelled to resort to supporting policies designed to decrease absorption of output for consumption and domestic investment. Such belt-tightening measures regularly include selective tax increases to achieve forced savings, and tight money and selective credit restrictions to reduce domestic investment.

[5] Jack N. Behrman, *Some Patterns in the Rise of the Multinational Enterprise*, Research Paper No. 18, University of North Carolina, 1969.

[6] Sidney E. Rolfe, *International Corporation* (Paris: The International Chamber of Commerce, 1969).

[7] A revaluation would affect the same variables. They would just move in the opposite direction.

Under these conditions, it is the task of financial management to safeguard the profitability of the subsidiary. Clearly, not all individual subsidiaries are equally affected; the ultimate effect on profitability depends upon the position of a subsidiary in the environment. By way of illustration, consider the position of two subsidiaries of approximately the same size, type of industry, and balance sheet makeup. Further, assume for the moment that these firms have achieved optimal assets and liability structure; that is, there are no excess cash holdings which are not needed for profitable operations, no excess inventories, payables, and so forth. In brief, the firms are at the utopian state which the economist terms equilibrium. The *only* difference, but a decisive one, between these two is that one, subsidiary X, sells all its output abroad while it employs local material, labor, and management virtually exclusively. The other, subsidiary Y, sells all its output in the country where it operates while getting virtually all of its inputs from abroad. (This would be the case in a highly automatic assembly operation, for example.) Visualizing the income statements of these two firms, say a year after the devaluation, it is possible to see that the development of their operating earnings has been entirely different from the pattern that would have emerged had there been no devaluation. Therefore, financial management should obviously take different measures to counter the different effects of devaluation on the two firms.

However, in the real world, corporate financial managers usually base their defensive measures on the concept of exposure. In the literature[8] this is defined as the difference between what a company stands to lose (or to gain in the case of a revaluation) because of a change in the currency in terms of the unit of account — for U.S. corporations, the dollar. Technically, exposure is defined as:

Net LC assets
− Fixed assets
____
Exposure

or

Current LC assets
− LC liabilities
− Fixed assets
____
Exposure

[8] Michael T. Wells, "Devaluation and Inflation and Their Effects on Foreign Operations," reprinted in Kenneth B. Berg, Gerhard G. Mueller, and Lauren M. Walker, *Readings in International Accounting* (Boston: Houghton Mifflin Co., 1969), p. 265; George C. Watt, "Devaluation," *Price-Waterhouse Review* (Winter 1967), pp. 14–21.

The method of exact computation of exposure has been argued at great lengths in writings in this field. In particular, the treatment of inventories has received considerable attention.[9] For anyone who looks at this whole problem from a financial management viewpoint, the important issues center not so much on these technicalities as on the question of to what decisions and policies this concept has led. The policies both advanced by writers in this field and executed by practitioners fall into two broad categories. One comprises all those measures by which any positive exposure is reduced, such as substitution of local liabilities for dollar liabilities, reduction of local currency short-term assets — primarily cash and receivables — and accumulation of more local currency denominated liabilities. The second method is to hedge the remaining exposure through a forward sale of the currency involved.[10]

Unfortunately, all these measures will do little to cope with the *real* effect of devaluation on the firm. Take subsidiary X; under the important assumption that the balance sheet was in equilibrium, not only have the holders of the subsidiary lost *nothing* by the devaluation, but their income statements after the first and subsequent years will show that their earnings are increased *because* of the devaluation. The argument that certain portions of the bundle of assets and liabilities have individually decreased in value is based on the piecemeal approach. Recent accounting literature agrees that no devaluation loss occurs on fixed assets. However, it would appear reasonable that a minimum level of local cash, local receivables, and other short-term assets are as necessary to the ongoing operation of that subsidiary as are brick and mortar.

A loss is experienced only on those local currency assets which were in excess of the requirements and were destined for transfer to the parent company anyway. This emphasizes the significance of balance

[9] "Accounting for Devaluation," reprinted in Berg, Mueller, and Walker, *Readings in Accounting*, pp. 284–91; American Institute of Certified Public Accountants, *Accounting Research and Terminology Bulletins* (New York: Institute of Certified Public Accountants, 1961), pp. 111–16; National Association of Accountants, *Management and Accounting Problems in Foreign Operations*, NAA Research Report no. 36 (March 1960), pp. 1–71; Samuel R. Hepworth, *Reporting Foreign Operations*, Michigan Business Studies, vol. 12, no. 5 (Ann Arbor: University of Michigan, 1956).

[10] See, for example, Neil Ulman, "Corporate Treasurers Make Moves that Shake World Monetary Scene," *Wall Street Journal* (29 May 1969), p. 1; Bernard A. Lietaer, "Managing Risks in Foreign Exchange," *Harvard Business Review* (March/April 1970), pp. 127–38.

sheet equilibrium for the analysis.[11] What about liabilities? Clearly it would make no sense to substitute local liabilities for dollar currency liabilities if the real cost of local funds were higher than those denominated in hard currency. Here, the real rate of interest is defined as the nominal rate of interest adjusted for the devaluation of interest payments and principal. On a long-term loan the difference between nominal rate and real rate is surprisingly small.

Taking up the case now of subsidiary Y, one can see that the real loss which it may sustain because of the devaluation has little to do with the potential loss computed on an exposure basis. It would be sheer coincidence if the two figures were equal. The first is the present value of the devaluation-induced difference in future net cash flows accruing to the subsidiary; the second amount denotes the loss of value of liquid assets, were they to be repatriated after the devaluation. This assumption is not very realistic.

It is true that the cases of these two subsidiaries are extreme examples, but extremes are often very useful to illustrate general principles. Now, this paper does not purport to express expert accounting opinion and there may well exist good reasons to translate accounts in a certain way. But it *is* concerned with the use that is made of the results of certain accounting conventions. The concept of exposure results in policies which protect book values — or, to be a bit facetious, accounting conventions — while it is the *profitability* of the firm which is in need of protection.

Discussions with corporate financial executives leave an observer with the impression that they recognize the issues here, but that there are pressures from two sources which drive them to pursue less than optimal policies. One is internal. Ever since the early 1960s the treasurer's function in corporations has come to be regarded as a profit center through aggressive fund management, instead of a strictly supportive activity to financially grease the wheels of marketing and production. Thus, there is great pressure to make money through active currency juggling. The second, perhaps more important, pressure comes from investors' concern with reported earnings and changes in reported

[11] At this point the practitioner might be tempted to reject the ideas of this paper because of the difficulties involved in computing the optimal combination of assets and liabilities. This is admittedly a difficult undertaking but businessmen are constantly engaged in this process for different reasons anyway. No manager is willing to hold excess cash, receivables, inventories, and so forth not necessary for ongoing profitable operations.

earnings, largely irrespective of the causes of these changes. In the case of our subsidiary X, for example, the company would have shown, *ceteris paribus,* a decrease in reported earnings because of the write-off on certain assets and liabilities.

CONCLUSIONS

In light of these considerations, it appears reasonable to venture the opinion that the crucial issue of the translation of foreign subsidiary accounts, and particularly the interpretation thereof, is by no means settled. Specifically, all practices must be considered inadequate which advise uniform treatment of balance sheet items in a certain way — that fixed assets are always to be translated at the historical exchange rate, and cash always at the current exchange rate — without due regard to the real effects of any exchange rate variations on a given subsidiary.

Varying exchange rates are just one small aspect of a bigger problem. In a world where dynamic change has become the basic condition instead of an occasional event, any measurement and valuation is becoming increasingly challenging, as the very standards and yardsticks are themselves subject to change.

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A Review of the Accounting Profession in India

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In recent years there has been much controversy over the future of the accounting profession in India.[1] In this paper I wish to discuss some of the current controversial issues after a brief historical perspective and a review of the present status of the accounting profession in India.

HISTORICAL SURVEY AND PRESENT STATUS OF THE ACCOUNTING PROFESSION IN INDIA

A Brief Historical Survey

Accounting in some form has existed in India for centuries. I will, however, begin my survey from the time accounting in the modern sense developed in the nation.[2] The historical development of the accounting profession is combined with the development of company legislation.

The Indian Companies Act of 1866 contained the first provisions concerning both the accounts and audits of companies. The new Indian Companies Act of 1913, modeled on the Companies Consolidation Act of 1908 of the United Kingdom, made radical changes in these provi-

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[1] Basic details of the accounting profession in India may be found in the work prepared by the AICPA Committee on International Relations, *Professional Accounting in 25 Countries* (New York: American Institute of Certified Public Accountants, 1964).

[2] See also the report of the Joint Committee on the Future of the Accountancy Profession in India published as a supplement to *Chartered Accountant* 17 (1968).

sions. The object of these changes was to entrust the account and audit work to professionally qualified persons. Collaterally, the subject of accountancy was introduced in schools and colleges in India in order to train the needed professional individuals, and certain authorities were empowered to issue restricted or unrestricted certificates to practice accounting. The main audit work, however, was performed by British Chartered Accountant firms operating in India.

In 1932 the government, wishing to regulate the accounting profession in India, established the Indian Accounting Board. The members of this board, known as Registered Accountants, were nominated by the government and had the power to audit the accounts of companies and also to certify to the correctness of those accounts.

In 1944 a company limited by guarantee was registered under the name of the Institute of Cost and Works Accountants. The main object of this company was to train persons in cost accounting, and qualified persons were registered as members of this institute. The training and membership were administered through a system of examinations and the issuance of certificates to successful candidates.

In 1947 India was granted national independence and the new government immediately established the Accountancy Expert Committee. The purposes of this committee were to examine the tentative scheme for an autonomous association of accountants in India in the light of opinions and comments received from provincial governments, commercial bodies, and so forth, and to indicate, where necessary, amendments to the existing laws, or the terms of separate legislation. On the recommendations of the committee, legislation was enacted in 1949 and an autonomous body, the Institute of Chartered Accountants of India, was established. The institute was given the authority and the responsibility to train future accountants. Its members, designated as chartered accountants, were authorized to audit and certify the accounts of companies without pressure from any source.

In the late 1950s the importance of cost accounting to the economic development of the country was perceived. With the increasing tempo of industrialization in the country, the collateral development of cost accounting was realized to be as important as financial accounting and auditing. As a result, the Cost and Works Accountants Act was enacted in 1959. Under its provisions, a statutory body, the Institute of Cost and Works Accountants, was established to assume the responsibility to train cost accountants and to maintain the requisite standards of professional qualifications.

Present Status of the Accounting Profession

Although the Chartered Accountants Act was passed in 1949, not until 1956 was the Indian accounting profession granted any real status. The Companies Act of 1956 required certain types of companies to have their accounts audited by a member of the Institute of Chartered Accountants. Since then, the importance of the Indian accounting profession has increased. We shall now examine the present status of public and private accounting in India.

The functions of public accounting are performed in India by chartered accountants, equivalent to the certified public accountant in the United States.[3] To work as an auditor, the chartered accountant must be a member of the Institute of Chartered Accountants of India and be licensed to practice by the institute. Membership[4] in the institute is governed by the Chartered Accountants Act of 1949, which provides for the registration of those who have passed the examination of the institute and who have completed the apprenticeship period, either as an articled clerk or as an audit clerk. The examination of the institute consists of three parts: preliminary, intermediate, and final. A minimum university qualification of the intermediate level in commerce or in liberal arts and an apprenticeship in a chartered accountant's practice are the essential requirements for admittance to the preliminary examination. During the period of apprenticeship, the aspirants are given theoretical knowledge, primarily through correspondence courses of the coaching board of the institute, on-the-job training in auditing in the CA firms, and practical training in the industry. The apprenticeship period is normally four years, but in certain cases it can be reduced to three years.

The auditor is appointed by the shareholders at a general meeting. Since the national industrial structure is of a rather special nature, the managing agents actually look after the interests of the shareholders. As a result, the appointment of the auditor to the company is normally made by the managing agent and he remains as the auditor of the company as long as he enjoys the confidence of the managing agent. This practice is, however, changing quite rapidly, as the practices of managing agents have come under criticism from the public as well as from Parliament. As a result of this criticism, the government is considering abolishing the managing agent position and auditors are being freed from their influences.

[3] AICPA, *Professional Accounting.*

[4] The present membership of the institute is approximately 10,000.

As an auditor, the chartered accountant is required to report to the members of the company on the accounts examined by him, as well as on the balance sheet and the profit and loss account, and on all documents which are attached to the reports. The report of the auditor must state that he has obtained all information and explanations which to his best knowledge and belief were necessary for the purposes of audit, that the company has been maintaining proper books of accounts, that the financial statements are in agreement with the books of accounts, and that these financial statements contain the information required by the Companies Act and present a true and fair view of the company's affairs.[5]

In performing the functions of an auditor, the chartered accountant is required to exercise reasonable care and skill consonant with professional standards. The statutory audit is concerned with the honesty and integrity of the mangement only; it does not deal with the prudence, propriety, or efficiency of the management.

Apart from the duties of an auditor, the practicing chartered accountants also perform the following functions:

1. They advise their clients on tax matters. They prepare tax returns for them and represent them before the tax authorities.[6]
2. Sometimes they do the work of the secretary of the company, acting as the registrar and transfer agent of its shares and debentures and establishing valuation for shares, especially for private companies for estate duty, sales, and other purposes.[7]
3. Some of the leading chartered accountant firms also provide management services to their clients. These services include the forming of companies, installation of accounting systems, and inventory management advice. The industries, however, generally are not taking advantage of the management services provided by chartered accountant firms.[8]

The functions of private accounting in a company are performed by persons designated as accountants and bookkeepers. In a small company,

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[5] P. B. Menon, "Duties of Auditors Under the Companies Act, 1956 (as amended)," *Chartered Accountant* 15(1966), pp. 19–21.
[6] AICPA, *Professional Accounting.*
[7] Ibid.
[8] This has been a recent development. Its success depends, on the one hand, upon the realization by business concerns that chartered accountants can provide useful managerial services by advising them of modern management techniques, and, on the other hand, upon the quality of services rendered by the chartered accountants, which will foster confidence by the management.

only one accountant may be responsible for the accounting work; in a large firm, however, a distinction is generally made between financial and cost accountants. The financial accountant may be a person with professional qualifications from a college only, or, in addition to having a college education, he may be a member of the Institute of Chartered Accountants. The nature of his functions will vary from industry to industry.

The cost accountant will generally be a member of the Institute of Cost and Works Accountants, although he may have professional qualifications from a college or be a member of the Institute of Chartered Accountants. The importance of cost accounting only very recently has been recognized by business. Certain types of companies are forced by the government of India to use cost accounting systems, as the government may request a cost audit at any time. This cost audit is in addition to the statutory audit, and will be discussed later.

Primarily, the functions of the cost accountant are limited to maintaining cost records and advising management of the cost of the products produced by the company. In a very few companies the accountant is called upon by management to assist in planning and controlling processes by the application of modern analytical techniques. The Institute of Cost and Works Accountants, whose members are qualified in these modern techniques of management accounting, is attempting to make companies aware of the importance, applications, and advantages of these tools, as well as of the service which its members can render to them in this regard. The Institute of Chartered Accountants has also realized that the future of its members depends largely on their knowledge of modern management accounting techniques, and has begun training them in these techniques. The members who succeed in the prescribed examinations of the institute are awarded a post graduate diploma in management accounting by the institute.

CURRENT CONTROVERSIES OVER THE FUTURE OF THE INDIAN ACCOUNTING PROFESSION

Persons inside as well as outside the Indian accounting profession are becoming more and more aware of the importance of accounting to the economic development of the nation. Their interest can be judged from the discussions which are in process concerning the future of the profession in the country. In the following pages, certain of the important controversial issues which will have great impact on the future of the accounting profession in India are considered.

Inadequate Disclosure of Information in the Financial Statements

The Companies Act of 1956, as amended, has prescribed certain general principles for maintaining accounts and preparing financial reports. Other than this legislation, there are no binding statutory regulations which relate to the maintenance of accounts of companies. Recently, however, the Institute of Chartered Accountants has begun preparing guidelines for audit purposes.

The Companies Act, as amended, does not detail regulations for the maintenance of accounts and the preparation of financial statements and, as a result, no uniformity in reporting the financial position of the companies to the shareholders and others exists. Many have said that the information disclosed in the financial statements is not adequate, and more reliable disclosure of information in the statements is essential to foster the confidence of interested groups, such as shareholders, bankers, and the general public. Ranagarajan believes, however, that there is no need to disclose more information in the financial statements, since "many shareholders and investors are guided more by the opinion of share brokers and financial columnists than by their own reading and understanding of company accounts. Banks appoint their own valuers to value not only fixed assets but even inventory."[9] This line of reasoning does not seem to be justified. The advice of brokers to the shareholders would be influenced by the disclosure of the information in the financial statements, and it is likely to be sounder when adequate and correct information is available. The expenditure on extra valuation procedures by banks could be avoided under certain circumstances if the disclosure in the financial statements were adequate and reliable.

Disclosure of information in the financial statements varies with the nature of the companies. Singhvi has examined the types of companies which generally do not disclose adequate information. His findings are that companies which are small in size, managed by the Indian management, and owned by a small number of stockholders are likely to disclose relatively less information.[10]

To improve the presentation of the financial statements and the disclosure of adequate information in these statements, the Institute of Chartered Accountants instituted an award for the best presented accounts of companies in the statute form prescribed under the Com-

[9] A. C. Rangarajan, "Disclosure in Company Accountants — A Caution Against Over Enthusiasm," *Chartered Accountant* 17 (1969), pp. 531–33.

[10] S. S. Singhvi, "Characteristics and Implications of Inadequate Disclosure: A Case Study of India," *International Journal of Accounting* 3 (1968), pp. 41–42.

panies Act of 1956. In addition to the first award of a silver shield, certificates of merit are awarded for the next best entries.

The disclosure of information in the financial statements can be improved when the nature of inadequacies is known. We will now examine certain items of the financial statements in which the disclosure of the information is not considered adequate. Naturally, the following is not a thorough and complete analysis of the inadequacies in the disclosure of information in the financial statements.[11] It may be suggested that this type of analysis should be done for each item separately, as well as for the financial statements as a whole.

The balance sheet is generally prepared in the prescribed T-accounts form, in which the assets appear on the right side and liabilities and owner's equities on the left side. The assets in the balance sheet are generally classified into current assets, investments, and fixed assets. The current assets items include, among others, inventory and trade receivables. The basis of inventory valuation must be disclosed in the balance sheet; it is, however, not unusual to find the following remarks in some cases, "Inventory valuation as certified by the managing agent or directors." So far as trade receivables are concerned, no distinction is made between current or noncurrent trade receivables. All trade receivables, whether they mature in a year or a longer period, are grouped together under current assets.[12] As a result, the information regarding current assets is likely to be inadequate and sometimes misleading.

The fixed assets are listed in the balance sheet under one composite heading, and further details are generally given in a note attached to the balance sheet. Fixed assets are required to be valued at cost or, where cost cannot be ascertained, at book value. It is not required, however, to disclose them separately under each heading (that is, the total value of assets shown at cost and the total value of assets shown at net book value).[13] As a result, the method of valuation for different items of fixed assets is not mentioned.

The valuation of fixed assets is closely connected with the depreciation of assets. The Companies Act requires that a minimum amount of depreciation must be provided in the accounts before any dividends

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[11] For a comparison of financial reporting in India with that in Australia and the United States, refer to: N. Das Gupta, "Financial Reporting in Australia with Special Reference to India," *Chartered Accountant* 14(1965), pp. 307–17; and N. Das Gupta, "Recent Trends in Financial Reporting in the USA with Reference to India," *Chartered Accountant* 15(1967), pp. 634–39.

[12] Gupta, "Recent Trends," p. 636.

[13] Ibid.

can be declared. "This minimum can be computed either by applying rates allowable for tax purposes to the book value of each depreciable asset or by reference to the number of years for which depreciable allowances are given for tax purposes before a specific residual is reached."[14] Management decides the depreciation amount, over and above the minimum amount, after considering the income it wishes to report. The additional depreciation is credited to the reserves. Although no details are normally disclosed in the balance sheets, the auditor is required to disclose in his audit report information concerning the depreciation methods employed. He is required to note the difference in the provision for depreciation if the company changes from the "written-down value method" (declining balance method) to the straight line method. The law, however, does not specify whether or not the companies can change the depreciation method retroactively. Recently, certain companies switched from the written-down value method to the straight line method retroactively, so that they might reduce their past losses or show greater profits. By so doing they may pay dividends and may indicate a higher value of assets in order to obtain larger secured loans.[15] This has raised certain controversies in the profession.

The liabilities and the owners' equity portion of the balance sheet is generally subdivided into current liabilities and provisions, long-term debt, reserves, capital, and surplus. The law makes no distinction between current or long-term liabilities, and liabilities are listed under the current liabilities and provisions caption. For example, long-term liabilities for deferred payments for the purchases of machinery are generally shown under this heading.[16] While the law provides that short-term loans and advances be shown separately and that unsecured loans should be given separately, the disclosure of liabilities remains inadequate.

No standard form has been legally prescribed for the profit and loss statement. What is legally required is that the profit and loss statement must clearly reveal the various items comprising the income and expenditures of the company, arranged under the most appropriate headings, and it must disclose separately information prescribed by law. The statement must be prepared in such a way that it clearly discloses the income of the company for the period. The usual Indian profit and

[14] AICPA, *Professional Accounting.*
[15] Pravin P. Shah, "Current Controversies Regarding Depreciation," *Chartered Accountant* 17 (1969), pp. 489–92.
[16] Gupta, "Recent Trends," p. 638.

loss statements do not give detailed information concerning current and prior period items. As a result, the accurate amount of the current year's earnings is generally not clear from the statement.

Nationalization of Auditing and Rotation of Auditors

A few years ago an investigating committee appointed by the government of India noted that well-known companies were following certain questionable practices in the companies' affairs. Criminal suits were filed against the offending managing agents and the management of the companies. Questions were also raised as to why auditing did not reveal these practices in most cases. Were the rules and regulations for auditing the accounts so incomprehensive that the auditors could not detect the irregularities, or had the auditors been aware of the irregularities and were parties to these offenses?

Since then, the Companies Act of 1956 has been amended to incorporate the changes necessitated by the investigations of these companies. However, the most important effect of these investigations for the accounting profession has been that certain lobbies in the Parliament felt that the independence, freedom, and honesty of auditors can only be maintained when the auditing profession has been nationalized.[17] It was advanced that nationalization would end these undesirable business practices and would be an effective way to regulate and supervise the operations of all important public companies. The question of nationalization was also discussed in a seminar organized by economists,[18] and at various times in the national press[19] as an effective cure for most of the undesirable practices of business and, thus, for the economic ills of the society.

Although the question has been discussed frequently, until now no detailed proposal for nationalization has been presented. It appears, however, that the persons in favor of nationalization wish the auditors to be government officials and the appointment of auditors for the companies to be decided by the government instead of the stockholders.

The Institute of Chartered Accountants in India has vigorously criticized these suggestions, saying that if the members of the profession are dishonest, mere nationalization will not achieve their mental transformation. The government itself is at present embarked upon a vigor-

[17] See R. Venkatesen, "Unfair Criticism," *Chartered Accountant* 18(1969), pp. 5–6.
[18] "Profession of Accountants," *Chartered Accountant* 15(1967), pp. 441–43.
[19] "Nationalization of Audit," *Chartered Accountant* 13(1964), pp. 47–48.

ous campaign against corruption in its ranks which is admitted to exist. Giving a dishonest person the cloak of government clothing will not make him honest, particularly when dishonesty is said to be widespread in government.[20] The institute has further argued that as far as breaches of law are concerned, adequate remedies exist under the present law to punish persons guilty of illegal acts as well as to punish their accomplices.[21]

Discussions on this proposal have just begun and will definitely influence the government, though it cannot be predicted which direction the controversy is likely to take. Let us hope that all issues connected with the problem will be considered before the government of India makes a decision or gives its opinion.

Certain persons in Parliament do not wish to go so far as to nationalize auditing. Rather, they feel that the term of an auditor with each company should be limited to achieve an improvement in the quality of auditing and to ensure the independence, freedom, and honesty of the auditor. They allege that the repeated audit of a company by an auditor or an auditing firm leads to fraternization and to an improper audit.[22]

The Institute of Chartered Accountants has also criticized this move and views the allegations as vague and unsupported.[23] The institute feels that the disadvantages of the rotation of auditors far outweigh the advantages gained. By rotation, the continuity in audit work, which is important to understand and appreciate the entire scope of the company's activities, would suffer significantly. The institute argues that it would not be fair to remove an auditor from an audit simply because he has been doing the job for several years. The important point should be whether he performs his duties well. In case he fails in performance of his duties, legal action is available.

Some of the junior members of the institute are, however, not very happy with the views of the institute. They support the suggestion to rotate auditors, but on different grounds. They believe that the audit work in India is being monopolized by a few auditing firms and that

[20] "Nationalization."

[21] "Nationalization"; "Profession"; and Venkatesen, "Unfair Criticism." Also refer to R. N. Sen, "Further Controls on Auditors," *Chartered Accountant* 18(1969), pp. 310–13.

[22] See: "Auditing the Audit Function," *Chartered Accountant* 18(1969), pp. 207–08; Venkatesen, "Unfair Criticism"; and R. Venkatesen, Address of the President at the Twentieth Annual Meeting of the Council, on 15 September 1969, published in *Chartered Accountant* 18(1969), pp. 209–15.

[23] R. R. Jain, "Appointment of Companies' Auditors by Rotation," *Chartered Accountant* 18(1969), pp. 251–52.

new entrants must necessarily content themselves with audits earning lower fees.[24]

Cost Audit

The amendment of 1964 to the 1956 Companies Act stipulates that the companies engaged in mining, processing, or manufacturing activities shall maintain proper books of account relating to the use of materials and labor for the purpose of a cost audit.[25] The ideas behind such a stipulation appear to be (1) to induce the company management to be more cost conscious; (2) to be able to control the activities of the companies more effectively; and (3) to control the prices of the products of the companies as and when desired.

The cost audit involves an independent and critical examination of the statements for computation of the actual cost of the product or products manufactured by the company as well as the records from which such statements are made. The cost audit is in addition to the normal statutory audit. All industries are not subject to this audit, which is required by the Indian government under the following circumstances:

1. Where a company has been given a contract by the government under which the government must pay actual costs plus a certain percentage for profit.
2. In cases when tariff protection is required.
3. For the establishment of prices in the case of certain commodities.
4. In the case of profiteering by monopolistic units or of inefficiency in important companies.

The cost auditor does not need to report to the shareholders but is required to send his report to the Company Law Board and to send a copy of it to the company. The cost auditor is not an agent of the shareholders, as is the financial auditor, nor an employee of the company, as is the accountant of the company, although he is paid by the company. He is virtually a government servant.

The cost audit may be performed by a member of the Institute of Cost and Works Accountants or a member of the Institute of Chartered Accountants qualified for cost auditing. The special qualifications of the chartered accountant for performing cost audits have not yet been

[24] "Auditing the Audit Function."

[25] See V. B. Haribhakti, "Implications of the Cost Audit," *Chartered Accountant* 3(1965), pp. 138–39; "Cost Accounts and Audit," *Chartered Accountant* 13 (1965), pp. 361–63; and A. Aiyer Shanker, "Why a Cost Audit?" *Chartered Accountant* 14(1966), pp. 448–53.

clarified. The Institute of Chartered Accountants is quite unhappy with the virtual prohibition of cost audit assignments for members, although it claims its members are fully competent to do this job.[26]

There is a great deal of misunderstanding about the nature of the cost audit, as it has never been described in detail. The results and advantages of the cost audit still remain to be determined, and in the future we will be able to judge whether or not it can achieve the objectives for which it is intended.

Audit of the Companies in the Public Sector

Huge amounts of public money have been invested in the companies established by the government of India in the public sector. It is imperative that the functioning of these industries be controlled and that their accounts be properly maintained and audited. Any irregularities are reported to the public. (The nature of irregularities in these companies will not be in the overstatement or understatement of their assets and liabilities, but refers to such things as misappropriations of funds, frauds on the company, favoritism, and so forth.)

The objectives and motives of companies in the public sector are quite different from the motives of companies in the private sector. These companies are not established with a profit motive, but with one of service. They are formed in the interest of the national economy for development of technology and economic growth, and sometimes even for national prestige. As a result of these motives, it may sometimes be necessary to sustain losses. It is important that the losses incurred be weighed against the advantages obtained and that the misuse of scarce resources be avoided. The audit of the companies in the public sector thus takes on different dimensions, and the statutory audit required for the companies in the private sector is no longer adequate. The statutory audit, which is only a propriety audit, ensures honesty and integrity in financial reporting and confirms that there has been no infraction of statutory provisions, but it is not concerned with the efficiency of the management. The efficiency audit, required for the companies in the public sector, should highlight any mismanagement aspect which has resulted in an inefficient, uncompetitive, and burdensome company.

According to present practice, the auditor and comptroller general of

[26] See V. B. Haribhakti, "President's Page," *Chartered Accountant* 16(1967), pp. 225–26; and V. B. Haribhakti, Address of the President at the Nineteenth Annual Meeting of the Council on 13 September 1968, published in *Chartered Accountant* 17(1968), pp. 193–220.

India is responsible for audits of the public sector companies. He entrusts audit work for certain companies to the practicing auditors and gives them instructions as to how he would like to have the companies audited. Sometimes he supplements the work of the practicing auditors with another audit performed by the auditors of his department.[27] This present system of auditing has not, however, added to the efficiency of these companies, as is evident by the succeeding audit reports. Managements have tried to explain the reason for inefficiency as caused by the multiplicity of audits and instructions from government departments. They believe that the audits and the instructions have had an adverse effect on the initiative of management, which is so important for the efficient functioning of companies.

Recently the government of India appointed an Administrative Reforms Commission to review the affairs of companies in the public sector and make recommendations for the improvement of their efficiency. Concerning the audits, the Administrative Reforms Commission has recommended the establishment of four or five audit boards, each dealing with a special sector of public enterprises. It is proposed that these boards consist of five members, three of whom should be from the office of the auditor and comptroller general as full-time members; two others are to be part-time members nominated by the government. The commission has not, however, specifically suggested that at least one member of the board should be a practicing auditor. The Institute of Chartered Accountants believes that the problem of auditing the companies in the public sector will not be solved by constituting audit boards which ignore the practicing auditor. They believe that correctly defining the basic concepts and objectives of audits for the companies in the public sector is the right type of approach.[28]

The institute is quite right in stressing that the proper definition of the basic concepts and objectives will do much to remove the present disadvantages of current audit practices. This is true not only for the companies in the public sector but also for the companies in the private sector. But the important question — whether or not the present audit structure for the companies in the public sector is appropriate to solve their problems — remains unsolved. Apparently the structure is not appropriate, as cases of mismanagement of these companies are on the

[27] Paper presented by M. P. Chitale at the Ninth International Conference held in Paris, published in *Chartered Accountant* 16(1967), pp. 227–35.

[28] "Audit of Public Sector Undertakings," *Chartered Accountant* 17(1968), pp. 133–34.

increase, despite efforts to define the concepts and objectives for auditing these companies. It cannot be said at present whether or not the changes suggested by the commission in the audit structure would improve the efficiency of the companies. It appears, however, that these are not radical changes, and whether or not they will be able to achieve the objective of improving the efficiency of the enterprises is to be seen.

Unification of Accounting Profession

As mentioned earlier, there are two professional accounting institutes in the country: the Institute of Chartered Accountants and the Institute of Cost and Works Accountants. These institutes were modeled after the institutes of the United Kingdom. Certain senior persons concerned with the accounting profession have felt that the Indian accounting profession should be unified and that professional institutes should not be established for each special branch of the profession. The recent trend toward unification of the various accounting professional institutes in the United Kingdom has encouraged some Indian accountants to ask their government to take similar steps. In 1966 the government of India asked both institutes to form a joint committee to inquire about and to examine the future of the accounting profession in India.

After two years of deliberations, the joint committee decided with a majority vote that (1) the Cost and Works Accountants Act of 1949 be repealed; (2) the Institute of Cost and Works Accountants be merged with the Institute of Chartered Accountants of India; (3) all the members of the new Institute of Chartered Accountants be designated as "chartered accountants"; and (4) no one be allowed to use the designations "cost and works accountant," "certified accountant," or "registered accountant." The recommendations were made to the government of India.

There were, however, a few dissenting votes from the members of the Institute of Cost and Works Accountants, and those members appended a dissenting note to the report. Recently they have been very active, and as a result, most members of the Institute of Cost and Works Accountants who had previously supported the idea of unification have apparently withdrawn their support of the plan.

It is now over a year since the report of the joint committee on the future of the accounting profession was submitted to the government of India, but the government has not yet expressed any opinion. It appears that, in view of recent controversies, the policy is to wait and see. In the meantime, the members of both institutes are making open allegations

against each other and accusing each other of self-interest and submitting to pressures.[29]

Without examining the details of the divergent views of both institutes, it appears that these views are partially based on logic and partially generated by the fears and emotions of the members. The idea of merging a smaller institute with a larger institute is not finding favor with minority members. In a developing country such as India, where resources are scarce and opportunities of employment for professional persons are limited, the multiplicity of professional institutes within a single profession may, on the one hand, mean a waste of scarce resources, resulting in an impediment to the growth of the profession as members become involved in useless controversies; but, on the other hand, specialization within the profession may be dictated by the need for specialized personnel to increase the tempo of industrialization. Let us hope that reason will prevail with the members of both institutes, and that the whole subject will be considered in a calm atmosphere in the larger interest of the country, keeping in mind the special environments in which the profession has to function.

Future of Accounting Education in India

In a brief historical survey of the accounting profession, the teaching of accounting in India was traced back to 1866. Since her independence, the question of education has been engaging the attention of Indian government officials, educators, and politicians. Using the example of the United Kingdom, the professional accounting institutes in India were established and were empowered to impart theoretical education as well as on-the-job-training to the accounting profession aspirants. The basic accounting subjects of bookkeeping and the preparation of financial statements were also included in the curricula of the commerce schools and colleges.

With the industrial development of the country, the need for the improvement of education in the accounting field has also been recognized. It appears, however, that the persons responsible for accounting education in India still favor the idea of imparting accounting education through the professional institutes. Their thinking in improving the educational processes, therefore, centers on improving the courses offered by the professional institutes and not in changing the national educational structure for accounting.

[29] "A Nation Gets . . . ," *Chartered Accountant* 17(1968), pp. 191–92.

We cannot deny the fact that the professional institutes have been performing their job efficiently. This does not imply, however, that the system in vogue has been the best one and one which will be able to meet the future needs of the country. Considering the importance of the accounting profession in the industrial development of the country, the role of accounting in providing information to management, and the development of modern techniques for the generation of information, it appears doubtful that the professional institutes will be able to train sufficient numbers of individuals for the future.

The examination of future accounting education in India should not be limited to an evaluation of courses offered by the professional institutes, but rather, should include a review of the structure of accounting education itself. The experiences of countries such as the United States and West Germany, which lead in accounting education in the world, can be of valuable help in framing the future accounting education system in India. On the basis of experience in these countries, the basic teaching and training of accountants should occur in the universities and colleges, as is the case with other professions.[30] This education can be supplemented by on-the-job-training in the practices of the chartered accountants or in industry.

The professional institutes can, however, continue with their examination system to recruit members. Instead of taking the responsibility for coaching students, these institutes should invest their limited resources and energies in research aimed at formulating guiding principles for the practicing accountants, an activity which would be of greater service to professional growth.

Development of Accounting Principles and Concepts

In India, the principles and concepts used to maintain accounts and to prepare financial statements are derived primarily from statutory requirements, as specified in the amended Companies Act of 1956. With the increasing industrialization of the country, the accounting function has become more complex and numerous practical problems must now be faced by Indian accountants.

To help the practicing accountants, basic principles and concepts must be developed to meet the accounting problems created by industrialization, and these principles and concepts must be properly defined. In the absence of standardized principles and concepts, the

[30] S. S. Kothari, "Task and Training of the Accountant of Tomorrow," *Chartered Accountant* 16(1968), pp. 359–62.

audits of accounts are likely to be influenced by subjective factors, though the auditors may apply their professional skill before giving their opinion. The question as to which institution should be responsible for the development of such principles and concepts arises, and is pertinent, not only to India, but also to other countries. While the comments in this article are particularly applicable to India, the inferences drawn may well be applied to other countries.

The Institute of Chartered Accountants of India has recognized the need to provide guidance to its members in controversial accounting matters. The institute has under consideration a proposal to constitute an Accounting Principles Board, apparently based on that of the AICPA in the United States, which would aid the institute in providing proper guidance to its members.[31] The important question arising in this regard is whether or not the opinions expressed by the institute, and the guidelines it provides for its members, are binding on the companies. It is obvious that these opinions and guidelines have no legal backing. In case of controversy, the acts of Parliament specify the legal requirements.

If any requirements for the maintenance of accounts and the preparation of financial statements are to be newly prescribed or revised, and to be followed by all companies, an amendment to the Companies Act is required. The process for legislative approval of such amendments is lengthy. Moreover, it does not seem to be logical that the law-formulating body should burden itself with routine matters, and it would, therefore, be worthwhile to consider simplifying the procedure for prescribing or changing these requirements. It may be suggested that the Company Law Board be authorized to prescribe or change these requirements within the general framework approved by the Parliament. The Company Law Board should, in turn, appoint a committee consisting of the board's members, members of the Institute of Chartered Accountants, and other experts in this field, which should advise the board on important matters. The board should then act upon the advice of the committee.

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[31] V. B. Haribhakti, "Accounting Principles — Uniformity vs. Flexibility," *Chartered Accountant* 16(1968), pp. 647–48.

How Can Barriers Against International Accounting Practice Be Eliminated?

JOHN L. CAREY*

Robert Ardrey, in his classic work, *The Territorial Imperative,* makes clear that all animals — including human animals — have perhaps no stronger instinct than the instinct to defend their own territory. Birds, beasts, and people just naturally resist invasion. They don't consider whether or not the invasion may be of benefit to them. They instinctively resist it. Furthermore, unless the odds against them are overwhelming, the defenders usually win.

In the case of accountants — a particular species of animal — the territory they will defend is not primarily geographical: it is the field of accounting practice to which they lay claim; not only present clients, but also potential clients.

In some of the states in the United States, local accountants have fought bitterly to prevent accountants from outside these states from establishing offices in their territory. Some of these efforts have succeeded for long periods of time — until the odds against the defenders became overwhelming. It may be expected that in foreign countries in which any organized body of accountants exists, there will be strong resistance against the entry of accountants from other countries; even

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if the invaders gain a foothold, there will be continuing efforts to expel them. History supports this expectation.

THE INTERNATIONAL NEEDS

If this prospect were of concern only to accountants, the world could afford to let them take the consequences. But, in this particular case, the territorial imperative is a roadblock in the path of international investment, international trade, and the industrialization of underdeveloped countries and, therefore, a serious obstacle to the equalization of living standards, friendly relations among countries, and world peace.

Private capital cannot flow freely over international boundaries unless the investors can receive reliable information about what is being done with their money — and this means financial statements audited by accountants in whom the investors have confidence. (Personally, I hope the same thing will soon be true of public capital — government-to-government loans and investments. I am told this is a delicate political problem, but I suspect that the U.S. Congress would be less inclined to cut appropriations for nonmilitary foreign aid if there were audited financial reports of what was done with the taxpayers' money.)

Furthermore, it is difficult, if not impossible, for a country to become industrialized without developing an indigenous accounting profession at a high level of competence. In a free-enterprise country, entrepreneurs cannot tap the savings of their own people without established capital markets, which in turn require sound financial reporting, including independent audits. In any democratic developing country, a government cannot assist infant industries, or support needed social reforms essential to the maintenance of an adequate labor corps, without an equitable income tax. The presence of a competent, ethical, disciplined accounting profession is essential to the administration of an income tax law.

Equally important is the indispensable need of developing industries for sound internal accounting — cost controls, budgetary controls, sound financial management — for which a supply of trained accountants is necessary.

But a native accounting profession cannot arise in a vacuum. Until industrialization and the resultant flow of credit and investment and the existence of income taxation have created a demand for trained accountants, it can hardly be expected that a supply of competent accountants will become available.

THE USE OF HISTORICAL PRECEDENTS

Thus emerges a chicken-and-egg problem. Industrialization of underdeveloped countries is essential to world prosperity and peace. Successful industrialization requires capital, income taxation, and accounting know-how, all of which in turn require a competent native accounting profession. But this requirement must be preceded by industrialization.

Foreign capital and foreign accounting know-how are available, but nationalistic sentiment — the territorial imperative — obstructs the entry of foreign accountants on whom the availability of both depends.

On the surface, the problem seems insoluble, but fortunately history provides a possible answer.

Where did the industrial revolution begin? Great Britain.

Where did the modern accounting profession originate? Great Britain.

Where did the United States get much of the capital it needed to move from an agricultural to an industrial economy in the late nineteenth century? Great Britain.

Where did the auditors come from to provide British investors with reliable financial information? Great Britain.

Why did not the organized American accountants keep the British accountants out? There were no organized American accountants.

Who first organized an American accounting profession? British accountants who had initially come here to protect British capital.

What eventually happened? American accountants, many of them trained by British firms, assumed the practices first carried on by the British.

This historical example suggests that free trade in accounting offers the best solution to our problem. But times have changed and the parallel with present situations is not precise.

In the first place, the U.S. experience occupied several generations. Things moved more slowly then. Today there is impatience for progress — a strong demand for instant prosperity.

Second, there was no organized native profession to resist the British invaders in 1886. If there had been, the territorial imperative might have evoked resistance. By the time the U.S. profession was organized, largely under the leadership of the British accountants in this country, the British were an integral part of it. Some American accountants resented their competition — they were getting much of the cream of

the business — but the British were so deeply rooted in the professional societies, and in the American economy, that it would have been impossible to expropriate them even if all the American accountants had wanted to.

But the vast majority of the Americans did not want to. The British accountants learned to speak American and fraternized with the natives. Close personal friendships were formed. Besides, the British were making conspicuous contributions to the advancement of the art, and to the development of technical and ethical standards, through which the U.S. accountants could see they were benefitting greatly. In other words, while the natives might be losing something to foreign competition, they were gaining more through the foreigners' help in developing public confidence in the profession and consequent expanding opportunities for CPAs.

A PROGRAM FOR TODAY

How can this lesson from history be adapted to suit the needs of a more impatient age — and an age in which nationalism is rampant? I think it is possible with goodwill, good faith, and some sacrifice on the part of American and other foreign accounting firms.

The first step would be to get the support of all U.S. government agencies concerned with loans, grants, and aid to developing countries, and with private investments abroad — and, if possible, the support of the United Nations.

With this support, ask the State Department to request the governments of developing countries to permit foreign accounting firms to establish offices in their countries under the following specific conditions:

1. The foreign firms would work only on engagements originating outside the country, involving foreign investment or loans or grants; *or* on engagements referred to them by native accountants, or in which native accountants requested their collaboration.
2. The foreign firms would not hold themselves out as engaged in practice locally: no names on office doors, no listings in directories, no business cards, and so forth. They would agree to refer to native accountants any local engagements offered to them, and collaborate with the native accountants if desired.
3. The foreign accountants would speak the native language, train native staff, participate actively in the local professional society, teach in the local universities, and in every way possible help to build up the

native accounting profession and assist in the industrialization of the country.

In submitting this proposal, it would be stressed that when the native profession had developed to a point at which international bankers and investors were willing to rely on it, there would be little need for continuation of the foreign firms in that country, as there is little need for foreign firms in the United States, Canada, and the United Kingdom today.

Briefly, the object of this agreement would be assurance to native accountants that their practice territory would not be invaded, and assurance to the country's government that the foreign accountants would help build the native accounting profession needed for rapid industrialization and a modern tax system.

I can see no reason why the government of any developing country would not welcome such an arrangement. Nor can I see any reason why, on the same terms, the several states of the United States would object to the entry of accountants from foreign countries. They would not be practicing here, in the sense of holding themselves out to serve the citizens of the states, but would only conduct engagements originating abroad.

The efforts of American firms to practice in other countries have been greatly handicapped by the restrictions on practice by foreign firms in many state laws. The diversity of state laws and regulations makes it impossible to offer reciprocity on a nationwide basis to foreign accountants.

But on the restricted basis I have suggested, there should be little difficulty in convincing all our states to extend to foreign accountants the same privileges sought by American accountants in other countries. Perhaps this could be accomplished through commercial treaties.

INTERNATIONAL ACCOUNTING FIRMS AND FEASIBILITY

The question arises immediately, however, whether or not it would be economically feasible for international accounting firms to maintain offices in developing countries if their fees were limited to those derived solely from engagements originating outside such countries and involving foreign investment — in other words, if the firms were barred from accepting local engagements.

It might not be feasible if each foreign firm desiring to enter the country had only one large client, or only a few clients, outside the

country who needed service there. But it might be entirely feasible if *all* outside clients of *all* foreign accounting firms could be served by *one* foreign accounting firm established within that country.

This suggests the formation of a multinational accounting firm — similar to the multinational corporations — which could establish offices in all developing countries, building on offices already there, and serve all the clients of all the foreign accounting firms having interests in that country.

The multinational accounting firm (which could be a corporation) would be organized, owned, and controlled by the largest international accounting firms now in existence. It would be staffed with their own personnel. They could rely on it as confidently as on their own offices. It could serve smaller firms with international clients, as well as its owners. It should eliminate overhead expenses now duplicated among many firms. It would have little incentive to attract local business, being strongly oriented toward international business. But its personnel could help educate, train, and organize a native accounting profession.

In the past, international accounting firms have occasionally pooled their resources in establishing foreign offices under combined names, such as Deloitte, Plender, Haskins & Sells, or Price Waterhouse, Peat & Co. (if memory serves me right). Also, firms from two countries have joined in one international firm, such as Cooper & Lybrands. There seems no reason why a larger multinational firm could not be organized if the principal international firms desired it.

Such a firm, operating primarily as a service agency, could still make a profit. But it could also make a substantial contribution to the progress of the world economy and to world prosperity and peace. And it might avoid many headaches now involved in making satisfactory arrangements for accounting service to international clients.

Civilization is approaching a point where private enterprise recognizes some responsibilities to society in addition to the basic responsibility of producing a profit. The activities of business corporations in supporting education, aid to minority groups, and pollution control, for example, are evidence of the trend.

The accounting profession, as represented by the large international firms, has the potential to make a truly significant contribution to the industrialization of the developing countries. But its opportunity to do so may be thwarted if it ignores the territorial imperative.

The Accountants International Study Group—The First Three Years

R. DOUGLAS THOMAS*

In August 1966, while president of the Institute of Chartered Accountants in England and Wales, Sir Henry Benson spoke at the annual conference of the Canadian Institute of Chartered Accountants and proposed that it was time accountants stopped talking about the need for more international cooperation and liaison and started doing something about it. Specifically, he suggested that accounting bodies in Great Britain, the United States, and Canada should get together and form a working group to study common areas of practice which should be more thoroughly investigated and analyzed, and to publish the results of these studies. Two months later he made this proposal to the council of the American institute. Sir Henry Benson is thus the father of the Accountants International Study Group (AISG) and, as one of the leading accountants in Britain, it was not surprising that the initiative for such a group would come from him.

The study group met for the first time in New York in February 1967 and has met twice yearly ever since in a three-country rotation plan. During its first three years, the study group published three studies and, considering that the first year was largely spent in establishing procedures and priorities, effectively it has published studies at a rate of slightly more than one a year.

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The study group's membership consists of representatives from the three British Institutes of Chartered Accountants, the American Institute of Certified Public Accountants, and the Canadian Institute of Chartered Accountants. It was agreed that each group should be entitled to three representatives: the Canadians, for reasons of economy, named two; the American institute, three; and, the English institute, two, with Sir William Slimmings representing both the Irish and Scottish institutes.

The purpose of the study group, as published in the foreword to each study, is: "to institute comparative studies as to accounting thought and practice in participating countries, to make reports from time to time which, subject to the prior approval of the sponsoring institutes, would be issued to members of those institutes."

STUDIES

The studies are, of course, the major aspect of the group's work. The first, *Accounting and Auditing Approaches to Inventories in Three Nations,* was published in January 1968; the second, *The Independent Auditor's Reporting Standards in Three Nations,* in November 1968; and the third, *Using the Work and Report of Another Auditor,* in July 1969.

While each of the studies was prepared with the assistance of the entire study group, the first was primarily the work of the British representatives, the second of the Americans, and the third of the Canadians. Three more studies are in process: "Diverse Activities of Conglomerates" and "Consolidated Financial Statements" which are being prepared by the American representatives, and "Accounting for Corporate Income Tax," by the Canadians. In addition, there are three other studies waiting to be started as soon as each of the present in-process studies is finished: "Profit Forecasts," to be the responsibility of the British representatives, "Fund Statements" by the Canadians, and "Extraordinary and Prior Year Items" by the Americans.

INFORMATION EXCHANGE

In addition to the studies, another feature of study group meetings is the information exchange which began rather informally but has now become an inherent and important part of each meeting. This oral exchange of information, which is followed between meetings by written communication among the representatives of the three countries, covers

almost the entire range of important developments that affect, or are affected by, the accounting profession in each country. At any one meeting the topics discussed could include ethics, public relations, changes in the law, changes in taxation, institute pronouncements, changes in the professional liability situation within any country, changing educational standards, or new policies being studied for the future.

This information exchange, I think, has become extremely valuable for two reasons. First, it is an opportunity to penetrate behind the headlines and to discuss in detail some of the reasons for the changes or prospective developments. In addition, by their very nature, the representatives on the study group and the staff who support them are "plugged in" to institute programs and are in a good position to bring information to the study group's exchange, as well as to take away information which can be used to inform and guide the programs of each of the participating bodies.

WORKING PROCEDURES

Work on a study begins, of course, with the selection of topics for study. This is one of the reasons why people who are familiar with institute programs and who have a wide background in the accounting profession of their own country are essential to the success of the study group. They must know not only what is important now, but what changes of importance are likely. Furthermore, they must be able to assess them in the context of their own country as well as in the wider context of the three countries.

Once the topics have been selected, the drafting responsibilities are delegated to representatives of one of the participating institutes and the study is begun. There are three stages in the production of a study and each stage has in itself two different kinds of work.

The first stage is for the representatives of the responsible country to draft an outline of all of the important points they feel should be covered in the study. This is a matter of organizing the material and of making sure that no important points are overlooked. The second part of stage one is to circulate the draft point outline to the representatives of the other countries for comment and then to draft a combined point outline incorporating the views of the representatives of all three countries. This combined outline is put forward at a meeting for discussion, amendment, and/or approval.

Once the point outline has been approved, representatives in each

country, using the point outline as their guide, draft a national paper outlining the experience and practices in each country on all of the points in the outline. These national papers are sent to the representatives responsible for the study who then put the national papers together into a composite paper. The composite paper is mailed to the study group members in the other countries for comment and, based on those comments, a second draft is then put forward for discussion at a meeting of the study group.

The third production stage is, of course, the completion of a final discussion draft of the study which is usually sent for comment by mail so that a voting draft is ready for the next study group meeting.

If the study group's work is on schedule, there should be at each meeting one study at one of these three separate production stages; that is, there should be a draft point outline on one study ready for discussion; another study should be at the second stage for review by the study group members who will also be amending a composite of the national papers; and a third study should be at the voting-for-publication stage. If this pace could be maintained, we could then expect the publication of two studies a year, with one final study and one new point outline approved at each semiannual meeting. However, experience to date, slight though it is, indicates that it is unlikely that this pace can be maintained; therefore, my expectation, based on present resources and working practices, is that there will probably be three studies published every two years.

THE FUTURE OF THE STUDY GROUP

There are a number of questions about the study group which could certainly be asked. Is the Accountants International Study Group a necessary and successful operation or should it be changed or concluded? What is, or will be, the status of the group's studies? My expectation is that AISG studies will gradually take on the somewhat ephemeral status of opinions of the Accounting Principles Board in the United States, council statements in England, and research recommendations of the Accounting and Auditing Research Committee in Canada. Accountants and other businessmen in each country know what the status of those pronouncements is although no one can define it clearly — it is similar to generally accepted accounting principles.

Who are the best representatives for the study group? The representatives from each of the participating institutes have so far all been partners in international auditing firms. This should cause no surprise

and I suspect that there will continue to be a strong representation of international auditing partners on the study group for two obvious reasons: they have worldwide accounting knowledge and they have access to the accounting problems and their solutions, in the participating countries as well as in other countries in which their firms are represented. Since a majority of the members of the British and Canadian institutes are in government, finance, industry, and education, however, I expect that sometime in the future either the Canadians or the British will appoint a member to the study group from one of the other professional occupations. But make no mistake, this is a very rough league to be in; if each representative and staff member does not come with his homework carefully done, or is not fully *au fait* with international developments, it is far better to stay away! So the people who come not only must be prepared to work hard, they also must have a wide professional background and an aptitude for both research and international accounting.

It has been valuable to discover why some practices differ between countries and to discuss whether or not the practices of one country can be regarded as superior to those of others. There are strongly held differences of opinion about what are best practices and it is useful to consider how, if at all, the accounting profession in a country, or in the North Atlantic triangle, undertakes changes in its practices. While differences in practices are an important part of each study, the *reasons* for the differences are frequently not revealed in the published study although, as I have mentioned, once uncovered in the study group's discussions, they can significantly aid accounting research in each of the participating countries.

I think the Accountants International Study Group is an acorn from which, properly handled, not only can a mighty oak tree grow, but a thoroughly good forest of sound timber. The international study group has the potential to accomplish three things if we allow it to. First of all, it can bring together the best people to discover why there are differences in practices, to try to eliminate those differences and, hopefully, to make our practices more uniform so that, as companies trade internationally, they can do so in the certainty that similar accounting standards are being applied in each country, that words used to describe similar transactions and results are used in the same way and with the same meaning at least among three countries supposedly speaking the same language.

Second, I think that we can stop reinventing the wheel. It is a terrible waste of our most precious resource — the time of those best able to devote themselves to research — to study matters that have been, or are being, studied in one of the other countries; and what is equally bad, or worse, to run the danger of coming to unnecessarily different conclusions on the same topic. I am not by any means suggesting that we should all be following a common manual of accounts, but I do think there are a great many differences where everyone would benefit from studying thoroughly the reasons for what we are doing so that we can do better that which should be done or stop doing that which no longer makes sense.

Third, I think the study group can be the nucleus of truly international studies. While the study group was started by countries whose people speak the same language and have a common background, it is a moot point whether or not it should remain a three-nation group. This point has been discussed at several study group meetings. One of the difficulties, of course, is which countries should be asked to join. While the Canadians were glad to have been invited, the British and Americans could have proceeded by themselves (although I think the Canadians have provided a useful bridge between them). But where do you go from here? If you think in terms of common languages and common backgrounds of accounting, you would probably think in terms of the Dutch, the Australians, the New Zealanders, and the South Africans. But with these additions, time and money costs really start to become extreme, and I suspect there would be diminution in output without any necessary improvement in the quality of the product.

If the studies are to be given greater importance, should they continue to summarize current practices in the three countries and offer conclusions rather than recommendations? The Canadians have been most insistent that the results of studies should be called conclusions and not recommendations because of our concern about developing two sets of recommendations — one nationally and one internationally — with the inevitable confusion that would result. But is it going to continue to be enough to report on current practices and suggest some fairly bland conclusions? If the AISG became the means of dividing new areas to be studied, or restudied, among the participating nations, this would lead logically to a serious consideration of whether the status of the studies should not begin to assume a supranational authority, or at least a supranational recognition. If Country I studies Topic A and

Country II studies Topic B, why should it be necessary for each country to then issue its own statement coming to the same conclusions? Why not, having done the job, publish the results for the use of the accounting profession in the countries which supported it? If that were to happen, then why not delegate to an international research team, such as the study group, a good deal of the manpower and money resources being devoted currently within each country to its own national accounting research?

I should stress that the opinions I have expressed are mine alone and in no way can be considered to be the views or policies of the Canadian institute. While I have mentioned some of my biases, I should caution you that this view of the international study group is very much like the book which I understand was published several years ago in this country entitled *An Unbiased Account of the Civil War — From a Southern Point of View.*

Academic Research in International Accounting

GERHARD G. MUELLER*

It is fashionable these days to categorize accounting research according to the types of data and types of research methodology used in projects undertaken. Hence, we presumably have theoretical research and empirical research, behavioral research and information systems research, historical research and international research, laboratory research and survey research, quantitative model building and computer simulations, and hosts of still other types of research.

These categorizations often lead to confusion. For the purpose at hand, I would like to take my cue from the more traditional approach characteristic of the so-called hard sciences and classify accounting research simply as either applied research or theoretical research. Accountants in academe are engaged in research endeavors of both the applied and theoretical varieties. One should quickly add, however, that most of the current accounting literature does not deal with research at all — it contains largely recent opinions of individuals with expertise in one or several specialty areas of the discipline. Careful expressions of opinion serve a highly useful function, but they should not be mistaken for research nor used as research surrogates.

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APPLIED RESEARCH

In applied research, it seems to me, we are concerned with the application of existing knowledge and generalized propositions to accounting problems of the day. The problems tackled by applied research are real-world problems discernible in a given environment. Many of the tools used in applied research not only come from existing knowledge about accounting but also are reinforced by reliance on supportive areas such as quantitative methods and the behavioral sciences. Moreover, established propositions from accounting-related disciplines, such as economics, political science, law, and systems theory, should be and are freely used in applied accounting research.

The accounting research effort of the American Institute of Certified Public Accountants is probably most representative of massive applied research. The prime object of AICPA accounting research, as I understand it, is to analyze in depth accounting problem areas facing the profession with a view toward at least partial resolution through new opinions from the Accounting Principles Board. The Financial Executives Institute (FEI) and the National Association of Accountants (NAA) are also conducting applied accounting research on the broad scale. The FEI study on the possibilities of product line reporting immediately comes to mind as a substantial piece of work in this area. NAA research studies presently number forty-five and will surely continue to be published. They are a well-established applied research medium.

While it is less publicized, it seems apparent that corporate financial management also conducts large-scale applied accounting research when choosing accounting principles for various financial accountings and for purposes of public financial reporting. Last but not least, there are occasional applied research projects undertaken and reported upon by academic researchers. These might involve endeavors such as adjusting an existing set of financial statements for price-level changes or applying certain tax allocation techniques to accounts and financial statements.

In the international accounting arena, the work of the International Accountants Study Group (discussed elsewhere in this issue) fits the description of applied research. Also, it is my view that most academic research dealing with international aspects of accounting has so far been of the applied variety. This is so because most of such work has been descriptive or comparative. There has been some attempt, on behalf of international accounting research, to arrive at conceptual classification schemes and to introduce international variables into normative

thinking.[1] But in my judgment these efforts have not yet gotten very far. One may conclude, therefore, that the various descriptions and comparative data collected to this point have been applied to international problems by drawing upon a body of knowledge not necessarily built with international considerations in mind. In other words, we have applied the constructs and propositions used in all of accounting or in all business studies to problems having international dimensions. I am not prepared to argue whether this is good or bad. Also, I realize that this is the general state of affairs with international business studies as a whole. It seems fruitful, nonetheless, to underscore at the outset that we do not yet have any general propositions about the international elements of accounting.

CURRENT STATUS OF APPLIED RESEARCH

There should not be any alarm over the fact that nearly all international accounting research to date has been of the applied variety. All research effort, it seems to me, no matter how abstract it may eventually become, needs to start with descriptive data and comparative studies. Thus, the development we have so far seen in international accounting research appears worthwhile and a necessary underpinning for later conceptual work.

Still we have a problem of major proportions. This problem, concisely stated, is that the results of the descriptive and comparative studies available at present have been applied rather indiscriminately to all manner of practical international accounting problems without the benefit of intervening conceptual work. Again, this is not something with which only the international aspect of the discipline is afflicted; it is a characteristic of much of present applied accounting research. Nonetheless, the problem is especially acute in the international area because (1) conventional wisdom is less well-established in relation to international problems than to the discipline as a whole, and (2) practical accounting problems of an international nature are increasing in size and urgency and simply demand solutions even if derived through ad hoc processes.

Elsewhere I have presented a cursory list of international accounting problems waiting for workable solutions. These problems all require applied research and include topics such as financial reporting and disclosure to worldwide audiences, conflicting legal requirements faced by

[1] See, for example, I. L. Fantl, ed., *International Accounting Education Newsletter* (January 1970), pp. 1–2.

multinational companies, reporting the results of foreign operations, and particularly the problem of translation of foreign currencies in accounts, plus the many special problems of direct and indirect multinational investments and their respective measurements.[2] Then there are several problems of the type discussed elsewhere in this issue. For instance, the paper on financial reporting in Finland stresses the issue of the meaning and use of consolidated financial statements. The growth of capital markets around the world and offshore financing such as that facilitated by the Eurodollar Market raise questions concerning the international practice of independent accountants and their relationships with local and third-country governments and professional organizations.

Ever present is the problem of economic development. Opinion seems fairly well-established that accounting and accounting data play a role of some significance in economic development processes, but exactly what this role is, or for that matter what it should be, is still largely open to guess. For instance, we know relatively little about the relationship between accounting development and economic development, and we have yet to find whether or not the system of accounting education and professional organization observable in the industrialized countries can be adapted somehow to the needs of the developing countries.

In summary, there is seemingly no end to the practical accounting problems with international dimensions that have yet to be tackled. These problems are pressing hard for solutions. At the same time, international accounting research is still in its infancy. It has barely surpassed the data collection and descriptive stage. If it is forced to turn into the applied avenue of research without adequate prior theoretical research, we might shortly find in the international area some of the same contradictions and inconsistencies which still characterize generally accepted accounting principles in the United States.

THEORETICAL RESEARCH

Two steps appear essential to any process of theoretical research. The initial step is to construct models or abstractions by applying logical reasoning and analytic tools to observations on a given environment. The economic theory of perfect competition comes to mind as such a model. Others are the Newtonian construct of gravity or the Copernican concept of our planetary system. In all of these instances the investigators scrutinized and observed a given environment and then constructed

[2] See Gerhard G. Mueller, "New Frontier in Accounting Research: International Problems," *Cost and Management* (May–June 1969), pp. 9–12.

certain ideas about it. The resulting models then attempted to explain how costs and prices might behave under certain assumptions, how objects might fall according to a determinable path, or how planets and other heavenly bodies are arranged and interrelate. In other words, these models are explanations of certain natural laws observable in a given setting.

The second step in theoretical research, it seems to me, is to take the models or abstractions evolved and test them rigorously against happenings in the real world. From the results of such tests the models are then revised until they are accurate simulators of the real world. Thereafter, these models can be applied for such purposes as prediction and decision making.

Returning to economics again, this process might involve the testing of the perfect competition model against real-world conditions. Upon finding that the model is not a very good simulator, one has two choices — one can either use the admittedly imperfect model and work with it as best one can, or one can seek to revise the abstraction until it provides a better fit with real-world conditions. As it were, such a process produced models of imperfect competition in economics. Thereafter we had something that was of greater use in actual applications. For instance, I understand that the U.S. Department of Justice relied a good deal upon constructs of oligopoly and oligopolistic reaction patterns when it was forced to deal with issues of corporate conglomeration. Available theoretical works helped in classifying problems of market domination, when and where the public interest was affected by conglomerate activities, and so forth.

Many other theoretical research efforts, especially in the natural and biological sciences, could be described similarly. Theoretical research seems to bear the most fruit when it does produce models that simulate relatively well given actual situations. Once such models are achieved we can use them for the two things that we are all interested in doing: (1) making logical decisions, and (2) predicting environmental conditions or consequences. Unless it helps us to make better decisions, usually by being able to make better predictions, we might just as well forget theoretical efforts. This holds true in accounting just as it does elsewhere.

INTERNATIONAL DIMENSIONS OF ACCOUNTING

We observed earlier that one might be optimistic about the applied area of research when it comes to international considerations of ac-

counting. To be sure, there are many unsettled issues yet to attempt, but I think we have begun to demonstrate that we have some capability in this respect. At the same time I am not at all sure that similar capability exists with regard to the theoretical area of international accounting relationships.

Some so-called theoretical research, I would say, misses the point completely. It proceeds without adequate prior formulations of models and often hides behind a smokescreen of elaborate methodologies — many of which employ complicated yet mostly irrelevant quantitative techniques. An example of this is the notion which is so much in vogue today, namely the study of asserted effects between reported annual accounting income and public securities prices. From the international point of view, the proposition basically postulates that securities prices of companies engaged in international business are more predictable, fluctuate less, and are relatively higher than the securities prices for companies not so engaged. Stated differently, it is presupposed that a relationship exists between reported accounting income and stock market prices and that percentages of a company's international business content affect this relationship.

In my view, investigations along these lines are not theoretical research. Whatever the fit of any statistical series evolved, I would hold that no investment model exists which portrays a direct relationship between securities prices and reported accounting income. Moreover, I am at a loss to understand the logic underlying this type of endeavor. For one thing, only a very small percentage of all the holders of a given security are in the market at a given point in time. Thus, the small number of holders or potential holders who make up the market on any one day cannot possibly reflect the aggregate effects of a particular accounting report.[3] Aside from this, it would appear that a host of behavioral forces is operating continuously in securities markets so as to preclude effectively the isolation of any one particular variable. Especially is this so in the case of something as removed as the international business component of certain companies' total business activities. To reiterate, even if a given statistical correlation turns out nearly perfect it cannot, in my view, explain anything about the researched securities prices nor underlying reported accounting income.

Other examples readily come to mind of pseudotheoretical research

[3] Acknowledgment is due Professor R. J. Chambers for some observations on this point.

imputed to international accounting dimensions. Take the attempts to adjust rates of change of foreign exchange rates by price indices of one type or another to produce more "realistic" translations of foreign monetary units in accounts. This, as far as I am concerned, is a complete abomination. So long as a given accounting system is transaction-based, the translation model should strive to produce foreign currency cash equivalents of each individual transaction amount. It seems bad enough to use the practical expedient of average or year-end rates to estimate the needed cash equivalents. Then to muddle the translator rates with a price index adjustment seems as effective as applying hair tonic to cure a broken bone. I cannot envisage any model or abstraction that would admit a price level adjustment submerged into the currency translation of an accounting transaction.

There exists, however, some theoretical research in international dimensions of accounting which I find valid and which has opened avenues that seem worthy of further pursuit. A project which comes to mind immediately is the work by Davidson and Kohlmeier on the effects of certain foreign accounting principles upon sets of financial statements. This research was reported in the *Journal of Accounting Research*.[4] In essence, it computerized the transactions of several smaller U.S. companies over a period of years and then applied several foreign accounting principles to these transactions. Basically different inventory pricing and depreciation methods were used. The conclusion of this research is that financial statements produced from the application of different accounting principles are different from one another. In turn, these findings should help with predictions about buying or selling foreign affiliates or with financial statement effects of multiple reporting requirements faced by a single company. I think the proposition can be sustained that the use of different measurement bases for certain accounting quantities will produce different effects on different financial statements. Thus, Davidson and Kohlmeier had a reasonable abstraction from which to work and therefore were able to produce defensible results.

Another intriguing bit of theoretical research was accomplished recently by Seidler.[5] He observed that in the real world, accountants are

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[4] Sidney Davidson and John M. Kohlmeier, "A Measure of the Impact of Some Foreign Accounting Principles," *Journal of Accounting Research* (Autumn 1966), pp. 183–212.

[5] Lee J. Seidler, "A Comparison of the Economic and Social Status of the Accountancy Profession in Great Britain and the United States of America," *Accountants' Magazine* (September 1969), pp. 489–500.

becoming more public interest conscious, are interested in becoming more professional, and in general want to elevate the social acceptability of their work and other activities. These observations seem valid.

From this premise Seidler constructed a simple model which relates the increasing aspirations of professional accountants to the quality of new entrants to the profession. So, it was reasoned that if higher quality of entry is desired, one ought to be working for a higher social status for the profession in its social environment. On this basis Seidler studied comparatively the social status of the accounting professions in the United Kingdom and the United States. His general conclusion is that the profession in the United Kingdom enjoys comparatively a higher social status than the profession in the United States.

One could "nit-pick" Seidler's methodology. For example, and among other things, he asked eligible females whether they would prefer to marry a physician, an attorney, or a professional accountant. He received completely different answers in the two countries surveyed. Also, Seidler's sample may not have been demographically valid from a statistical point of view. Nonetheless, it seems that his project did open a new avenue for viewing an international accounting problem.

The foregoing examples illustrate the range of work which one could consider the beginnings of theoretical research on the international dimensions of accounting. Some of it seems good and some not so good. Just because something is called theoretical research does not necessarily make its product intellectually valid, socially useful, or ready for application. A hefty amount of caution still appears prudent when theoretical research is either planned or evaluated.

Let me now suggest a few areas in which theoretical research of an international nature might well be contemplated. The examples to be discussed each suggest a type of inquiry and are, therefore, suggestive of more than single projects.

THE ACCOUNTING FUNCTION IN SOCIETY

A question of some importance is how the accounting function ought to be organized in a given society. One might observe that organized society appears to have a high demand for the products of accounting. Evidence of this demand is that there are approximately 125,000 CPAs working in the United States and maybe 45,000 chartered accountants in the United Kingdom. Also, in the United States we have probably a quarter of a million industrial accountants at work.

Furthermore, this type of demand is not limited to market oriented systems. Accountants, we are told, are playing a significant role in centrally planned economies like that of the Soviet Union. The accounting function obviously is organized differently in the Soviet Union since there it is heavily oriented to cost and management problems. Nevertheless, strong demands for accounting services appear to exist generally.

If this premise is granted, a perfectly valid theoretical question can be asked concerning how the accounting function ought to be organized. As technology and general information availability increase, the question becomes even more significant.[6] Could we construct a model that would lead to some answers?

Existing approaches vary widely. In the United States the chief selectors of accounting principles and the chief preparators of financial statements are corporate managements. Public accountants set limits within which management may make its choices and public accountants also audit prepared financial statements and form opinions about their conformity with an agreed-upon set of generally accepted accounting principles. But this still leaves the major innovative effort for accounting development in the hands of corporate managements.

By contrast, study of the German, French, or Mexican situations will reveal that accounting principles are largely selected through methods of law. In Mexico, for instance, there is a strong congruence between tax accounting principles and financial accounting principles. If a change in financial reporting is desired, one must first of all change underlying tax laws. New approaches to tax accounting yield immediate counterpart effects on financial accounting.

Still another approach is discernible in the Netherlands. Accounting there is strongly anchored in business economics so that neither the accountant nor the tax collector is a dominant force in accounting development. Dutch businessmen and business economists represent the prime influences upon the evolution of Dutch accounting principles.

Is any one of these approaches better than any other? Which one makes the most sense from a cost/benefit point of view? Even more important, which one can be recommended to those interested in establishing a new accounting function, let us say, in a developing economy? None of these questions can be answered at present. Scott did his doctoral dissertation in essence on the relationship between accounting

[6] Professor Norton Bedford makes this point very forcefully.

development and economic development.[7] Linowes, among others, has recognized the growing socioeconomic importance of the discipline.[8] Also, institutional efforts are underway aimed at accelerating accounting development in developing nations.[9]

Wilkinson has recently made a proposal for an international companies act which might prepackage some accounting principles for the developing countries.[10] Former SEC Commissioner Wheat wrote that SEC-type legislation has brought about social benefits, that this approach to public financial disclosure has brought business and government closer together, and that such legislation appears to be an important element in the organization of an accounting function in a society.[11] It would appear that there is ample scope for theoretical effort in this area.

GOALS PERCEIVED FOR THE ACCOUNTING PROCESS

Still relying on the earlier observation that demonstrable demand exists for accounting services in organized society, one ought to ask the theoretical question as to what types of perceived goals exist for the accounting process in a given setting. Put differently, the question concerns what objectives given accounting processes seek to accomplish.

In the United States we seem fairly imbued with the idea that almost all financial accounting endeavor serves investors and creditors. This may be a perceived goal, even though I have personal doubts about it, as expressed in earlier parts of this paper. Other perceived goals exist in other environments. For instance, the Nordic countries (see the paper by Jägerhorn in this issue) seem to have adopted more of a macrooriented approach to financial accounting. Some of their objectives include the smoothing of the impact of business cycles on the enterprise, adequate rates of capital investment and growth, and, in general, the achievement of predetermined national economic targets. These goals are reflected in their accounting procedures and processes.

[7] George M. Scott, "Private Enterprise Accounting in Developing Nations: Economic Evaluation Accounting" (D.B.A. diss., University of Washington, 1968).
[8] David F. Linowes, "The Need for Accounting in Developing Social Systems," *Journal of Accountancy* (March 1970), pp. 62–65.
[9] "International Accounting Aid," *Journal of Accountancy* (October 1966), pp. 34–35.
[10] Theodore L. Wilkinson, "International Accounting — Designing an International Companies Act," *Price Waterhouse Review* (Winter 1969), pp. 2–10.
[11] Francis M. Wheat, "More in Common than in Conflict," *Arthur Young Journal* (Winter–Spring 1970), pp. 33–36.

The socialist countries have other goals for their accounting functions. Among such goals are managerial planning and control for some very massive centrally directed business entities. Also included are costing and pricing schemes implemented on "shadow" bases.

Developing countries surely assign economic development goals to their accounting processes. Here, accounting information might have a very close relationship to the compilation of national income statistics and possibly the production of tax and other public revenues. The notion of perceived goals in the various accounting patterns existing around the globe would certainly seem to lend itself to successful theoretical research.[12]

DEVELOPMENT OF GENERALLY ACCEPTED FINANCIAL ACCOUNTING PRINCIPLES

If a society wants to report financial information, if this information is to be audited by independent professionals, if it is to be used by government officials to regulate and set economic policy, or if it is to be used to support a widespread securities market, it follows that society needs to develop and keep current a set of generally accepted financial accounting principles. By what process or processes should these principles be developed? Can we build a model or an abstraction that would explain what the key variables in the process are and how they interrelate?

No two countries appear to have the same machinery by which they develop their financial accounting standards and procedures. In the United States, a professional institute, the American Institute of Certified Public Accountants, has sought this role and is now exercising it with implied consent from all concerned. Most British Commonwealth countries use companies legislation as the threshhold for recommending and then setting various financial accounting rules. Councils comprised of businessmen, government officials, lawyers, and professional accountants seem to be discharging this function in the Netherlands. In France, Germany, and Japan, the influence from legal forces is rather dominant. Tax accounting influences might be strongest in some of the developing countries.

To my knowledge, no theoretical model exists which might have captured the essence of this process. Yet the need for such a model and for attendant theoretical research appears rather urgent.

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[12] A beginning in this direction was achieved by Myron J. Gordon in "Postulates, Principles and Research in Accounting," *Accounting Review* (April 1964), pp. 251–63.

Ongoing efforts are clearly led by Moonitz, who has a long-standing interest in this subject.[13] In addition to his earlier work in the area, he is currently preparing a paper for the inaugural meeting of the British Accounting and Finance Association (BAFA) to be held in Edinburgh this fall. A preliminary conclusion of his paper is that in the United States we have used auditing standards with good results and that there seems to be some historical precedents which suggest that an approach via broadly based standards might work better than the piecemeal, brush fire approach that is currently characteristic of the Accounting Principles Board. The Moonitz paper also makes the point that most innovative changes in accounting have come from nonaccountants — often occasioned by major business, legal, or social events such as depressions, embezzlements, mergers as a way of business growth, court cases on professional liabilities to third parties, and so forth.

Others working in this area include Tyra, who in her doctoral dissertation studied the relationship between financial disclosure patterns and the development of the securities markets in several European countries.[14] Her key conclusion is that major advances in accounting principles have not come from the respective accounting professions but rather from changes in accounting-related legislation such as is contained in successive national companies acts.

Zeff (Tulane University) is likewise concerned with the problem of the development of financial accounting principles. He has in process a study of major proportions which traces in some detail the evolution and forging of accounting principles in Australia, Canada, Mexico, the United Kingdom, and the United States. The synthesis and analysis of Zeff's study should become a milestone in the study of the national and international development of financial accounting principles.

TYPES OF OPERATIONAL CONTROL

Shifting to the managerial area for our next illustration, we might observe that planning and control functions must be performed in any complex organization. We might also observe that operational control

[13] See for example, Maurice Moonitz, "Why Is It So Difficult to Agree upon a Set of Accounting Principles?" *Betriebswirtschaftliche Forschung in Internationaler Sicht* (1969), pp. 295–311.

[14] Anita Tyra, "Comparative Financial Disclosure Patterns" (D.B.A. diss., University of Washington, 1968).

of business activities depends upon accounting information in various degrees. Generally, the reliance on accounting information for control purposes appears to increase as (1) a complex organization grows more decentralized, (2) its range of products and services becomes more diverse and its geographic activity centers become more widespread, and (3) its managers, employees, and customers represent greater ranges of social and economic backgrounds, especially where different countries are concerned.

One theoretical question to be asked in this connection is what type of accounting information systems ought to be used to manage the multinational corporation? Is there a difference in the management information needs of a large domestic decentralized company and a large multinational company? More mundanely, is accounting control by a central office in New York over a subsidiary in Seattle different from the accounting control needed between, let us say, a central office in Cincinnati and subsidiaries in Formosa and South Africa?

Initial opinion (not research) suggests that the accounting control mechanisms in multinational companies should be different from those used purely domestically. Hawkins makes this point[15] as do several others in the projects and references cited by Hofstede.[16] If we could initiate theoretical research in this area we might be able to find reliable answers eventually. The rather spectacular and continuing growth of multinational enterprise suggests that urgency is in order as far as this particular problem is concerned.

NATURE OF ENTITIES

Existing theoretical accounting research leaves little doubt, in my view, that the question of the nature of an entity to be accounted for is a question of theoretical substance. Even though a body of literature exists in this area it cannot be regarded as exhaustive. This is especially the case since organizations and organizational structures seem to undergo change at accelerating rates.

The international dimension of this question is simply that the traditional U.S.-based notions of an accounting entity may not be applicable in other countries and may be useless or even misleading in the cases of multinational companies of the host-company-oriented

[15] David F. Hawkins, "Controlling Foreign Operations," *Financial Executive* (February 1965), pp. 25–26.

[16] Geert H. Hofstede, *The Game of Budget Control* (Assen, Netherlands: Van Gorcum & Co., 1967).

type (polycentric) or globally-oriented type (geocentric).[17] Let me cite an example. I am aware of a case where a Japanese company approached a U.S. company with a proposition for a business combination. Investigating the situation, accountants for the U.S. company found that there was virtually no owners' equity outstanding for the Japanese company since nearly all of its financing was in the form of ninety-day demand notes issued by several banks. These notes had been refunded periodically ever since World War II. Their short-run maturities were primarily a consequence of protection of applicable interest rates. This is to say that interest rates could be varied every ninety days according to then current economic conditions, which in turn eliminated the risk of major losses from interest rate fluctuations as far as the banks were concerned. Now, did the banks control this Japanese company or did the shareholders on the basis of a very minor investment? Similar puzzles exist with respect to international petroleum consortiums, German intercompany groups known as "Organschaften," or the big European enterprises in which central governments own majorities of the outstanding shares.

These observations on the real world suggest a need for theoretical research with an international perspective on the nature of entities to be accounted for. It does not follow, as is assumed so often, that existing U.S. work on accounting entities can be applied indiscriminately to the multinational company case.

ACCOUNTING MEASUREMENT BASES

By choice we again have an illustration not uniquely international in its dimensions. A veritable mountain of literature exists on the accounting measurements topic. It starts with efforts in Germany during the World War I period, progresses to Sweeney's work during the 1930s, and culminates in recent pronouncements such as the AAA *Statement of Basic Accounting Theory* and *Statement No. 3* of the Accounting Principles Board. The flow of literature in this area, especially of the theoretical type, has expanded remarkably in the last decade. Apparently, we agree conceptually that the use of market or other current value bases would be the most desirable form of accounting information measurements, but we have not yet succeeded in either

[17] As defined by Howard V. Perlmutter, "The Tortuous Evolution of the Multinational Corporation," *Columbia Journal of World Business* (January–February 1969), pp. 9–18.

applying existing models beyond experimental situations or changing these models so that they can be applied more readily.

Since some applications of other than transaction-cost-based measurements are in existence in a number of countries around the world, notably in the Netherlands, it would appear that the feasibility of using market or other current value based accounting measurements could indeed be a rewarding area of study for those of us with a predisposition toward things international. We could study not only the direct application of our theoretical constructs, but also the differences produced by alternate approaches, sensitivity to price changes and other economic phenomena, effects on various management and financial decisions, and so forth. The possibilities appear to be large in number and interesting as well as challenging.

CONCLUDING REMARKS

The main purpose of this paper was to pose a challenge. By defining applied and theoretical research in accounting and by relating both to the international dimensions of the discipline, we set the stage for proposing a number of topics suitable for theoretical inquiry. On the one hand, it might seem discouraging that relatively little theoretical research of an international accounting nature has been accomplished so far. On the other, it surely means that some real challenges lie ahead.

Over the centuries accounting has responded dynamically to new forms of business and to new organizational structures. It has adapted itself to new environments and to new social and political values. There is every reason to believe that accounting will again meet the demands coming from the new international dimensions of the discipline. The very fact of the successive seminars in international accounting at the University of Illinois is an elegant witness to this note of optimism.

Emerging Nations and Emerging Institutions

RICHARD R. BOND*

Emerging nations, for this discussion, may be defined as those which largely until World War II were relatively backward, usually exploited by a colonial power, and which have recently either achieved independence or, because of the new independence of nearby states, developed a new nationalism. Emerging institutions are also a post-World War II phenomenon. They are largely former teacher colleges which, in the population bulge in higher education, have expanded not only in size but also in scope and now are moving rapidly into programs formerly reserved to the major universities.

My observations about emerging nations are based upon three years of involvement in the educational system of Liberia and in study-visits to Ghana, Nigeria, Ivory Coast, and Sierra Leone. None of these countries had developed, as of five years ago, a strictly indigenous model for education at any level. Rather, the system from the primary grades through graduate education, if it went that far, was modeled after the country with which the developing nation had the closest ties — Ghana, Nigeria, and Sierra Leone with Britain; Ivory Coast with France; and Liberia with the United States. All but Liberia were former colonies, each having achieved independence since Ghana started the avalanche in 1957. Each had been governed and economically controlled by Europeans, with an infrastructure, including schools, established by and for the convenience of the Europeans.

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The early purpose of the educational system was to train subordinates, either in business or in government. Only enough primary and secondary schools were developed to serve this purpose, and these were modeled after the parental system. Teacher institutes were almost the sole attempt at higher education until well after World War II, with some fortunate promising students being educated in the universities of the parent country or, less frequently, in other western countries, including the United States. The development of indigenous universities in these countries began with the University of Ibadan in the late forties and, as did independence, spread as a rash — Fourah Bay in Sierra Leone, the University of Ghana, the technical institute at Kumasi, the teachers college at Cape Coast in Ghana, the University of Adidjan in Ivory Coast, and in Nigeria, besides Ibadan, largely within the last decade and a half, universities at Ife, Lagos, Enugu, and Zaria, along with specialized teacher and other institutes. Each of these, with one exception which I will mention later, was patterned after parent country education.

In Liberia, on the other hand, an independent country since 1847, neither the evils nor the blessings of colonialism prevailed. Founded by freed slaves from the United States, a university — in name only — was established more than a century ago. Its products were few in number and largely went into subordinate government positions and teaching. Higher government jobs were occupied by Americo-Liberians — descendants of the exogenous settlers of the country — many of whom had been sent back to the United States for training. Until World War II, this training was almost exclusively at southern Negro colleges. Their experiences in the United States plus the heavy missionary input into the primary and secondary schools — until two decades ago the major input — assured a model basically American but far from current even then. The two higher education institutions as well as the primary and secondary schools suffered this defect.

The coming of independence to the African nations — which had its latent impact upon the two independent states, Liberia and Ethiopia — made them truly "emerging nations," their own sensibilities causing the evolution of that term from "underdeveloped countries" through "developing countries" to "emerging nations." No longer were they inhibited in their aspirations. But (1) their models remained the same — the developed Western nations, and (2) the general level of performance, largely because of lack of experience, dropped unless tided over by a deliberate governmental policy of retaining experienced Europeans as ad-

visers or operational personnel until indigenous personnel could be trained. The dramatic and insulting withdrawal of France from Guinea and Belgium from the Congo left those countries in a state of collapse — one might call it post-rape trauma — from which they have not yet recovered.

The aspirations of these countries included: first, rapid industrialization; second, universal primary education; and third, a university. There is some incompatibility of the three. Industrialization has evolved in the West within a historical ethos which included a "dirty hand syndrome" and intense personal drive, a simultaneous measured development of universality of primary education, and a richness of natural resources. Universal education has evolved as the nation could afford it. Universities have developed in response to needs — the early ones to train the professions and, in this country, the expanding land grant concept (within which I would include for our discussion the teachers' colleges) to meet local and national needs as the nation could afford them. That a similar land grant concept was slow in developing in Western Europe has had a marked impact upon the former colonies of those countries. For these three aspirations of the emerging countries — industrialization, universal primary education, and universities — to develop simultaneously and rapidly has been a financial and physical impossibility. The problems have been compounded by an intense and understandable new national pride and a desire for Africanization — the filling of positions of responsibility with nationals rather than foreigners.

What is the solution and what is our role in it? In the first place, it is in our own interest that these countries develop their human and natural resources. Some of their basic national problems are international problems: the wise use of natural resources, the population problem, the development and distribution of an adequate food supply, health problems, as well as normal human aspirations. The lack of solution to these problems will impinge upon our own lives in one way or another, potentially seriously. I believe that neoisolationism and our reduction of foreign aid are incredibly shortsighted. We as individuals and as a nation have a strong stake in these emerging nations.

Some of us have had and will have a hand in their development, some on site and virtually all of us vicariously through the education of foreign students who come to us for training. The encouragement of a strong work ethos can be one of our first and major contributions.

Second, these countries must establish some realistic internal priorities in their resource allocations. As previously mentioned, our own development was an evolutionary one, with successive steps taken as we could afford them and as our national wisdom dictated them. In an emerging nation, on the other hand, to use an example from education, the goal of universal primary education, though politically attractive, is realistically impossible. Natural impulses to the contrary, financial realism compels me to advocate the delay of the goal of universal primary education for perhaps a quarter century hence, not immediately. The lure of extended university expansion should also be resisted. Instead of a massive infusion of funds into primary education and higher education, greater emphasis should be upon secondary education. It is only secondary education which has immediate impact in three directions: (1) through the training of teachers who can teach at the primary level (as their number increases, primary education can be expanded), (2) the infusion of secondary graduates into higher education for training in competencies for which post-secondary education is necessary, and (3) the infusion of secondary graduates directly into the economy at levels for which secondary specific education is sufficient (for example, accounting).

Third, goals and procedures should be internalized. Most of the emerging nations have had imposed upon them what has worked in other nations. Their leaders have been trained in foreign countries. Their advisors have been foreigners who have tried to impose upon them the models they have known. Missionaries, both religious and secular, have urged them to start from a base and move to goals foreign to them. Higher education in Nigeria provides a spectacular example. One of the most promising universities in that country was the University of Nigeria, in which Michigan State University played a crucial and significant role. All the other universities are in the British mold. Excellent classical universities, they trained scholars but addressed themselves only in a limited measure to the immediate needs of the country. Their faculty was composed of foreign nationals or Nigerians trained in the same universities as those foreign nationals or, often, ironically, third-country nationals who had been trained in former colonial universities, virtually two generations removed from even current developments in European education. The land grant concept, that is, the role of the university in national development, was introduced at the University of Nigeria. A large reservoir of native faculty, trained in

countries other than Britain, but unemployable at Ibadan, and of high school graduates not meeting Ibadan's rigid admission requirements made a truly Nigerian university possible. Less emphasis upon such subjects as British constitutional law and more upon immediately relevant subjects designed by Nigerians for Nigerians made this university a bright model for all of Africa until the tragic Biafran war snuffed it out. Fortunately, similar efforts in other institutions are not unknown. The development of agricultural programs, teacher education programs, and business programs at other universities with foreign assistance are examples. Lest I be perceived as being too chauvinistic, Americans are often as guilty as Europeans in molding foreign universities to their experiences. To be successful, each university must be responsive to the needs of the country, and its goals and processes must be set by the country and its own citizens. Our help, whether here or there, must be within that context. We must encourage the foreign students in our own universities to think in that context and constantly remind them not to transpose blindly what we teach them to their own homeland. The result, hopefully, will be universities different from any others, but each in tune with the country it serves.

Emerging institutions provide an interesting parallel.[1] A large number of institutions can be loosely grouped in this category. The American Association of State Colleges and Universities, the companion organization to the National Association of State Universities and Land Grant Colleges, has 254 institutional members, with a composite student enrollment of 1.6 million — one of five of all college students. I would group the institutions into three categories. While virtually all of them are former teachers' colleges, a significant number of them are still, for all practical purposes, single-purpose institutions, a majority have become liberal arts institutions, *still* with a heavy emphasis upon the preparation of teachers, and perhaps 10 percent are truly emerging universities, with masters and doctoral programs in the liberal arts and education, and expanding professional schools in business, social work, the arts, industrial technology, and other fields. In the Midwest, such institutions as Bowling Green, Kent State, Miami, Eastern Michigan, Western Michigan, Ball State, Indiana State, Northern Illinois, and Illinois State Universities may be included.

[1] Paul Woodring, *Higher Learning in America: A Reassessment* (New York: McGraw-Hill, 1968) and E. Alden Dunham, *Colleges of the Forgotten Americans* (New York: McGraw-Hill, 1969).

During the decade after World War II, these institutions began to grow, the pace accelerating in the late fifties and in the sixties. Superimposed upon the faculty already there was an increasing number of faculty members trained in the liberal arts. Amidst many an internal storm, the purposes — and usually the names — of these institutions changed. With legislative approval, horizons expanded suddenly. Suddenly power was in the hands of the newcomers, the upstarts. Independence, as in emerging nations, had arrived!

There were two major consequences, closely parallel to the consequences of independence in emerging nations. First, the sudden "the sky is the limit" feeling became apparent. The institutions expanded into all sorts of areas previously denied them — doctoral education, business, the fine arts, and so forth. Often this expansion was upon an inadequate resource base. In several states, funding was based upon formulas which took inadequate consideration of the extra costs of program development. Development occurred, then, "out of the hides" of students and faculty in existing programs. Further, development occurred across the board, with very inadequate attention to priorities. Like the emerging nations, instant success was the goal. The second major similarity with the emerging nations is that the models for these institutions have been, if you please, foreign. The new members of the faculty, like missionaries and foreign aid personnel, have brought in to these institutions the models of their own graduate experiences and have attempted to replicate them, in spite of the fact that the students and the public are expressing extreme dissatisfaction with those models.

The same three caveats which were applied above to emerging nations would seem to be equally applicable to these emerging institutions.

First, it is to our collective good to see these institutions develop. Existing institutions are insufficient to deal with either the press or the needs of the students yet to come to them. In fact, it is to our collective interest to encourage the establishment of additional ones, lest the ones we have grow to unmanageable proportions, if they have not already done so. Further, not so encrusted with curricular detritus, they have at least the potential for the innovation so desperately needed in higher education.

Second, we should insist, whether through internal or external pressure, that they develop internal priorities and that these internal priorities be coordinated into a statewide scheme. The development of state coordinating boards or boards of control is a public response to this

need. This caveat should also include the developed institutions. Some new programs should be denied the major state universities and should be limited to these new institutions just as, for example, medicine and engineering in Illinois are denied to the emerging universities. It is difficult to set priorities either on a statewide or on an institutional basis, but the failure to do so is both wrong and administrative cowardice. The decisions may have to be as politically unpopular and as economically necessary as the denial of primary education to a portion of a generation of Africans.

Third, we should encourage — indeed, insist — that these institutions develop new models for higher education. On my own campus, I have called it educational recapitulation. Do you remember the concept of recapitulation in biology? Ontogeny recapitulates phylogeny — the history of the race is repeated in embryonic development. Why do developing institutions have to reinvent the wheel or retrace the unsatisfactory steps of the developed institutions? Why, for example, must there be a sharp cleavage between teacher education and the academic disciplines in these institutions at precisely the time that the major institutions are moving to heal that breach?

It is extremely difficult to get a faculty at an emerging institution to be imaginative, to develop programs that are modern and not mere copies of existing programs, and to avoid some of the lumbering mistakes the major institutions have made. The personal ambitions of both faculty and administrators and often their unwillingness, hesitance, or inability to act creatively are severe internal problems. But equally serious is the inability or unwillingness of consultants and accrediting associations to recognize alternative models. Just as foreign advisors should not attempt to impose upon an emerging nation their own models, I would plead for foreign educational advisors in the form of consultants or accrediting teams to encourage indigenous imagination, new programs, and alternative routes to similar goals. New programs, of course, should be examined for quality in staff and concept, but quality is not identical with sameness.

American higher education is at a crucial point. Its strength in the past has been its pluralism. Its future is dependent upon its ability to be as responsive to society as the Morrill Act of a century ago was responsive to national development. The creative imagination of all of us is essential; it is to our collective good that we demand that the emerging institutions be different and not be merely gray shadows.

One of the items in American frontier history which has captured the imagination of many of us was the bundling board. What I have done this evening is to put two apparently incompatible ideas — the idea of an emerging nation and the idea of an emerging institution — on two sides of the bed and attempt to remove the bundling board. Only you will know, after an appropriate gestation period in your mind, whether or not I have been successful.

Social Accounting and Its Applications in Peru

RENÉ VANDENDRIES*

Systematic national accounts work in Peru began in 1946 when the Central Reserve Bank was officially charged with the preparation and publication of yearly estimates of national income and product. Since then, time series for the national accounts, beginning with 1942, were published regularly until 1962. During this period, little or no change took place in either the methodology or the basic data sources used.

In 1961, two major developments occurred in Peru which were to contribute to a complete revision of the national accounts. On the one hand, the first census in two decades was held in 1961. Its results greatly improved some of the statistical series. On the other hand, the Alliance for Progress, of which Peru is a charter member, was created during the same year. The requirements of development planning in subsequent years increased the demands for reliable national income accounts to a considerable degree.

During the early sixties, the Central Reserve Bank became increasingly aware of the need to revise its estimates. One of the problems was a significant underestimation of the absolute level of national income. As early as 1963, a special publication of the bank appeared with revised higher estimates. Another, possibly more important, problem was the deflating procedure used by the Central Reserve Bank to convert the accounts, which were derived in current prices to constant

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terms. Only two alternative price deflators were available, a cost-of-living index and an index of wholesale prices. As the behavior of the two indices was very dissimilar, confusion was considerable.

When the National Planning Institute was created in 1962, the lack of reliable national accounts in constant prices was a serious obstacle to the initiation of planned economic development. As a result, the institute proceeded to derive its own national income accounts, largely under the guidance of the economists of the Economic Commission for Latin America. The method used by the National Planning Institute was the derivation of the national accounts at constant prices by the use of quantity indices for each sector. Basically, sectoral value-added figures were established for the base year by subtracting purchases of intermediate products from total sales. Next, sectoral quantity indices were applied to the base-year value-added figures to obtain the time series for the value-added by sector in constant (base-year) prices. The sum of these, given the methodology used by the National Planning Institute, provided the estimate of Gross Domestic Product at constant prices. Quantity indices are, of course, subject to the same difficulties as price indices.

The argument most commonly advanced by the National Planning Institute in favor of quantity indices, however, was that they are much easier to compile than price indices.

This meant that Peru, with its scarce supply of trained professional personnel, was in the senseless situation of having two public agencies producing official national income estimates. In addition, there was, in a number of instances, little agreement between time series from the two sources relating to the same variable. Fortunately, it appears that during the latter part of the 1960s the two agencies began to cooperate. Presently, the bulk of Peru's national accounts work is done in the Central Reserve Bank, while the National Planning Institute concentrates on its role of research and economic policy advice to the government.

One beneficial effect of the institute's endeavor in national income accounting was probably the added incentive it provided for the Central Reserve Bank to complete a thorough revision of its estimates. Beginning in 1963, the bank completely reestimated the national income accounts from the year 1950. The results were published in 1966 and updated in a new publication in 1968. What follows is a description of the bank's improved methodology.

THE METHODOLOGY OF THE NATIONAL ACCOUNTS

Most of the basic statistics used in the elaboration of the accounts are originated by various government agencies. Two principal sources of information are the 1961 population census, the importance of which was briefly mentioned earlier, and yearly questionnaires sent to all enterprises subject to taxation. These questionnaires provide extremely valuable data on such items as wages and salaries paid, profits, sales, and inventories. Because they are completed and returned together with the tax declaration, however, there is good reason to doubt their accuracy. Most probably they underestimate such items as sales or profits. Even so, because they are available for approximately 20 years on an annual basis, they form part of the essential source data of the national accounts.

Basically, the approach used by the Central Reserve Bank in estimating the national accounts of Peru is a mixture of the income and product approaches. The calculation of national income by categories such as wages, salaries, and profits, relies fairly heavily on the abovementioned questionnaires and on the population census. Some of the information is readily available from these sources. In addition, the procedure commonly used for the large groups of nonregistered workers and employees for whom no data are collected by questionnaire, is to multiply a time series of average incomes of individuals engaged in similar employment (which may be obtained from the questionnaires) with the time series of the number of people in a given occupation. In contrast, the product approach is used to derive incomes for persons employed in the large agricultural subsistence sector. From the estimate for gross value of agricultural production, intermediate purchases plus estimates for capital depreciation and indirect taxes are subtracted. From this amount, the income of the commercial agricultural sector is subtracted to compute the subsistence income. Simultaneously with the estimation of income by type of factor payment, the national income by industrial sector is determined by the summation of the various types of income by sector of origin, with the exception of agricultural income which is derived as noted above. These national income figures are subsequently adjusted to provide time series for Gross National and Gross Domestic Products as well as for personal income and disposable income.

Unfortunately, Peru's expenditure accounts are derived in such a way that they do not provide a check on these income-product account esti-

mates. Export and import data are available from foreign trade and balance of payments estimates. Government consumption figures come from the government accounts. Gross investment estimates are calculated as follows. The total amount of machinery and equipment produced in Peru is relatively small and data can be obtained readily from the bank's questionnaires; the rest is imported and documented in the import statistics. The bank then adds import duties (when applicable), installation, commercialization, and other costs to obtain the value of capital investment. A similar procedure is followed for that part of gross investment which is new construction, and an estimate is also made of the change in stocks. Finally, private consumption is estimated as the difference between all of the above and the Gross National Product, as obtained from the income-product accounts. The absence of an independent estimate of private consumption expenditures not only eliminates the possibility of a verification of Peru's national accounts but also implies that the private consumption series as such is very unreliable.

The method used by the Central Reserve Bank to convert the Gross National Product at current prices into constant terms consists of the deflation of the expenditure accounts by a number of separate price deflators for different categories of expenditures. The base year used is 1963. No attempt is made to deflate the income accounts. On the other hand, the product accounts (by industrial sector) are deflated using an entirely different method. The expressed purpose is to provide a check on the deflation of the expenditure accounts, but the results are far from satisfactory. In general, following the methods advocated by the Economic Commission for Latin America, sectoral quantity indices are applied to the value-added figures for the base year 1963.

However, the estimate for one sector, "others," constituting more than one-third of the total product, appears as the difference between the sum of real Gross National Product of all sectors except "others" and total real Gross National Product obtained by the deflation of the expenditure accounts. According to the Central Reserve Bank, the resulting growth rate of the sector "others" does not seem unreasonable and it is therefore concluded that the results of the two deflating procedures confirm each other!

Peruvian social accounting is limited mainly to national income accounts. Input-output tables have been constructed at various times in the past by the Central Reserve Bank but the reliability of the estimates was very much in doubt. For the year 1955 the Economic Commission

for Latin America constructed an input-output table for Peru but concentrated mainly on the manufacturing sector. The latest effort, referring to the year 1963, is a much more complete table constructed by J. L. Checkley of the National University of San Marcos, Lima, and published in 1968. Thus far, Peru's policymakers have not relied on input-output information, and this may partly explain a consistent tendency to underestimate, for instance, future import requirements. Clearly, input-output information can be extremely useful to planners. It allows them to estimate more correctly the effect of a given expansion of different sectors on import, labor, and other requirements, or to determine an import policy on the basis of the information on costs and cost components provided by the input-output table. The construction of such a table, however, requires a tremendous amount of resources (the 1963 table became available only in 1968 precisely because of a shortage of resources) and to be very useful they should be available to the planners for a relatively recent year.

SPECIAL PROBLEMS IN AN EXPORT ECONOMY

Peru's Gross National Product consists approximately of 20 percent exports, largely in the form of primary products. During the postwar period, the country has enjoyed a relatively high rate of growth of income and recent studies on Peru generally indicate that the main stimulus to growth was provided by the export sector.[1] Furthermore, a substantial portion of the export commodities is produced by foreign investors. In a primary product export economy, such as Peru, some aspects of the accounts, which may be of minor importance in most developed economies, acquire special significance. The distinction between national and domestic (or geographic) aggregates is a prime example. The Central Reserve Bank estimates Peru's accounts on a national basis, that is, the international flows of factor income are reflected in the accounts. Yet, at the same time, it is considered very important to publish the time series for total gross product on a domestic basis. The reason is that the net international flow of factor income in a country such as Peru, where a substantial part of the capital stock

[1] See for instance: Erik Thorbecke and Apostolos Condos, "Macroeconomic Growth and Development Models of the Peruvian Economy," *Theory and Design of Economic Development,* ed., Irma Adelman and Erik Thorbecke (Baltimore: Johns Hopkins Press, 1966); and René Vandendries, *Foreign Trade and the Economic Development of Peru* (doctoral diss., Iowa State University, 1967).

is foreign-owned, is consistently directed out of the country, implying that the Domestic Product is always larger than the National Product. Over the last few years this net flow has fluctuated around 2 percent of Gross Domestic Product.

Another, and probably more important, observation concerning the accounts is the importance attached to the terms of trade effect in a primary product exporting country. The Central Reserve Bank publishes both real GNP (in constant 1963 prices) and real GNP adjusted for the terms of trade effect. The difference between the two series is significant and the choice depends on the purpose for which the accounts are to be used. When deflating the expenditure accounts in order to obtain real GNP, export earnings must be deflated by an appropriate export price index. Because many primary product export prices are subject to substantial fluctuations, however, their behavior may be one of the most important outside influences on the economy. In particular, if it is desirable to estimate changes in the consumption standards which a country can obtain with its exports (that is, the imports it can buy with its exports), the changes in the purchasing power of exports are the important variable rather than the changes in volume. The method followed by the Central Reserve Bank to adjust real GNP for the terms of trade effect is simple. In deflating the expenditure accounts, current export earnings are deflated by the import price index rather than by the export price index.

THE MAJOR DEFICIENCIES

The preceding discussion reveals that the procedures used to estimate national income and product in Peru have improved substantially during the last few years. Because of the government's desire to initiate planned economic development in the early sixties, better national accounts were essential to provide the aggregate basis for preparing plans. Some of the refinements which were introduced, such as the deflating procedure used to convert GNP at current prices into GNP at constant prices, were of extreme importance.

In spite of the progress made, the shortcomings in Peru's national accounts are still of such a magnitude that great care must be exercised in interpreting the data. An obvious deficiency, for instance, is the absence of an independent series for private consumption expenditures. A reliable estimate of the total value and structure of private consumption is very desirable both for economic analysis and planning purposes.

Furthermore, because the consumption expenditure account is derived as a residual, and given the fact that the income and product accounts are derived simultaneously, it is entirely impossible to check the accounts for accuracy. The consumption series is one of the main concerns of the Central Reserve Bank, but its independent estimation would require statistical resources far beyond those presently available.

The present national accounts system is incomplete in a number of other ways. For example, no breakdown exists for gross fixed capital formation; the subsistence sector is estimated as a residual; and the income series for all so-called independent income earners (subsistence farmers, small traders, artisans, and so forth) are a mixture of returns to labor and capital. Moreover, as is true for most developing economies, the reliability of the basic data which are presently being collected in Peru and from which the national income accounts are constructed, is highly questionable. Consequently, the problem being faced is twofold: both more and better data are necessary. At the present stage of national income accounting in Peru, it can be argued that progress in the collection of those basic statistics presently used in the accounts appears to be a better use of statistical resources than an expansion of the national accounts work as such. Information on agricultural production and income is extremely tenuous. Wide divergences exist between estimates of agricultural production provided by different government agencies and many data are simply arbitrary guesses. A census of agriculture in 1961, a national agricultural sample survey in 1963, and later surveys of selected areas have improved this situation. Still, the data on agriculture published by the Central Reserve Bank in the national accounts differ from the basic data provided by the Ministry of Agriculture. The numerous changes made by the bank may be justified, yet adjustments to basically questionable data must still rely on many arbitrary decisions. The income series of the agricultural subsistence sector, derived as a residual after subtracting commercial agricultural income from the total, obviously has little value.

Another major possible source of inaccuracies lies in the population and labor force statistics which, as mentioned before, are used extensively in the preparation of the accounts. All yearly labor force data by occupational categories are based on the information contained in the only two censuses of this century (1940 and 1961) and on the yearly information gathered by the Central Reserve Bank from enterprises subject to income taxes. Necessarily, statistics thus derived may contain

many and serious errors. The estimated number of people in a given occupation then is multiplied by an indirect estimate of their average income in order to construct parts of the income accounts not otherwise obtainable. Obviously, the reliability of such estimates is extremely questionable.

Whereas Peru, as opposed to many other developing countries, is at least in the fortunate position of having yearly data on its larger enterprises, it was stressed earlier that the validity of this information is limited by the fact that it is prepared for tax purposes. The Central Reserve Bank does adjust the figures, notably for the possible underdeclaration of profits, but the adjustments appear to be quite arbitrary.

The deficiencies in the basic statistics discussed in the previous paragraphs are especially important because of the heavy reliance which is placed on these data in Peru's national accounts analysis. But the list of shortcomings in the primary statistical information does not end here. Some of the price indices used to deflate the expenditure accounts are still far from satisfactory because of a lack of data. For instance, the index used to deflate consumer expenditures appears to be based mainly on price data for the capital city rather than for the country as a whole. Other examples are the balance of payment accounts, still constructed on the basis of extremely uncertain information, or the government accounts, where reliable data are especially lacking with regard to Peru's large independent public subsector.

CONCLUSIONS

When Peru joined the Alliance for Progress in 1961, it made a firm commitment to start economic analysis and planning in order to raise the growth rate of the economy. From the beginning it was obvious that the available macroeconomic information was very scarce and poor. The Central Reserve Bank responded by initiating a complete revision of the national income accounts. At the same time, the National Planning Institute began to construct its own accounts and continued to do so until very recently when it was decided that the bank was better prepared for the task.

The revisions made by the Central Reserve Bank were far-reaching. Yet, numerous gaps are left in the accounts. Furthermore, many of the basic statistics presently used are simply unreliable. It is useful to distinguish between these two problems. That both more and better data are needed is generally agreed. Given the scarcity of statistical person-

nel, however, a question of priorities obviously exists. As desirable as it may seem to expand the accounts and the quantity of information available, it appears that improvements in the quality of the data should receive first priority in Peru. The intention in these conclusions is certainly not to argue against expanded national accounts efforts and the eventual elaboration of a completely integrated system of accounts. The insights into overall economic development and the interrelationships between different variables which the macroaccounts provide are essential to economic analysis and the formulation of consistent development plans. Further, the Peruvian government's desire to further the development of the country by the preparation and implementation of development plans will require more and more data, and every effort possible should be made to meet this demand. If the error in the basic data is too large, however, the data are worse than useless as wrong policy conclusions might be reached with detrimental effects for the economy. The task of strengthening Peru's present accounts by an improvement of the quality of the basic statistics from which they are derived seems to warrant primary consideration for these reasons.

The basic statistics most in need of improvement, including data on the population and the labor force, are especially important. A country should know, first of all, the size and characteristics of its population. Recently, Peru's National Statistical and Census Office has succeeded in collecting more demographic information by sample surveys in major cities. The quality of the statistics on agricultural production and income, which is another area of foremost interest to the policymakers, continues to be a much debated issue in Peru.

Other basic data include such items as wages, salaries, and prices, as well as governmental and balance of payments accounts. In the collection of all of these data, Peru might wish to rely more and more heavily on sampling methods. A limited but reliable set of basic statistics and national accounts would provide the policymakers with better tools than an expansion of the scope of relatively unreliable data. A final remark could be made concerning the slowness with which the information usually becomes available. Policymaking is made very difficult if the last available information for a given variable is two or more years old.

*A Classification Schema of Methods for Reporting Effects of Resource Price Changes (with Technical Appendix)**

EDWARD L. SUMMERS† AND JAMES WESLEY DESKINS**

The literature of accounting abounds with discussions of the theory and method for dealing with the problem of changing resource prices. At times, neither the title of the work nor the author's approach makes it clear that the inquiry deals with the general subject of changing resource prices. For example, *Accounting Research Study No. 6*[1] focuses on price-level adjustments to historical cost financial statements and offers arguments that the relationship of this subject to the general problem can be ignored.[2]

In this paper we present a taxonomy of the various responses to the problem of financial reporting in the presence of resource price changes.

POSSIBLE RESPONSES TO CHANGING RESOURCE PRICES

The different responses to the problem of changing resource prices may be classified according to the four major items as shown in Table 1.

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[1] Staff of the Accounting Research Division, "Reporting the Financial Effects of Price-Level Changes," *Accounting Research Study No. 6* (New York: AICPA, 1963).

[2] Ibid., p. 29, where it says "We stress this *distinction* between replacement costs and price-level adjustments . . . (emphasis supplied).

Table 1. Range of Responses to Reporting Measurements of Resource Transactions

I. Stability of measuring unit
  A. Measuring unit assumed to be stable
  B. Measuring unit assumed to be variable
II. Mode of measurement
  A. Historical cost
  B. Current replacement costs (by appraisals or specific price-level adjustments)
  C. Net realizable value
III. Treatment of capital at beginning of period
  A. Not restated
  B. Restated in terms of end-of-period dollars
IV. Treatment of price-change-related gain or loss
  A. As part of period income
  B. As a nonincome change in capital

A total of twenty-four reporting methods (response combinations) can be generated from this table. Eleven of these have little or no correspondence with economic reality. The remaining thirteen combinations are presented in Table 2 under four general categories of methods:

1. Conventional financial accounting: this system, in current use, is so familiar that it requires no further elaboration.

2. "Common dollar" accounting: this system incorporates general price-level adjustments in historical costs. If beginning capital is not restated, the difference between beginning and ending capital after all other effects have been considered is due to the change in the measuring unit. If beginning capital is restated, the difference between beginning and ending capital after all other effects have been considered is due to the change in the purchasing power of monetary assets. In either case, the difference may be regarded as part of period income or as a nonincome change in capital.

3. "Current replacement cost" accounting: this system values real assets at replacement costs minus an adjustment which is proportional to the fraction of the total service potential already consumed. Expenses are either out-of-pocket amounts or the replacement cost of the services consumed. If the measuring unit is assumed stable, the beginning capital will not be restated, in which case the difference between beginning and ending capital, after all other effects (including realized income) have been considered, is due to the change in the replacement cost value of real assets. If the measuring unit is not assumed to be stable, beginning

Table 2. Response Combinations for Consideration, Classified by Category*

(1) Conventional financial accounting = a

$$a = \left\{ \overset{\text{a-1}}{\begin{bmatrix} \text{I:A} \\ \text{II:A} \\ \text{III:A} \\ \text{IV:A} \end{bmatrix}} \right\}$$

(2) "Common dollar" accounting = b

$$b = \left\{ \overset{\text{b-1}}{\begin{bmatrix} \text{I:B} \\ \text{II:A} \\ \text{III:A} \\ \text{IV:A} \end{bmatrix}} \overset{\text{b-2}}{\begin{bmatrix} \text{I:B} \\ \text{II:A} \\ \text{III:A} \\ \text{IV:B} \end{bmatrix}} \overset{\text{b-3}}{\begin{bmatrix} \text{I:B} \\ \text{II:A} \\ \text{III:B} \\ \text{IV:A} \end{bmatrix}} \overset{\text{b-4}}{\begin{bmatrix} \text{I:B} \\ \text{II:A} \\ \text{III:B} \\ \text{IV:B} \end{bmatrix}} \right\}$$

(3) "Current replacement cost" accounting = c

$$c = \left\{ \overset{\text{c-1}}{\begin{bmatrix} \text{I:A} \\ \text{II:B} \\ \text{III:A} \\ \text{IV:A} \end{bmatrix}} \overset{\text{c-2}}{\begin{bmatrix} \text{I:A} \\ \text{II:B} \\ \text{III:A} \\ \text{IV:B} \end{bmatrix}} \overset{\text{c-3}}{\begin{bmatrix} \text{I:B} \\ \text{II:B} \\ \text{III:B} \\ \text{IV:A} \end{bmatrix}} \overset{\text{c-4}}{\begin{bmatrix} \text{I:B} \\ \text{II:B} \\ \text{III:B} \\ \text{IV:B} \end{bmatrix}} \right\}$$

(4) Net realizable value accounting = d

$$d = \left\{ \overset{\text{d-1}}{\begin{bmatrix} \text{I:A} \\ \text{II:C} \\ \text{III:A} \\ \text{IV:A} \end{bmatrix}} \overset{\text{d-2}}{\begin{bmatrix} \text{I:A} \\ \text{II:C} \\ \text{III:A} \\ \text{IV:B} \end{bmatrix}} \overset{\text{d-3}}{\begin{bmatrix} \text{I:B} \\ \text{II:C} \\ \text{III:B} \\ \text{IV:A} \end{bmatrix}} \overset{\text{d-4}}{\begin{bmatrix} \text{I:B} \\ \text{II:C} \\ \text{III:B} \\ \text{IV:B} \end{bmatrix}} \right\}$$

* Sets marked [] denote reporting methods. Elements within such sets describe how that method responds to the items mentioned in Table 1. Sets marked {} are measurement categories. Elements of such sets are methods which conform to the category names.

capital must be restated, and the difference between beginning and ending capital after all other effects have been considered is due both to the change in replacement cost of real assets and to the change in the purchasing power of monetary assets. Each change can be treated as either an element of period income or as a nonincome element of change in capital.

4. Net realizable value accounting: this system values all assets at net realizable value. Expenses are out-of-pocket amounts or the realizable value of services consumed. If the measuring unit is assumed stable,

beginning capital is not restated and the difference between beginning and ending capital after all other effects have been considered is due to the change in net realizable value of assets. If the measuring unit is not assumed to be stable, beginning capital is restated and the difference between beginning and ending capital after all other effects have been considered is due both to the change in net realizable values and the change in the purchasing power of monetary assets. Again, each change can be treated as either an element of period income or as a nonincome element of change in capital.

RELATION OF RESPONSES TO INCOME THEORIES

In the absence of investment or disinvestment, income is a difference between some measure of total capital at the end of the period and an equivalent measure of total capital at the beginning of that period. Although this definition of income applies to all the modes of measurement, the measure of capital used in each mode will be different. Starting with the three measurement modes (historical cost, replacement cost, and net realizable value), and recognizing income either when realized (i.e., as a result of a transaction with independent parties), or when earned, six theories of income may be identified. The response combinations methods which correspond to each of these income theories are given in Table 3. This classification schema can be related to certain specific proposals in the accounting literature. Although an exact one-to-one correspondence does not exist, we suggest the following relationships.

Combination a-1 is that of contemporary financial accounting practice as reflected in many textbooks on intermediate accounting.

Combinations c-1 and d-1 correspond to the proposals of Sprouse and Moonitz in *Accounting Research Study No. 3*;[3] d-1 is recommended for inventories and c-1 for fixed assets. They hold a-1 as a reserve basis for measurement when d-1 and c-1 cannot be used with confidence. Chambers'[4] ideas most nearly match combination c-1, and Howard Ross's[5] theories would probably best fit d-1.

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[3] Robert T. Sprouse and Maurice Moonitz, "A Tentative Set of Broad Accounting Principles for Business Enterprises," *Accounting Research Study No. 3* (New York: American Institute of Certified Public Accountants, 1962).

[4] Raymond J. Chambers, *Accounting, Evaluation and Economic Behavior* (Englewood Cliffs, N.J.: Prentice-Hall, 1966).

[5] Howard Ross, *The Elusive Art of Accounting* (New York: The Ronald Press, 1966).

Table 3. Relationship of Income Theories and Response Combinations

Theory	Appropriate response from Table 1				Consistent response combinations methods from Table 2
	Variable	Value			
I. Income as an excess over beginning-of-period measured capital, recognized when realized	I	A			a-1
	II	A			
	III	A			
	IV	A			
II. Income as an excess over beginning-of-period measured capital, recognized when earned	I	A		A	c-1, d-1
	II	B	or	C	
	III	A		A	
	IV	A		A	
III. Income as an excess over the general purchasing power of beginning-of-period capital, to be recognized when realized	I	A*		B†	a-1* or b-3†
	II	A	or	A	
	III	A		B	
	IV	A		A	
IV. Income as an excess over the general purchasing power of beginning-of-period capital, to be recognized when earned	I	B		B	c-3, d-3
	II	B	or	C	
	III	B		B	
	IV	A		A	
V. Income as an excess over the resources originally possessed, to be recognized when realized	I	A*		B†	a-1* or b-3†
	II	A	or	A	
	III	A		B	
	IV	A		A	
VI. Income as an excess over the resources originally possessed, to be recognized when earned	I	A*		B†	d-1* or d-3†
	II	C	or	C	
	III	A		B	
	IV	A		A	

* Measuring unit assumed to be stable.
† Measuring unit not assumed to be stable.

Apparently, combination b-3 is recommended by *Accounting Research Study No. 6,* although there is some hedging concerning the labeling of the price-change-related gain or loss on the income statement.

Our c-3 combination is most nearly approximated by the method of

Edwards and Bell,[6] whereas d-3 seems to have no direct counterpart in present literature. However, had the Sprouse and Moonitz study directly addressed itself to the problem of changing general price levels, we believe they would have proposed something similar to c-3 and d-3.[7]

We should emphasize that in our response combinations, classes I and II were required to have linked values. That is, beginning capital is always adjusted for general price-level changes when and only when we assume an unstable measuring unit. Any other assumption is not compatible with our generated income concepts. As a result, the methods of Sweeney[8] and *A Statement of Basic Accounting Theory*[9] do not appear in the section above. If the method described in the latter incorporated adjustments of beginning-of-period capital for general price-level changes, then it would approximate our combination c-3.[10]

CONCLUSIONS

In this paper we emphasized the relationship among many comprehensive accounting measurement-reporting theories. We have shown that major contemporary theories can be generated from a small set of alternative initial assumptions, and that this frame of reference is of wide explanatory value in studying these theories.

A TECHNICAL APPENDIX

This technical appendix presents an illustration concerning the activities of the Onarga Company (an imaginary entity). The illustration is intended to demonstrate the general application of response combinations a-1, b-3, c-1, d-1, c-3, and d-3 to a given fact situation. Some assumptions necessary for understanding the illustration are set out below:

1. With respect to general price levels, the conditions in Table I at the times indicated are assumed to be true.

2. The values for historical cost, replacement cost, and net realizable

[6] Edgar O. Edwards and Philip W. Bell, *The Theory and Measurement of Business Income* (Berkeley: University of California Press, 1961).
[7] Sprouse and Moonitz, "Broad Accounting Principles," p. 17.
[8] Henry W. Sweeney, *Stabilized Accounting* (New York: Harper & Row, 1936).
[9] *A Statement of Basic Accounting Theory* (Evanston, Ill.: American Accounting Association, 1966).
[10] An illustration which applies each of the six response combinations in Table 3 to a common fact situation will be presented in the technical appendix which follows.

Table I. General Price-Level Index Data

Time	Index Value	Factor for converting dollars at that time to December 31, 1961, dollars[11]
January 1, 1961	106.2	1.03578154
December 31, 1961	110.0	1.00000000
Average, November–December 1961	109.4	1.00548446
Average, January–December 1961	108.0	1.01851852
Average, November–December 1960	106.0	1.03773585
At date of acquisition of property, plant, and equipment	97.0	1.13402062
At date of sale of capital stock	97.0	1.13402062

[11] It is unrealistic to assume that the numbers in this column contain more than four significant digits. It is useful for present purposes, however, to do so. It avoids the destruction of asset, equity equality due to rounding error. Accordingly, we assume that these factors have nine significant digits.

value of inventories and property, plant, and equipment are given in Tables II and III.

3. The depreciation method is straight line, except in Exhibits IV and VI.

4. At January 1, 1961, the property, plant, and equipment had a useful life of seven years.

5. The inventory turnover is approximately six; therefore, the year-end inventory is made up of the last two month's purchases.

The historical cost data in Exhibit I may also be thought of as an assumption.

Exhibit I consists of comparative end-of-year balance sheets for 1960 and 1961 for Onarga and an income statement for 1961. All account balances have been determined such that the financial statements could receive a favorable opinion from an independent auditor. The exhibit corresponds with method a-1.

Exhibit II represents Exhibit I converted to units of equivalent purchasing power, called θ's, which are set equal to dollars at December 31, 1961; it corresponds with method b-1.

Table II

Item	Date	Historical Cost	Replacement Cost	Remarks
Inventories	December 31, 1960	$200,000	$210,000	
	December 31, 1961	250,000	260,000	($254,000 at December 31, 1960, prices; $259,000 at November 1, 1961, prices)
Property, Plant, and Equipment	December 31, 1960	700,000 (net of depreciation)	800,000	(These figures are replacement cost minus a portion thereof proportionate to the ratio of consumed service potential to the original service potential)
	December 31, 1961	600,000 (net of depreciation)	710,000	

Exhibit III is Exhibit I modified to include the replacement values shown in Table II and corresponds with method c-1.

Exhibit IV is Exhibit I modified to include the net realizable values shown in Table II. It corresponds with response combination d-1.

Exhibit V represents the measurements of Exhibit III converted into θ's. Accordingly, it corresponds with method c-3.

Exhibit VI represents Exhibit IV converted to θ's. It corresponds to method d-3.

Table III

Item	Date	Net Realizable Value
Inventories	December 31, 1960	$240,000
	November 1, 1961	295,000
	December 31, 1961	310,000
Property, Plant, and Equipment	December 31, 1960	500,000
	December 31, 1961	410,000
	December 31, 1961, in same condition as at December 31, 1960	490,000

The techniques employed here are our own; they may or may not correspond with techniques used by authors we have associated with the response combinations. Our techniques are, however, derived from those used by Perry Mason.[12]

[12] Perry Mason, *Price-Level Changes and Financial Statements — Basic Concepts and Methods* (Evanston, Ill.: American Accounting Association, 1956).

Exhibit I. (Reflects Combination a-1)

The Onarga Company Comparative Balance Sheets. (Measured in Actual Dollar Cost)

ASSETS		December 31, 1960		December 31, 1961
Cash		$ 100,000		$ 200,000
Other monetary assets		100,000		175,000
Inventory (at cost, FIFO)		200,000		250,000
Property, plant, and equipment less accumulated depreciation		700,000		600,000
		$1,100,000		$1,225,000
EQUITIES				
Current liabilities		$ 100,000		$ 150,000
Stockholders equity				
Capital stock	$750,000		$750,000	
Retained earnings	250,000	1,000,000	325,000	1,075,000
		$1,100,000		$1,225,000

The Onarga Company Combined Statement of Income and Retained Earnings for the Year 1961. (Income Is a Function of Asset and Liability Measurement in Actual Dollar Cost)

Sales			$1,800,000
Cost of sales			
Inventory, January 1, 1961	$ 200,000		
Net purchases	1,250,000	$1,450,000	
Less, inventory, December 31, 1961		250,000	1,200,000
Gross income from sales			$ 600,000
Operating expenses			
Out-of-pocket expenditures		$ 375,000	
Depreciation of property, plant, and equipment (1/7 x 700,000)		100,000	475,000
Net income			$ 125,000
Retained earnings, January 1, 1961			250,000
			$ 375,000
Less, dividends paid			50,000
Retained earnings, December 31, 1961			$ 325,000

Exhibit II. (Reflects Combination b-3)

The Onarga Company Comparative Balance Sheets. (Measured in Units of θ Approximately Equivalent in Purchasing Power to Dollars of December 31, 1961)

ASSETS		December 31, 1960		December 31, 1961
Cash		θ 103,578a		θ 200,000f
Other monetary assets		103,578a		175,000g
Inventory (at cost, FIFO)		207,547b		251,371h
Property, plant, and equipment less accumulated depreciation		793,814c		680,412i
		θ 1,208,517		θ 1,306,783
EQUITIES				
Current liabilities		θ 103,578a		θ 150,000j
Stockholders equity				
Capital stock	θ 850,515d		θ 850,515d	
Retained earnings	254,424e	1,104,939	306,268e	1,156,783
		θ 1,208,517		θ 1,306,783

a: (100,000 x 1.03578154)*
b: (200,000 x 1.03773585)
c: (700,000 x 1.13402062)
d: (750,000 x 1.13402062)
e: A residual function of asset and other equity measurement
f: (200,000 x 1.00000000)
g: (175,000 x 1.00000000)
h: (250,000 x 1.00548446)
i: (600,000 x 1.13402062)
j: (150,000 x 1.00000000)

* The first number comes from Exhibit I; the second from Table I.

Exhibit II. Continued

The Onarga Company Combined Statement of Income and Retained Earnings for the Year 1961. (Income Is a Function of Asset and Liability Measurement in Terms of Units, θ, Approximately Equivalent in Purchasing Power to Dollars of December 31, 1961)

Sales			θ 1,833,333a
Cost of sales			
Inventory, January 1, 1961	θ 207,547b		
Purchases	1,273,148c	θ 1,480,695	
Less, inventory, December 31, 1961		251,371b	1,229,324
Gross income from sales			θ 604,009
Operating expenses			
Out-of-pocket expenditures		θ 381,944d	
Depreciation of property, plant, and equipment		113,402e	495,346
Net income from operations			θ 108,663
Loss in purchasing power on net monetary assets held			(5,893)f
Net income			θ 102,770
Retained earnings, January 1, 1961			254,424
			θ 357,194
Less, dividends paid			50,926g
Retained earnings, December 31, 1961			θ 306,268

a: (1,800,000 x 1.01851852)
b: See Balance Sheets above
c: (1,250,000 x 1.01851852)
d: (375,000 x 1.01851852)
e: (100,000 x 1.13402062)
f: ([100,000 x .03578154] + [125,000 x .01851852])
g: (50,000 x 1.01851852)

Exhibit III. (Reflects Combination c-1)

The Onarga Company Comparative Balance Sheets. (Nonmonetary Assets Measured in Terms of Approximate Cost of Replacement in Actual Dollars)

ASSETS		December 31, 1960		December 31, 1961
Cash		$ 100,000		$ 200,000
Other monetary assets		100,000		175,000
Inventory, at cost of replacement		210,000a		260,000a
Property, plant, and equipment, at cost of replacement, less accumulated depreciation of replacement cost		800,000a		710,000a
		$1,210,000		$1,345,000
EQUITIES				
Current liabilities		$ 100,000		$ 150,000
Stockholders equity				
Capital stock	$ 750,000		$ 750,000	
Retained earnings	360,000	1,110,000	445,000	1,195,000
		$1,210,000		$1,345,000

a: See Table II for an explanation of these values.

Exhibit III. Continued

The Onarga Company Combined Statement of Income and Retained Earnings for the Calendar Year 1961. (Income Is a Function of Nonmonetary Asset Measurement in Terms of Approximate Cost of Replacement in Actual Dollars)

Sales			$1,800,000
Cost of sales			
Inventory, January 1, 1961	$ 210,000		
Purchases at cost of replacement	1,255,000	$1,465,000	
Inventory, December 31, 1961, at November 1, 1961, cost of replacement		259,000	1,206,000
Gross income from sales			$ 594,000
Operating expenses			
Out-of-pocket expenditures		$ 375,000	
Depreciation of property, plant, and equipment (on January 1, 1961, replacement cost)		114,286c	489,286
Net income from operations			$ 104,714
Holding gains and losses			
Holding gain on inventory — realized		$ 5,000d	
Holding gain on inventory — unrealized		1,000a	
Holding gain on property, plant, and equipment — unrealized		10,000e	
Holding gain on property, plant, and equipment — realized		14,286b	30,286
Net income			$ 135,000
Retained earnings, January 1, 1961			360,000
			$ 495,000
Less, dividends paid			50,000
Retained earnings, December 31, 1961			$ 445,000

a: ($260,000 – $259,000)
b: 1/7 of (800,000 – 700,000)
c: 1/7 of $800,000
d: ($1,255,000 – $1,250,000)
e: ($710,000 + 114,286 – 14,286 – 800,000)

Exhibit IV. (Reflects Combination d-1)

The Onarga Company Comparative Balance Sheets. (Nonmonetary Assets Measured in Terms of Approximate Net Realization Value in Actual Dollars)

ASSETS		December 31, 1960		December 31, 1961
Cash		$ 100,000		$ 200,000
Other monetary assets		100,000		175,000
Inventory, at net realization		240,000a		310,000a
Property, plant, and equipment		500,000a		410,000a
		$ 940,000		$1,095,000
EQUITIES				
Current liabilities		$ 100,000		$ 150,000
Stockholders equity				
Capital stock	$ 750,000		$ 750,000	
Retained earnings	90,000	840,000	195,000	945,000
		$ 940,000		$1,095,000

a: See Table III for an explanation of these values. Also note the absence of any provision for depreciation, a characteristic of this method of measurement.

Exhibit IV. Continued

The Onarga Company Combined Statement of Income and Retained Earnings for the Calendar Year 1961. (Income Is a Function of Asset Measurement in Terms of Net Realizable Value in Actual Dollars)

Sales			$1,800,000
Cost of sales			
Inventory, January 1, 1961	$ 240,000a		
Purchases at net realization	1,525,000b	$1,765,000	
Inventory, December 31, 1961		310,000	1,455,000
Gross income from sales			$ 345,000
Operating expenses			
Out-of-pocket expenditures	$ 375,000		
Depreciation on net realization	80,000c		455,000
Net loss from operations			($ 110,000)
Holding gains and losses			
Realized holding gains on purchases	$ 215,000d		
Unrealized holding gains on purchases (in inventory)	60,000e		
Realized holding losses on property, plant, and equipment (not applicable)			
Unrealized holding losses on property, plant, and equipment	(10,000)f		265,000
Net income			$ 155,000
Retained earnings, January 1, 1961			90,000
			$ 245,000
Less, dividends paid			50,000
Retained earnings, December 31, 1961			$ 195,000

a: See Table III for an explanation of these values
b: The net realization from sale of assets purchased for resale immediately when they are ready for such resale
c: (490,000[*a*] − 410,000[*a*])
d: (1,525,000 − 1,250,000 − 310,000 + 250,000)
e: (310,000 − 250,000)
f: (500,000[*a*] − 490,000[*a*])

Exhibit V. (Reflects Combination c-3)

The Onarga Company Comparative Balance Sheets. (Nonmonetary Assets Measured in Terms of Cost of Replacement. The Unit of Measure for Each Item Is a Unit, θ, Approximately Equivalent in Purchasing Power to Dollars of December 31, 1961)

ASSETS		December 31, 1960		December 31, 1961
Cash		θ 103,578a		θ 200,000f
Other monetary assets		103,578a		175,000g
Inventory, at cost of replacement		217,514b		260,000h
Property, plant, and equipment, at cost of replacement, less depreciation on replacement cost		828,625c		710,000i
		θ 1,253,295		θ 1,345,000
EQUITIES				
Current liabilities		θ 103,578a		θ 150,000j
Stockholders equity				
Capital stock	θ 850,515d		θ 850,515d	
Retained earnings	299,202e	1,149,717	344,485e	1,195,000
		θ 1,253,295		θ 1,345,000

a: (100,000 x 1.03578154)
b: (210,000 x 1.03578154)
c: (800,000 x 1.03578154)
d: (750,000 x 1.13402062)
e: A residual function of asset and other equity measurement
f: (200,000 x 1.00000000)
g: (175,000 x 1.00000000)
h: (260,000 x 1.00000000)
i: (710,000 x 1.00000000)
j: (150,000 x 1.00000000)

The Onarga Company Combined Statement of Income and Retained Earnings for the Calendar Year 1961. (Income Is a Function of Asset Measurement in Terms of Cost of Replacement with all Measurements in Units, θ, Approximately Equivalent in Purchasing Power to Dollars of December 31, 1961)

Sales			θ 1,833,333a
Cost of sales			
Inventory, January 1, 1961	θ 217,514b		
Purchases at cost of replacement	1,278,241c	θ 1,495,755	
Inventory, December 31, 1961, at November 1, 1961, replacement cost		260,420d	1,235,335
Gross income from sales			θ 597,998

Exhibit V. Continued

Operating expenses			
Out-of-pocket expenditures		θ 381,944e	
Depreciation of property, plant, and equipment (on January 1, 1961, replacement cost)		118,375f	500,319
Net income from operations			θ 97,679
Holding gains and losses			
Holding gain on inventory — realized		θ 5,093l	
Holding loss on inventory — unrealized			
Inventory, December 31, 1961, at cost of replacement on November 1, 1961	θ 260,420d		
Inventory, December 31, 1961, at cost of replacement on December 31, 1961	260,000g	(420)	
Holding gain on property, plant, and equipment — realized		4,973 h	
Holding loss on property, plant, and equipment — unrealized		(5,223)i	
Holding loss on monetary assets		(5,893)j	(1,470)
Net income			θ 96,209
Retained earnings, January 1, 1961			θ 299,202
			θ 395,411
Less, dividends paid			50,926k
Retained earnings, December 31, 1961			θ 344,485

a: (1,800,000 x 1.01851852)
b: (210,000 x 1.03578154)
c: (1,255,000 x 1.01851852)
d: (259,000 x 1.00548446)
e: (375,000 x 1.01851852)
f: (114,286 x 1.03578154)
g: (260,000 x 1.00000000)
h: 1/7 of (800,000 x 1.03578154 − 700,000 x 1.13402062)
i: (710,000 + 118,375[*f*] − 4,973[*h*] − [800,000 x 1.03578154])
j: ([100,000 x .03578154] + [125,000 x .01851852])
k: (50,000 x 1.01851852)
l: ([1,255,000 − 1,250,000] x 1.01851852)

Exhibit VI. (Reflects Combination d-3)

The Onarga Company Comparative Balance Sheets. (Nonmonetary Assets Measured in Terms of Net Realizable Value. The Unit of Measure for Each Item Is a Unit, θ, Approximately Equivalent in Purchasing Power to Dollars of December 31, 1961)

ASSETS		December 31, 1960		December 31, 1961
Cash		θ 103,578a		θ 200,000f
Other monetary assets		103,578a		175,000g
Inventory		248,587b		310,000h
Property, plant, and equipment		517,891c		410,000i
		θ 973,634		θ 1,095,000
EQUITIES				
Current liabilities		θ 103,578a		θ 150,000j
Stockholders equity				
Capital stock	θ 850,515d		850,515d	
Retained earnings	19,541e	870,056	94,485e	945,000
		θ 973,634		θ 1,095,000

a: (100,000 x 1.03578154)
b: (240,000 x 1.03578154)
c: (500,000 x 1.03578154)
d: (750,000 x 1.13402062)
e: A residual function of asset and other equity measurement
f: (200,000 x 1.00000000)
g: (175,000 x 1.00000000)
h: (310,000 x 1.00000000)
i: (410,000 x 1.00000000)
j: (150,000 x 1.00000000)

Exhibit VI. Continued

The Onarga Company Combined Statement of Income and Retained Earnings for the Calendar Year 1961. (Income Is a Function of Asset Measurement in Terms of Net Realizable Value with all Measurement in Units, θ, Approximately Equivalent in Purchasing Power to Dollars of December 31, 1961)

Sales			θ 1,833,333a
Cost of sales			
Inventory, January 1, 1961	θ 248,587b		
Purchases at net realization	1,553,241c	θ 1,801,828	
Inventory, December 31, 1961		310,000d	1,491,828
Gross income from sales			θ 341,505
Operating expenses			
Out-of-pocket expenditures		θ 381,944e	
Depreciation on net realization of property, plant, and equipment		80,000f	461,944
Net loss from operations			θ (120,439)
Holding gains and losses			
Realized holding gains on purchases		θ 221,464g	
Unrealized holding gains on purchases (in inventory)		58,629h	
Realized holding losses on property, plant, and equipment		(not applicable)	
Unrealized holding losses on property, plant, and equipment		(27,891)i	
Holding loss on monetary assets		(5,893)j	246,309
Net income			θ 125,870
Retained earnings, January 1, 1961			19,541
			θ 145,411
Less, dividends paid			50,926k
Retained earnings, December 31, 1961			θ 94,485

a: (1,800,000 x 1.01851852)
b: (240,000 x 1.03578154)
c: (1,525,000 x 1.01851852)
d: (310,000 x 1.00000000)
e: (375,000 x 1.01851852)
f: (490,000 − 410,000)
g: ([1,525,000 x 1.01851852] − [1,250,000 x 1.01851852] − 310,000 + [250,000 x 1.00548446])
h: (310,000 − [250,000 x 1.00548446])
i: ([500,000 x 1.03578154] − 490,000)
j: ([100,000 x .03578154] + [125,000 x .01851852])
k: (500,000 x 1.01851852)

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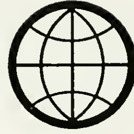

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A Note from the Editor

This particular issue marks the end of the sixth year of publication of *The International Journal of Accounting Education and Research.* The conviction that a journal dedicated to the international dimensions of accounting was both needed and would be accepted has been substantiated, we believe, by the experience and reception of our journal. We are pleased to note that fifty foreign countries are included on our subscriber list and that our aim of providing a journal for the exchange of ideas relating to international interest in accountancy is being realized.

The contributors to this particular issue also indicate the diverse national and topical ranges of our field. Aspects of Australian, Saudi Arabian, Russian, and National Chinese accounting experiences are discussed in this issue. The various stages of accounting development in its international sense are also revealed by the range of topics — some covering purely descriptive aspects and others noting more specific and debatable points in accounting theory and practice.

An index for Volumes 5 and 6 is included at the back of this issue for the convenience of our readers.

V. K. Zimmerman

Urbana, Illinois
Spring 1971

Enterprise Profit and Profitability Measurements: Soviet-American Convergence

GEORGE GORELIK*

Accounting measurements are shaped in a large measure by the context in which they are made.

Soviet accounting measurements are made in the context of a command economy. This economy is characterized by the central planning and control of enterprise activities, the state ownership of almost all nonhuman factors of production, a state-determined price system, and the absence of free markets. Individual enterprises are viewed by the central planners as branches of the giant monocorporation — the Soviet state. Allocation of resources, coordination of enterprise activities, production of most goods and services, and income distribution are achieved in the Soviet Union generally by means of commands issued by superior agencies to subordinates within the Soviet monocorporation.[1] The "invisible hand" of Adam Smith is replaced in this economic system by a conscious effort on the part of supreme national authorities to coordinate the activities of interdependent economic units and to direct the economy as a whole toward certain definite goals.

American accounting measurements are generally made in the environment of a market economy. The distinguishing features of the American economy are predominantly private ownership of the means of production, consumers' sovereignty, and the absence of conscious cen-

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* George Gorelik is an Assistant Professor of the Faculty of Commerce and Business Administration of the University of British Columbia, Vancouver, British Columbia, Canada. Professor Gorelik holds a Ph.D. degree from the University of California.

[1] G. Grossman, *Economic Systems* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967), pp. 73–97.

tral coordination, control, and direction of economic activity in which numerous economic units engage. Instead, coordination, control, and direction of economic activity are achieved primarily through the operation of the market mechanism.

In spite of significant differences between the two economic systems, technical aspects of the environment of accounting in the Soviet Union and the United States have converged sufficiently for Soviet and American accountants to perceive the relationship of enterprise accounting to its specific national environment in a similar way. The similarity in the world views of Soviet and American accountants appears to have led to similarities in managerial needs for accounting information in general and for profit and profitability measurements in particular. Measurements of profit and profitability in the two countries also appear to have remarkable similarities.

Differences in accounting measurements that still exist can be explained primarily in terms of: (1) different forms of economic organization adopted in each country, that is, command mechanism in the Soviet Union and market mechanism in the United States; and (2) presence or absence of competitive markets and of private ownership of the means of production in the two countries. The first accounts for a highly standardized accounting system in the Soviet Union and a comparative variety of accounting systems and measurements in the United States. The second accounts for the absence from Soviet accounting categories of investments in securities, intangible assets, land, and natural resources. Contrary to the practice in the United States, these items do not appear in Soviet financial statements because they are never exchanged for money in the Soviet economy.

SIGNIFICANCE OF PROFIT AND PROFITABILITY MEASUREMENTS

United States

In the American economy the overriding goal of business and its fundamental responsibility to society seems to be to generate a net gain (profit) from its operation. Market position, product leadership, productivity, management and employee performance, and development and public responsibility sometimes become important business performance criteria, but all these factors must ultimately pay off in profitability; otherwise, being first within an industry in product leadership or market position would make little sense. Allocation of scarce economic resources in the United States is largely determined by profitable opportunities available to investors.

Profit is also considered to be an important element in maintaining organizational "solvency" in the Barnard-Simon theory of organization equilibrium.[2] It provides a large measure of inducements needed to elicit contributions from parties to a business organization.

The derived measure of profitability as expressed in the concept of return on investment (ROI) has become an important tool in planning and controlling enterprise operations since World War II. The decentralization of managerial decision-making within a corporation and the attendant diffusion of profit responsibility required some appraisal of the overall performance of semiautonomous corporate divisions and of the company as a whole. Since ROI is an overall measure and since it is used by stockholders in their evaluation of company performance, it is logical for top management to use the ROI measure in evaluating performance of decentralized corporate units.

Recent studies in organizational theory have alerted management to some dysfunctional consequences of performance measurements. Lack of the impact of ROI measure on the behavior of those being evaluated and indiscriminate use of ROI have led some top managements astray and placed the whole ROI concept under suspicion.[3]

Despite temporary setbacks, the use of ROI continues to grow. ROI measures overall performance and thus answers the needs of decentralized operations.

Writing in 1969, Steiner stated that:

> A virtually universally used technique in business planning is return on investment (ROI), a simple calculation of the relationship between income and investment cost. Important variations of it are return on assets (ROA) and return on equity or net worth (ROE). ROI is a potent tool in determining the rationality of all decisions relating to expenditures. . . . Because of its simplicity and concentration on profit, ROI has become a well-used measure of managerial performance both for a company as a whole and for the individual organizational parts of it.[4]

Measurement of profit and profitability is therefore perceived to be one of the most important functions of accounting in the United States. The value of these measurements is correctly recognized to lie chiefly in the information that profit and profitability measures provide to various decision-makers in the American economy.

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[2] J. G. March and H. A. Simon, *Organizations* (New York: John Wiley & Sons, Inc., 1966), p. 84.

[3] B. D. Henderson and J. Dearden, "New System for Divisional Control," *Harvard Business Review* (September–October 1966): 144–60.

[4] G. A. Steiner, *Top Management Planning* (London: The MacMillan Company, an Arkville Press Book, 1969), p. 372.

Soviet Union

Under the *khozraschet*[5] form of organization, enterprises have been encouraged for many years to make profits in the Soviet Union. Contrary to the United States business experience, however, profits did not serve as the major criterion of the enterprise success before the 1965 Soviet economic reforms. That place was reserved for the gross output index.

The most important reason for not using profit and profitability as indices of enterprise performance was the absence of an objective criterion for price-setting and the lack of a logical relationship between prices, profits, and the desired assortment of output. Because of the arbitrary centralized price fixing practices, there was an "enormous range of profit rates as between different sectors and between different products within the same sector," which did not reflect the enterprise efficiency.[6] Further, under the Stalin rule there was a tendency to ignore the importance of profit and of value categories in general.[7] The notions of profit and profitability were considered to be capitalistic in nature, and, therefore foreign to the best interests of socialism. The disregard for profit went so far "that enterprise losses were indiscriminately considered a normal economic occurrence and a positive indication of the advantages of socialism."[8] Bureaucratic methods were substituted for the profit mechanism with the gross output index as the primary success indicator of enterprise efficiency.

The drive for rapid industrialization at any cost and concentration by the central planners on a few clearly distinguishable objectives such as, for example, maximization of output of steel or that of heavy in-

[5] Under the *khozraschet* form of organization, enterprises are required to do the following: (a) keep books of account and prepare financial statements; (b) use money in enterprise transactions; (c) deposit all cash receipts in the Gosbank (state monobank) and make all payments through the bank; (d) conduct enterprise affairs in such a manner that revenues will cover expenses and leave some profit; (e) remain solvent; and (f) fulfill contractual obligations with other agencies and enterprises.
In sum, *khozraschet* enterprises are enterprises following a set of principles for "good" management.
For further details on *khozraschet,* see D. Gallik, C. Jesina, and S. Rapawy, *The Soviet Financial System: Structure, Operation and Statistics,* Bureau of the Census Series p. 90, no. 23 (Washington: U.S. Department of Commerce, 1968), pp. 35–38.

[6] A. Kulikov, "Zakon Stoimosti i Tsenoobrazovaniye v SSR" (The Law of Value and Price Determination in the U.S.S.R.), *Voprosy Ekonomiki* 9 (1957): 80.

[7] L. Gatovskii, *Pravda* [*Truth*] (December 19, 1962): 3.

[8] J. L. Felker, *Soviet Economic Controversies* (Cambridge, Massachusetts: The M.I.T. Press, 1966), p. 76.

dustrial equipment, fitted well with the gross output index used during the Stalinist era. The behavioral disadvantages of fixing managerial attention on one or few partial indices of performance, became, however, too obvious when the economy became more complex and the priorities of planners less clear than they were during the early stages of the Soviet industrialization drive.

In the *Red Executive,* Granick cites several dramatic shortcomings of the Soviet system. As a result of using the volume index as a measure of overall enterprise effectiveness and relating the monthly bonus payments to this index, managers engaged in "the standard operating practice of storming," that is, producing everything possible in the last few days of the month.[9] Alec Nove provides another interesting example of the impact of partial "success indicators" on decisions made by the Soviet managers in the case of a factory manufacturing nails:

> When the plan was established in numbers, only small nails were made; so the basis of the plan was changed to weight, and then there were only large nails. If the plan is expressed in money, then only those nails which are cheapest to make will be produced, and probably all of the same size; if each type of nail is to be separately specified in the plan, this would be a glaring case of bureaucratic over-centralization.[10]

As we have already noted, recent Soviet economic reforms have replaced the gross output index with sales, profit, and profitability as chief indices of enterprise performance. At the end of June 1969, there were about 34,000 enterprises, which produced more than 80 percent of industrial production, working under the new conditions.[11]

The basic thrust of the reforms is in the direction of greater decentralization of decision-making in order to overcome the ills of traditional overcentralization. Although a large number of previously imposed tasks is being replaced by eight mandatory targets, strong central control over enterprises continues. This can be seen from the statement made by Kosygin on September 27, 1965:

> The enterprise will have the following indexes passed down from above:
> The volume of goods sold;
> The main assortment of goods;
> The wage fund;

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[9] D. Granick, *The Red Executive* (Garden City, New York: Doubleday and Company, Inc., 1961), pp. 230–34.

[10] A. Nove, "The Pace of Soviet Economic Development," *Lloyds Bank Review* (April 1956): 10.

[11] *Ekonomicheskaya Gazeta* (Weekly Publication of the Communist Party Central Committee), 29 (July 1969): 1.

The amount of profit and level of profitability; and
Contributions to the budget and allocations from the budget.

Besides, they will be assigned:

The volume of centralized investment and the putting into operation of production capacities and fixed assets;
The main assignments for introducing new techniques; and
The indexes of material and technical supply.

All other indexes of economic activity will be planned by the enterprises themselves, without endorsement from above. This will relieve the enterprise of uncalled for tutelage, and will enable it to adopt the most economical decisions according to the actual conditions of production.

While extending the economic independence of the enterprises, the state will continue to conduct a unified policy in the sphere of technical progress, investment, labor enumeration, prices and financing, and will insure the compilation of accounts and statistical returns according to a unified system.[12]

The pertinent question to pose now is why have the Soviets chosen to plan and control the enterprise performance in terms of profit and profitability measures. The question becomes particularly important in view of the long standing disregard of profit and profitability measures in the Soviet economic administration. We will look for an answer to this question to the Soviets themselves.

Lieberman, in an answer to his own question "Why do I choose profit as the indicator?" answered:

Because profit generalizes all aspects of operation, including quality of output. . . . It is important to note, however, that profit in this case is neither the sole nor the chief aim of production. We are interested above all in products with which to meet the needs of the people and of industry. *Profit is used merely as the main generalizing and stimulating indicator of efficiency, as a device for rating the operation of enterprises.* (Italics mine.)[13]

Professor A. Birman further stated:

Profit expresses and reflects all sides of the organization of the economy. Every achievement or every failure in the organization of labor, the utilization of fixed and working capital, the observance of payment discipline, the quality

[12] A. N. Kosygin, *Ob Uluchshenii Upravleniya Promyshlennostiu, Sovershenstvovanii Planirovaniya i Usilenii Ekonomicheskogo Stimulirovaniya Promyshlennogo Predpriyatiya* [*On improving management of industry, perfecting planning and economic stimulation of industrial production*]. Speech at the Plenum CC CPSU, September 27, 1965 (Moscow: Izdatel'stvo Politicheskoy Literatury, 1965), pp. 24–25.
For a translation of Kosygin's speech see Congress of the United States, Joint Economic Committee, *New Directions in the Soviet Economy* (Washington: U.S. Government Printing Office, 1966), pp. 1033-63. The above quotation appears on p. 1044.

[13] E. G. Lieberman, "Are We Flirting with Capitalism? Profits and 'Profits'," *Soviet Life* (July 1965): 38.

and assortment of output — in short, any step in the work of the enterprise — is immediately expressed in profit with a plus or minus. . . . Profit as an index of economic efficiency appears not only in its absolute form but also in its relative form through the level of profitability. In this capacity, it characterizes the efficiency of production outlays and the degree of utilization of funds — that part of the national wealth which the State has handed over to the given enterprise for its disposal and use.[14]

Gatovskii also commented:

Since profit reflects reduction in production costs, higher labor productivity, savings of productive resources, improvements in production organization, growth of output, etc., it is one of the necessary *value indexes of economic activity of an enterprise,* of the efficiency of its operation. The magnitude of profit and profitability . . . enables the State, to a large extent, to evaluate the operation of a given enterprise.

Since profit is an index of the economic results of an enterprise operation, it functions as one of the *economic stimuli* to improving its operation. This is connected with the entire system of *khozraschet* and assessment of the activity of an enterprise, with the use of profit as a material incentive and the corresponding organization of a bonus system. Profit is the source for making up such an incentive fund as the enterprise fund. Interest in profitability prompts an enterprise to improve its operation.[15]

Similar reasons for the use of profit and profitability as indices of enterprise performance are advanced by other Soviet writers.

Behind the above Soviet rationalization for the use of profit and profitability is a clear desire to depart from the preform partial enterprise success indicators and their dysfunctional aspects. Profit and profitability are seen as all-encompassing measurements of enterprise performance which can be safely used to encourage plan fulfillment and productivity. The analysis of the Akademia Nauk SSSR[16] indicates that the Soviet enterprise management has responded positively to the new incentives and indices of enterprise performance by increasing production of goods and productivity of factors of production and by lowering costs of production. The continued success of the Soviet reforms will depend, at least in part, on how well the central planners can specify the objective function of the Soviet enterprise, that is, on how well the central planners can relate the main objective of the Soviet state so that

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[14] A. Birman, "PribyL' Segodnia" (Profit Today), *Kommunist* 10 (1967): 100–101.

[15] L. Gatovskii, "ROL' Pribyli v Sotsialisticheskoy Ekonomike" [The role of profit in a socialist economy], *Kommunist* 18 (1962): 61.

[16] Akademia Nauk SSR, Institute Ekonomiki, *Pokazateli Planirovaniya i Otsenki Raboty Promyshlennogo Predpriatiya* [*Planned indicators and evaluation of performance of an industrial enterprise*] (Moscow: Izdatel'stvo "Nauka," 1967), pp. 78–207.

enterprises maximize physical output to the inducements offered to the enterprise managers to maximize profits and profitability.

ACCOUNTING MEASUREMENTS OF PROFIT AND PROFITABILITY

The concept of profit used in the two economies is similar in that it implies a surplus product. A. Birman defined profit as "the monetary expression of the value of the surplus product created in the process of socialist production."[17] A widely accepted concept of profit in the United States is that suggested by Hicks. Profit is defined by Hicks as the maximum that could be consumed and still leave an individual or a business entity "as well off" at the end of the period as he or the business entity was at the beginning.[18]

The operational definitions of profit in the two countries are also similar. The Soviets define accounting profit as the difference between the selling price of the goods and their cost.[19] In the United States, Kohler defines accounting profit as "the excess of revenue proceeds, or selling price over related costs."[20]

The approaches to profit measurement are also similar. The three concepts — cost expiration, revenue realization, and revenue-cost matching — include the accounting approaches to the measurement of profit in the two countries.

The general model for the measurement of profitability adopted by the Soviets in 1965 is very similar in form to the model which has been used by the DuPont Company since the early 1920's. It is, therefore, interesting to contrast the DuPont return on investment (ROI) model with the profitability model now in use in the Soviet Union.

Basic DuPont Model

The rate of return on investment is shown in the DuPont model as a product of earnings expressed as a percentage of sales and the rate of turnover, that is:

$$\frac{\text{Net income} \times 100}{\text{Total assets}} = \left(\frac{\text{Net income} \times 100}{\text{Sales}}\right) \times \left(\frac{\text{Sales}}{\text{Total assets}}\right)$$

The DuPont Company has used the rate of return on investment in

[17] A. Birman, "PribyL' Segodnia," p. 100.
[18] J. R. Hicks, *Value and Capital* (Oxford: Clarendon Press, 1946), p. 172.
[19] V. Makarov and M. Belousov, *Teoriya Bukhgalterskogo Ucheta* [*Theory of accounting*] (Moscow: Gosfinizdat, 1955), p. 133.
[20] E. L. Kohler, *A Dictionary for Accountants* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1963), p. 398.

planning and controlling its decentralized operations since 1919. In the 1920's the chart system was developed. The charts related the rate of return on investment of each division to the operating results of respective divisions in terms of the revenue, expense, and investments accounts.[21] Other companies, including General Motors, also began to use the DuPont model at approximately the same time. The concept of return on investment was introduced into the General Motors Company by Donaldson Brown who brought it from the DuPont Company. Alfred P. Sloan stated:

> Mr. Brown developed the concept of return on investment in such a way that it could be used to measure the effectiveness of each division's operation as well as to evaluate broad investment decisions. This concept can be expressed in the form of an equation for computing return on investment, and it is still one of the measures used by the DuPont Company and General Motors to evaluate divisional performance.[22]

The essence of the model lies in the fact that it is affected by all the factors in the business; ". . . hence if one can see how these factors individually bear upon a rate or return, one has a penetrating look into the business."[23]

The model shows that the rate of return can be improved in at least three ways:[24]

1. By increasing the volume of sales, while maintaining the same profit percentage, or by increasing net sales through higher prices;
2. By reducing costs; and
3. By reducing the investment base through improvements in inventory levels, more rapid collection of accounts receivable, economic control of additions to fixed assets, and generally improved asset turnover.

The DuPont Company uses the model systematically in examining the main factors affecting the rate of return by subdividing sales, cost, and investment figures further into their component parts. Care is also taken to differentiate between the performance of divisions and the performance of divisional managers. The components of the rate of return are usually segregated into controllable and noncontrollable.

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[21] See E. I. duPont, de Nemours and Company Inc., *Executive Committee Control Charts* (1959), pp. 30–31.
[22] A. P. Sloan, Jr., *My Years with General Motors* (Garden City, New York: Doubleday and Company, Inc., 1964), p. 141.
[23] Ibid.
[24] M. S. Newman, "Return on Investment, An Analysis of the Concept," *Management Services* (July–August 1966): 15–23.

Performance of divisional managers is evaluated in terms of the factors controllable by managers.

Soviet Measures of Profitability

The planned (actual) profitability of the Soviet enterprise is expressed in two forms:[25]

1. As a general profitability (*obshchaya rentabel 'nost'*) expressed as a ratio of planned (actual) balance profits, that is, total enterprise profits before distributions, to the sum of planned (actual) average value of fixed assets and normed current assets.
2. As an accounting profitability (*raschetnaya rentabel 'nost'*) expressed as a ratio of planned (actual) balance profits reduced by:

(a) Interest payments to the state for the use of fixed assets and current assets.

(b) Fixed rental payments to the state which are in the nature of differential rent extracted from an enterprise from location or similar natural advantages. This is done in an attempt to eliminate noncontrollable factors affecting enterprise performance and in this way put all enterprises on equal footing with respect to variables controllable at the enterprise level.

(c) Interest payments on bank loans to the planned (actual) average annual value of fixed assets and normed current assets.

The measure of planned general profitability is used to evaluate the enterprise performance as a whole. The planned accounting profitability measure is used in the evaluation of the performance of enterprise management and in the computation of deductions from profits for the enterprise incentive funds.

The interesting fact concerning the sales-profit-investment relationship developed in the Soviet Union is its close resemblance to the relationship existing in the DuPont model. Consider, for example, Pavlova's analysis of this relationship. Pavlova states that:

The formula for general profitability of the enterprise can be expressed in the following way:

$$\text{General Profitability} = \frac{\text{Balance profits} \times 100}{\text{Average value of fixed assets} + \text{Average value of normed current assets}}$$

[25] D. S. Molyakov, *PribyL' i Rentabel'nost' Promyshlennogo Predpriyatiya* [*Profit and profitability of the industrial enterprise*] (Moscow: Izdatel'stvo "Finansy," 1967), p. 104.

The new index of profitability is called upon to stimulate the effective utilization of the enterprise assets in general and of the fixed assets in particular. The above formula can be broken down further as follows:

$$\frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Profit} \times 100}{\text{Sales}} = \frac{\text{Sales} \times \text{Profit} \times 100}{\text{Assets} \times \text{Sales}} = \frac{\text{Profit} \times 100}{\text{Assets}}$$

Profitability can, therefore, be expressed as the product of sales per one ruble of assets and profit per one ruble of sales. This means that the higher are the sales per one ruble of assets and the higher is the profit per one ruble of sales, the higher will be the profitability of the enterprise.

Using this relationship it is easy to determine the influence on profitability of each of the indicated factors: change in sales per one ruble of assets and change in profit per one ruble of sales. . . .

The change in profit per one ruble of sales is the result of the influence of the three basic factors: a change in product assortment, reduction in costs and the presence of other items of revenue from non-sale activities. The influence of individual factors can be determined by dividing the profit sum received from each by the value of the respective assets. . . . So, the basic sources of increased profit and profitability of enterprises are: the growth in turnover and the cost reductions. Increase in the absolute sum of profits can also be insured through the growth in sales volume on the basis of expanding production through the introduction of new production capacity.[26]

Pavlova's analysis of the possible improvements in enterprise profitability and those offered by other Soviet writers differ from the DuPont analysis only in that the Soviet profit and profitability cannot be improved through price manipulations and holding gains. Since prices are centrally fixed, they are taken by Soviet managers as parameters in their decision-making. In contrast to the Soviet situation, corporate price policy in the United States is a significant determinant of profits, especially in large corporations which, though subject to the market demand constraints, enjoy considerable discretion in price-setting.

As a special feature of Soviet accounting, profitability measure is the interest charge levied on production assets (fixed and current assets). Prior to the 1965 economic reforms, enterprises received from the state all the assets free of charge. As a result, according to Vasil'eva and Yakovelva:

Enterprises were not interested in the costs incurred in the course of the plan fulfillment, i.e., what production assets were used in the manufacture of goods. Instead of endeavouring to bring into action the internal enterprise reserves, enterprises elected an easy way out — expansion of production through additional and not always economically justified, non-repayable capital grants. . . .

[26] A. Pavolva, "Analyz Prybyli i Rentabel'nost' " [Analysis of profit and profitability], *Finansy SSSR* (September 1967): 85–86.

This also explains the presence at enterprises of considerable amounts of unutilized and uninstalled plant and equipment (1.3 billion rubles) and above norm stocks of materials and goods.[27]

The main reason for the introduction of interest charges on enterprise assets is the incentive effect that such charges are supposed to have on enterprise operations. Since the payments into the enterprise incentive funds are preceded by the obligatory interest payments for the use of assets, differential rent payments, and interest charges on bank loans, it is hoped that enterprises in their efforts to maximize their own material rewards will minimize the obligatory payments, especially interest payments for the use of assets:

> The lower is the payment, the more profit will remain at the disposal of the enterprise for the creation of incentive funds. . . . This stimulates the enterprise not only to fulfill the accumulation plan, but also to raise the effectiveness of production assets utilization . . . to strive for growth in profit. . . .[28]

Originally, the interest was established at 6 percent for enterprises enjoying "normal" level of profitability. This rate corresponded to the minimum efficiency of the existing capital investments. In order to insure the creation of enterprise incentive funds, however, enterprises with low levels of profitability were charged only 3 percent interest on their assets. The initial experience with the interest rate charges on assets has indicated the necessity to apply differential interest rates to individual enterprises. This is explained by the Soviet concern with maladjustments arising from the ". . . deficiencies in pricing and the resulting differences in profitability levels among individual enterprises . . . ,"[29] and the impact of these maladjustments on incentives. Eventually, the Soviets hope to charge a single rate of interest for the use of capital by enterprises.

The interest is charged on the original cost of assets, exclusive of the accumulated depreciation. This is done with the intent to stimulate timely replacement of assets and to induce technical progress in general. To overcome the disincentive effects of interest payments on capital investments, some assets are temporarily exempt from such charges. Included in this category are assets financed from the enterprise development fund and assets financed by the bank loans.

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[27] L. G. Vasileva and N. Ya. Yakovleva, *Plata za Proizvodstvennye Fondy* [*Payment for the production funds*] (Leningrad: Leningrad House of Scientific-Technical Propaganda, 1967), p. 4.
[28] Ibid., p. 6.
[29] Ibid., p. 8.

PROFITABILITY MODELS IN THE TWO ECONOMIES — THEIR ADVANTAGES AND DISADVANTAGES

The general similarity of ROI measures used in the two countries can only be explained in terms of similar information needs of top managements for overall measures of performance of decentralized organizational subunits.

The following are some of the more important advantages of using the rate of return measure:

1. It focuses managerial attention on the relationship between profit and capital; thus it reflects, subject to the use of rational prices in measuring profits and investments, the efficiency with which capital is being used by the enterprise management.
2. It can serve as a goal and provide a broad base for planning and control of enterprise operations.
3. It encourages global rather than local rationality.
4. It is simple to calculate and understand. It is thus operational.
5. It can be used as a ratio in comparing divisions and enterprises of different size and nature.

The most important shortcomings of the ROI are:

1. It reflects only one of the goals of management. Although profit goal is one of the main goals of American management, other goals such as, for example, prestige or power may also be important. These other goals may not be adequately reflected in the ROI measure. In the case of the Soviet Union, profit and profitability are not the main goals of the Soviet leaders. Despite current emphasis on profit and profitability, the Soviet enterprise is still required to maximize physical output. Profit and profitability are held out merely as inducements, that is, personal goals of enterprise managers and not as the goals of the state. It is assumed that by maximizing profit and profitability, that is, by maximizing personal gains, enterprise managers will at the same time maximize the social gains, that is, maximize the output of goods. The validity of this assumption, however, depends on whether the points of maximum profits and maximum output coincide. The Soviet experiences so far indicate a relative absence of conflicts between profit maximization and output maximization objectives. The initial findings of Akademia Nauk SSSR[30] indicate both increases in profits and in profitability and output in enterprises, operating under the reformed condi-

[30] Akademia Nauk SSSR, *Pokazateli Planirovaniya.*

tions. The uncertainty of such a coincidence, however, still exists in the minds of Soviet planners, as can be seen in their preference for output rather than profit maximization.

2. Enterprise efficiency is reflected in the measure only to the extent that the rational prices, that is, competitive market prices, are used in its determination. It is doubtful that the inflexible Soviet industrial prices reflect the scarcities of Soviet economic resources; hence the rate of return on investment does not reflect the economic efficiency of Soviet enterprises. To the extent that this is also true in the United States, the ROI similarly fails to measure the economic efficiency of American enterprises.

3. It cultivates short-range thinking. Frequent turnover of managers in both countries encourages managers to improve current rates of return at the expense of long-run profits. For example, managers can increase annual profits by failing to replace obsolete equipment or by reducing research and developing expenditures.[31]

4. It gives too much emphasis to capital resources in measuring enterprise performance. Innovation, morale, and human resources in general may, on occasion, be more important to the attainment of long-range goals of management than the ROI per se.

Despite its shortcomings, however, the wise use of the ROI is considered to be one of the more useful managerial tools for planning, stimulating, and judging the results of enterprise operations. The Soviets, who have apparently searched for almost a half a century for alternative "success indicators" of enterprise activity, had to settle finally for the old capitalistic concepts of profit and profitability. It appears that the information value of these measures is, at least formally, little affected by the socioeconomic environment in which they are made.

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[31] For examples of this nature, see J. Dearden, "The Case Against ROI Control," *Harvard Business Review* (May–June 1969): 124–35.

The Price Level Adjustment and Accounting Realism: A Case Study of a New Zealand Company

BORIS POPOFF*

Continuing interest in the price level adjustment, as evidenced by the recent recommendation of the Accounting Principles Board of the American Institute of Certified Public Accountants (AICPA) that financial statements restated for changes in the general level of prices be used to supplement the normal financial reports of companies,[1] necessitates a closer look at what a price level adjustment may or may not achieve.

This paper, which is the result of an extensive study conducted by the author on the effects of price level changes on the accounts of a New Zealand Company[2] will attempt to show that: (1) the price level adjustment is not necessarily an improvement on traditional accounting based on unadjusted historic cost; (2) the price level adjustment when applied to the operating statement may produce results which are misleading; (3) there are problems relating to the production of reliable company reports which do not arise from changing prices. The solution

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[1] See *Financial Statements Restated for General Price-Level Changes,* Statement No. 3 (New York: Accounting Principles Board [AICPA], June 1969). Also see "Statements in Quotes," *The Journal of Accountancy* (September 1969): 62–68.

[2] Boris Popoff, "Price Changes and External Company Reports: A Case Study of a New Zealand Company" (Master of Commerce Thesis, University of Otago, Dunedin, New Zealand, 1969).

of these problems may become a necessary precondition for the effective incorporation of general or specific price changes in the financial reports of a company.

THE FUNCTION OF THE COMPANY REPORT

The main objective of the company report is to communicate to interested parties relevant information about the income and financial position of an incorporated business enterprise. While the immediate addressees of the company report are the shareholders, much wider interests in the company report have long been recognized. These wider interests include investors, economists, government agencies and statisticians, financial analysts, prospective entrants into an industry, trade unions, and consumers. The benefits of reliable company reporting, therefore, accrue not only to the present shareholders but to much wider sections of society and in fact to society as a whole. Reliable company reports provide a basis for sound decisions by investors; they help optimize the return on society's resources by directing the flow of capital funds into the most profitable areas of economic activity; they lead to more informed and effective decisions on the part of government in its role as a regulator of the economy; and they help create confidence in the financing of business enterprises and harmonious relations between organized labor and company management. The preparation of reliable company reports, therefore, is an overwhelming social responsibility involving enormous problems of measurement and communication.

THE NATURE AND MEASUREMENT OF CAPITAL AND PROFIT

In a broad business sense, capital may be defined as the amount of material wealth committed to a business enterprise, and profit as the flow of material wealth arising from the use of capital in business operations. The basic principle applied in the measurement of profit, therefore, is that no profit arises until capital has been maintained.

In the preparation of company reports, accountants, as measures of capital and profit, have shown a natural desire for objectivity and certainty since "reliability" implies both of these. Traditionally, accountants have sought a solution to the problems of objectivity and certainty in the principles of historic cost and realization, and this solution probably would have sufficed if prices had not changed. Prices, however, do change; and, as a result, in the context of traditional accounting, capital is maintained in nominal terms only — in terms of the original number of monetary units invested with no reference to the purchasing power

of the original investment or the current cost of the firm's assets. For this reason the amounts of capital and income measured and reported by traditional accounting methods have little, if any, intrinsic economic significance.

Proposals to overcome the limitations of traditional accounting for capital and profit have included the following: (1) the maintenance of the consumer purchasing power of capital — as measured by a cost-of-living index;[3] (2) the maintenance of the general purchasing power of capital — as measured by a general price level index; (3) the maintenance of the investment purchasing power of capital — that is the ability of the firm to buy investment goods as measured by an investment price index;[4] (4) the maintenance of the operating capacity of the firm — that is, no profit be recognized until the current cost of the assets used has been recovered.[5]

In spite of a considerable divergence of opinion which exists as to the nature and measurement of capital and profit in the face of changing prices, there does seem to be a general agreement that the use of current cost in the measurement of operating profit and for the valuation of assets to be included in the balance sheet provides the best measure of a firm's operating efficiency and its long-term economic viability.[6]

THE GENERAL PRICE LEVEL ADJUSTMENT

The general price level adjustment involves the restatement of financial statements in dollars of comparable purchasing power on the basis of a general price level index. The advantages of a price level adjustment may be summarized as follows: (1) it removes one of the objections to the traditional reporting of capital and income by restating the reports in dollars of the same purchasing power; (2) it does not violate the principles of historic cost and realization; and (3) it can be applied objectively on the basis of an agreed general price level index.

A belief has also been expressed that the application of a general

[3] This concept of capital was favored by H. W. Sweeney in *Stabilized Accounting* (New York: Holt, Rinehart and Winston, Inc., 1964), p. 4.

[4] E. S. Hendriksen, *Accounting Theory* (Homewood, Illinois: Richard D. Irwin Inc., 1965), p. 180.

[5] R. S. Gynther, *Accounting for Price Changes — Theory and Practice* (Melbourne, Australia: Accountants Publishing Company, Ltd., 1968), pp. 9–11. Also R. S. Gynther, *Accounting for Price Level Changes: Theory and Procedures* (Oxford, England: Pergamon Press Ltd., 1966).

[6] See Edwards' and Bell's arguments in favor of their concept of "Business Profit" in E. O. Edwards and P. W. Bell, *The Theory and Measurement of Business Income* (Berkeley: University of California Press, 1961).

price level adjustment for tax purposes would make taxation more equitable.[7]

The price level adjustment, however, being a restatement of historic cost, has a serious limitation in the fact that it fails to account for specific price changes, reflecting current cost by coincidence rather than by design. In spite of this limitation, the price level adjustment is regarded as an important step toward greater realism in accounting for capital and profit. In this respect the recommendation of the Accounting Principles Board of the AICPA that financial statements restated for changes in the general level of prices be used as supplements to the normal financial reports of companies is an important landmark in the continuing development of company reporting.

OBJECTIVES OF THE CASE STUDY

The main objectives of this case study were to examine the effects of changes in the general level of prices on published company reports, in particular on reported profit, shareholders' funds, and company profitability, and to test the validity of adjusting company reports for changes in the general level of prices by referring, as far as possible, to replacement costs — especially the replacement cost of fixed assets at the end of the period covered by the study.

The firm chosen for the study was the Dominion Fertiliser Company, Limited, at Dunedin, New Zealand. There were a number of factors which made this company particularly well suited for the objectives in mind. The company was launched in 1929 (its first full year of operations being the year ended March 31, 1932), and its operations had covered both the depression of the 1930's and the period of inflation which began with the outbreak of the Second World War and which continues to this day. The company had maintained a heavy investment in depreciable assets, and during the period covered by the study — the twenty-six years from 1931 to 1956 — it had reported its profits and financial position on the basis of historic cost.[8] The company had also been subject to strict price control.

The problems of producing reliable company reports in the face

[7] Ibid., p. 23. See also R. C. Jones, *Price Level Changes and Financial Statements: Case Studies for Four Companies* (Iowa City: American Accounting Association, 1955), pp. 25, 178.

[8] In his address to the shareholders at the annual meeting of the company in June 1965, the company's Chairman of Directors, Sir Carl V. Smith, drew attention to the fact that while the balance sheet figure for plant, machinery, and fittings was $260,000, their indemnity value for insurance purposes was $1,782,000, and their replacement cost $2,260,000.

of changing prices have tended to dominate accounting thought in recent years and, perhaps, have overshadowed other important problems of accounting for capital and income. Two of these problems concern the proper accounting for depreciation and the cost of major maintenance and renewals. Price changes are only one aspect of these problems. Proper accounting for depreciation requires the selection of methods and rates which will prove realistic in the long run. Proper accounting for the cost of major maintenance and renewals requires a realistic apportionment of this cost between capital and income, especially where the work carried out has removed to some degree the wear and tear of depreciable assets or has offset the effects of obsolescence by the incorporation of technological improvements into existing assets. In practice, these problems will not always be treated as purely accounting problems concerned above all with the proper matching of cost with revenue. Tax considerations would normally exert a strong influence on the selection of methods and rates of depreciation or on any decision regarding the accounting treatment of major maintenance and renewals expenditure; caution and conservatism would also leave their mark on the accounts.

Because the Dominion Fertiliser Company had maintained a heavy investment in depreciable assets and had incurred substantial maintenance and renewal costs, its accounts provided an opportunity to study company reporting not only in relation to changing prices but also in relation to the broader problems of accrual accounting — in particular the problems of proper accounting for depreciation and the cost of major maintenance and renewals.

THE PRICE LEVEL ADJUSTMENT MODEL

The following is a brief description of the price level adjustment model used in the study:

1. Regarding the operating statement, it was assumed that:

(a) Sales, income from investments, purchases, and costs (other than depreciation) had accrued evenly during the year and that, therefore, they were expressed in average dollars for the year.

(b) Ending inventories of raw materials, work in process and finished goods were always valued at "cost" on a "first-in, first-out" basis.

(c) The acquisition or manufacturing cost of inventories at the end of each accounting year was incurred in dollars of the last quarter of the year.

(d) The provisions for taxation and dividend were created in terms of end-of-year dollars.

2. Regarding the balance sheet, the following assumptions were made:

(a) Money received from shareholders on account of issued capital were in average dollars of the year of receipt.

(b) Acquisitions and sales of fixed nonmonetary assets took place in average dollars.

(c) Changes in monetary assets and liabilities (other than provisions for taxation and dividends) occurred in average dollars.

(d) Taxation and dividends were paid in average dollars in the year following the balance date.

As the period covered by this study extended back to the formation of the company, no arbitrary "aging" of the company's depreciable assets was necessary in order to adjust the charges for depreciation. The cost of the assets and the amount of depreciation written off were adjusted according to the year in which the assets were acquired and the price level adjustment model described above.

The methods and rates of depreciation used by the company were accepted as reasonable. One of the main objectives of this study was to determine the extent to which actual company reports may be distorted by price level changes. To have applied in the adjusted accounts different methods and rates of depreciation from those used by the company would have invalidated the comparison between adjusted and unadjusted accounts.[9]

The price level adjustment was made on the basis of the New Zealand Consumer Price Index (see Appendix 1) which is probably the best available measure for changes in the purchasing power of the New Zealand dollar. The index is compiled by the Department of Statistics which publishes quarterly figures and annual average figures for the year ended December 31. As the balance sheet date of the Dominion Fertiliser Company is March 31, the index figures used in the price level adjustment were the quarterly figures published by the Department of Statistics, the average annual figures for the year ended March 31 derived from the quarterly figures, and estimated figures of the index as of March 31. The index figures as of March 31 were estimated as the average of the figures for the March and June quarters.

The actual price level adjustment was made as follows: (1) All revenues and costs in the operating statement of the company were

[9] This treatment agrees with the Accounting Principles Board's recommendation on general price level changes, *Financial Statements,* paragraph 28, p. 13.

converted into dollars as of March 31 of the particular year in order to determine the adjusted profit of the company. (2) All nonmonetary items in the balance sheet, including the shareholders' equity, were restated in dollars as of March 31 of that year. The shareholders' equity was then adjusted for any profit or loss carried forward from the operating statement. (3) Price level gains and losses on monetary accounts were calculated and the adjusted balance sheet was balanced. (4) Both the reported and adjusted figures were then converted into March 31, 1965, dollars. This was done in order to make effective long-term comparisons. Unless otherwise stated, all figures, reported and adjusted, quoted later in this paper are in March 31, 1965, dollars.

RESULTS OF THE PRICE LEVEL ADJUSTMENT

Exhibit 1 compares the reported and adjusted figures for profit, and the nominal and adjusted rates of taxation, profit distribution, and the return on shareholders' equity. The comparisons generally confirm the observations made by other writers in this field.[10] In times of a rising price level traditional accounting will: (1) overstate profit through an understatement of costs; (2) overstate the rate of return through an overstatement of profit and an understatement of the shareholders' equity; (3) understate the rate of profit distribution; (4) understate the effective rate of taxation.

In times of relatively high inflation (for example, the postwar period from 1947 to 1956) the discrepancies between reported and adjusted profits will increase.

The discrepancies between the reported and adjusted figures in the postwar period as shown in exhibit 1 are significant: (1) the reported net trading profit before tax was overstated by 13.4 percent and the final net profit after tax by 30.1 percent; (2) the nominal rate of taxation was 57.1 percent compared with an adjusted rate of taxation of 63.4 percent when price level losses of monetary accounts are excluded from the figure of taxable profit and 67.2 percent when price level losses on monetary accounts are included; (3) the reported rate of profit distribution of 61 percent compares with an adjusted rate of profit distribution of 79.4 percent excluding price level losses on monetary accounts, and 93.5 percent if price level losses on monetary accounts are included; (4) the reported average rate of return was 9.4 percent com-

[10] In particular R. C. Jones, *Price Level Changes* and *Effects of Price Level Changes on Business Income, Capital and Taxes* (Iowa City: American Accounting Association, 1956).

Exhibit 1.

Comparison of Reported and Adjusted Figures for Net Profit and Rates of Taxation, Profit Distribution, and Return on Shareholders' Equity (In New Zealand Dollars)

	Reported	*Adjusted*	*Difference*	
*Net Trading Profit before Tax**				
Total 1932–1956	$3,443,500	$3,173,200	–$270,300	–8.5%
Total 1947–1956	1,826,700	1,611,200	–215,500	–13.4
*Final Net Profit after Tax**				
Total 1932–1956	1,721,000	1,462,900	–258,100	–17.6
Total 1947–1956	884,100	679,300	–204,800	–30.1

	Reported	*Adjusted**	*Adjusted***
Rate of Taxation			
Average 1932–1956	54.9%	58.9%	62.1%
Average 1947–1956	57.1	63.4	67.2
Rate of Profit Distribution			
Average 1932–1956	70.2	82.6	92.5
Average 1947–1956	61.0	79.4	93.5
*Rate of Return****			
Average 1932–1956	6.3		4.5
Average 1947–1956	9.4		5.3

* The figures *exclude* price level gains/losses on monetary accounts.
** The figures *include* price level gains/losses on monetary accounts.
*** Final net profit after tax as a percentage of the shareholders' equity.

pared with an adjusted rate of return of 5.3 percent — an overstatement of the reported rate of return of 88 percent of the adjusted figure.

ANALYSIS OF THE PROFIT DISCREPANCY

The difference between the reported and adjusted figures for profit of $270,300 for the twenty-five-year period from 1932 to 1956 and $215,500 for the ten-year period from 1947 to 1956 were analyzed as follows:

	1932–1956	*1947–1956*
Understatement of depreciation	$115,600	$111,700
Inventory adjustment	244,200	137,200
	$359,800	$248,900
Less net surplus on the adjustment of sales, purchases, and current expenses	89,500	33,400
Profit overstated	$270,300	$215,500

In terms of percentages, the total depreciation for the twenty-five-year period was understated by 9.3 percent and in the ten-year postwar period by 18.9 percent. While these differences are significant, they are smaller than one would have expected in view of the great difference between the balance sheet value and replacement cost of the company's plant disclosed by the chairman of directors in 1965.[11]

The reasons for these somewhat less than expected discrepancies may be summarized as follows: (1) The fall in the general level of prices in 1932, 1933, and 1934 and the continuing effect of this fall resulted in the company writing off more depreciation than would have been necessary under a price level adjustment in the years from 1932 to 1938. (2) Price control during the Second World War kept official consumer prices and, therefore, the Consumer Price Index relatively stable. (3) By the time the postwar inflation began to take place, the larger part of the cost of plant acquired in 1930 and 1931 had been written off on the basis of the diminishing balance method of depreciation. (4) Postwar tax legislation provided more generous depreciation allowances on plant including accelerated depreciation. As a result, heavy depreciation charges were made in the early years of use of plant acquired in the postwar period, so the relative importance of the price level adjustment of depreciation in the postwar period was reduced. (5) The scrapping of prewar plant and the acquisition of new plant "diluted" the historical cost of the company's depreciable assets in relation to the current price level.

Another somewhat unexpected outcome of the price level adjustment was the big impact the restatement of inventories had on the adjusted profit. In fact, as can be seen from the above figures, the restatement of inventories had a bigger impact on adjusted profit than the adjustment of the charge for depreciation. This threw doubt on the validity of adjusting inventories for changes in the general level of prices. This question will be discussed further later in this paper.

SHAREHOLDERS' EQUITY

The reported shareholders' equity as of March 31, 1956 (directly converted into March 31, 1965, dollars), was $1,009,300. The adjusted shareholders' equity at the same date was $1,194,500. The reported shareholders' equity as of March 31, 1956, was therefore understated by $185,200 or 15.5 percent. A long-term trend comparison of the shareholders' equity from 1931 to 1956 as reported by the company with the

[11] See footnote 8.

annual adjusted figures revealed discrepancies of up to 62 percent. More significant, while the reported figures showed an upward trend during the entire period, the adjusted figures showed a downward trend from 1939 to 1954.

PRICE LEVEL GAINS / LOSSES ON MONETARY ACCOUNTS

During the period covered by the study, the Dominion Fertiliser Company had carried substantial net monetary assets on which significant price level losses were incurred. In total the company suffered a net loss on its monetary accounts of $206,900 which represents 5.8 percent of its total net trading profit before tax and 14.1 percent of its total final net profit after tax.

The preceding is a summary of the analysis of the reported results of the Dominion Fertiliser Company only in relation to changes in the general level of prices, and only as far as these changes are measured by the New Zealand Consumer Price Index. Because of the importance of current costs in the measurement of capital and profit in real terms and because doubts have been expressed as to the relevance of applying a general price level index like the Consumer Price Index to the specific situation of the individual firm, the next step in the case study was to examine critically the validity of the price level adjustment itself for the measurement of capital and income — at least as far as the Dominion Fertiliser Company was concerned.

THE PRICE LEVEL ADJUSTMENT AND ACCOUNTING REALISM

To what extent can a price level adjustment, such as the one applied in this study, be regarded as an improvement on the traditional accounting for capital and profit in the sense that it reflects current costs more truthfully?

The price level adjustment applied in this study has reflected current costs only to the extent that the prices of the cost items included in the calculation of profit and the prices of the company's assets have moved in line with the New Zealand Consumer Price Index.

As discussed earlier, the main factors causing the differences between reported and adjusted profit have been the inventory adjustment and the adjustment of the charge for depreciation. Both of these items will now be reexamined with particular reference to replacement cost.

THE INVENTORY ADJUSTMENT

The main item in the production cost of the phosphatic fertilizers

which constitute the principal output of the Dominion Fertiliser Company is the cost of raw materials — in particular, phosphate rock and sulphur. Under the price level adjustment model used in the study, ending stocks of raw materials, finished production, and work in process were assumed to have been acquired in the average dollars of the last quarter of the financial year (the quarter ended March 31) and to have been always valued at cost.

The effect of the inventory adjustment on reported profit is illustrated by the following example from the adjusted accounts of the Dominion Fertiliser Company. In the year ended March 31, 1948, the reported profit was overstated by $36,623 of which $13,487 was accounted for by the inventory adjustment. In that year the opening stocks of raw materials and finished goods amounted to $155,941, and the closing stocks were valued at $569,840. The Consumer Price Index during the year increased from 627 and 637 in the June and September quarters to 688 and 685 in the December and March quarters. At the same time the estimate of the index as of March 31 increased from 625 on March 31, 1947, to 689 on March 31, 1948. As a result of the price level adjustment, the debit to the profit and loss account for opening stock was increased by 10.24 percent or $16,792, while the credit for the much increased closing stock was increased by 0.58 percent or $3,305, resulting in a net reduction of the adjusted profit of $13,487.

The measurement of operating profit in terms of replacement cost would require the recognition of changes in the prices of raw materials as they occurred, the recording of holding gains and losses, the valuation of stocks of raw materials, finished production, and work in process on the basis of current replacement cost, and the matching against revenue of the current cost of the goods sold. Exhibit 2 shows that in the period from 1947 to 1960 the New Zealand Consumer Price Index rose steadily while the prices of phosphate rock and sulphur fluctuated widely. To what extent then can one regard the price level adjustment as reflecting the current cost of sales? This question becomes even more pertinent in view of the fact that the sudden increases in the Consumer Price Index in the December quarter of 1947 was caused by a removal of some food subsidies and by an increase in railway charges, neither of which have any bearing on the cost of phosphate rock and sulphur to the company.

The inventory adjustment for the year ended March 31, 1948, resulted in an increase of $16,792 in the debit for the opening stock of raw materials, finished goods, and work in process and an increase of $3,305

Exhibit 2.

Comparison of Price Relatives for Phosphate Rock and Sulphur with the New Zealand Consumer Price Index (*Base 1955 = 1,000*)

Year	*Phosphate Rock*	*Sulphur*	*New Zealand Consumer Price Index*
1947	1,631	—	624
1948	1,492	—	659
1949	1,219	703	690
1950	915	594	709
1951	768	766	763
1952	1,303	1,125	851
1953	1,130	1,047	901
1954	1,000	1,000	944
1955	1,000	1,000	982
1956	1,069	1,023	1,005
1957	1,208	1,063	1,042
1958	1,331	1,078	1,064
1959	1,147	900	1,122
1960	1,147	788	1,148

in the credit for the closing stocks of the same. However, in the year ended March 31, 1948, the price of phosphate rock (the company's main raw material) fell by 9.3 percent. If the stock on March 31, 1947, had been valued at cost, the effect of the stock adjustment would have been to recover from revenue the original cost of the opening stock in terms of general purchasing power. In this sense, the effect of the stock adjustment has been to restate the shareholders' equity for changes in the general purchasing power of the dollar before recognizing any profit for the year. The same reasoning would apply if the stock on March 31, 1947, had been written down to replacement cost because of a fall in the price of raw materials. While this stock adjustment is necessary under the price level adjustment model used in the study, it has been made by charging against revenue as operating costs what are essentially holding losses. If, on the other hand, the prices of raw materials instead of falling had increased at a rate higher than that of the New Zealand Consumer Price Index, the stock adjustment would not have recognized the resulting holding gain as a gain distinct from operating profit.

From the above discussion, it can be seen that the restating of inventories for changes in the general level of prices may produce profit figures of dubious informative value.

DEPRECIATION AND MAINTENANCE

It is generally true to say that indices dealing with changes in the cost of capital assets, such as plant or cost of buildings, will show a greater stability of trend and will tend to move more in line with a general price level index like the Consumer Price Index than indices dealing with prices of raw materials such as phosphate rock or sulphur. This is well illustrated in Appendix 2 which shows a remarkable similarity of behavior in general consumer prices, plant and equipment costs, and building and construction costs.

For this reason one would expect the price level adjustment in respect to depreciation to result in a much closer approximation of current cost than the price level adjustment in respect to inventories. The writing off of realistic amounts for depreciation, however, creates special problems not all of which relate to price changes.

One of the difficult problems of depreciation is to select, in the face of uncertainty, methods and rates which will fairly reflect the pattern of future cost incurrence. This is a difficult thing to do under any circumstance. In an actual situation the question of depreciation will not always be treated purely as an accounting problem involving essentially the proper matching of cost with income. Taxation considerations often play a very important part in deciding what methods and rates of depreciation to adopt. Until 1964 New Zealand companies were required to write off in their accounts at least as much depreciation as they were claiming for tax purposes — including both ordinary and special depreciation. For this reason, there is little doubt that companies were at times compelled to write off depreciation well in excess of the amounts they considered adequate. On the other hand, the amount of depreciation considered adequate by the company is bound to be influenced by inherent conservatism or by caution in the face of the real risk of obsolescence. In the case of a price-controlled company, the problem is likely to be further complicated by a desire to show high costs for price-fixing purposes while at the same time reporting "adequate" profits in order to maintain a good standing among the investing public.

The cost of major maintenance and renewals poses particularly difficult problems of accrual accounting, problems which do not arise from changes in prices. For proper capital/income accounting it is important

Exhibit 3.

Postwar Maintenance and Renewal Costs (In March 31, 1965, Dollars)

1947	$ 22,211	1951	$102,928	1955	$152,792
1948	33,599	1952	159,510	1956	178,774
1949	46,913	1953	73,762	Total	$963,528
1950	71,467	1954	121,572		

to decide on the extent to which such costs are properly chargeable to income as a current expense and the extent to which they are of a capital nature and should be carried forward to be recovered by way of depreciation in future periods. Again tax considerations will play an important and, probably, decisive part in deciding on the accounting treatment of major maintenance and renewal costs.

Most firms are faced at one time or another with making a decision between replacing some fixed assets or making do with existing assets by carrying out major renewal work. In price-controlled industries the carrying out of renewal work, especially where the cost is immediately deductible for tax purposes, may often be a more attractive proposition than the replacement of assets at costs which, because of price control, may prove to be uneconomic. In the postwar period from 1947 to 1956 the Dominion Fertiliser Company carried out substantial maintenance and renewal work, the cost of which is detailed in exhibit 3.

While the large maintenance expenditure in the postwar period was partly due to the deferring of maintenance during the years of the Second World War, there is little doubt that the renewal work carried out did involve technological improvements with a resulting increase in the productive capacity and efficiency of the plant. The following figures are relevant in this respect. In the period after the Second World War the annual productive capacity of the firm increased from about 50,000 tons of fertilizer to about 120,000 tons — an increase of 70,000 tons or 140 percent. This increase in productive capacity was achieved partly by the acquisition of additional depreciable assets costing $569,000 (compared with the cost of the original depreciable assets of $1,176,000) and partly at least as a result of a "maintenance and renewals" expenditure of $963,528.

THREE VERSIONS OF THE BALANCE SHEET COMPARED

The latter part of this paper attempts to answer the question: how realistic is the price level adjustment when related to current cost? An attempt will be made to answer this question by examining the three

versions of the company's balance sheet as of March 31, 1956, which are compared in exhibit 4. The comparison involves the reported balance sheet, the balance sheet adjusted for price level changes, and a balance sheet adjusted for price level changes but which includes the buildings at valuation. In the third balance sheet the net amount for fixed assets of $1,200,000 consists (in round figures) of $980,000 for buildings and $220,000 for plant. These figures were derived as follows.

Buildings. The company revalued its buildings in 1957 on the basis of their replacement cost as of March 31, 1954, less depreciation. The net valuation of the buildings together with additions in the years ended March 31, 1955 and 1956, less depreciation for the two years, were converted into March 31, 1965, dollars in accordance with the price level adjustment model in order to get a valuation of the buildings as of March 31, 1956.

Plant. The plant is included at its net adjusted book value; for example, at the figure it is shown in the second balance sheet.

The first major discrepancy between the reported and adjusted figures is in the amount for paid-up capital with the reported figure being almost half of the figure adjusted for changes in the general purchasing power of money. The published balance sheet reported a figure for accumulated profit of $393,800. This compares with an adjusted figure of $167,200 which, when offset against the accumulated loss on monetary items, gives a net accumulated loss of $39,700. The reported net book value of the fixed assets is also grossly understated in comparison with their adjusted book value.

The discrepancies between the balance sheet adjusted for price level changes and the balance sheet after the revaluation of buildings are even more significant. While the adjusted balance sheet shows a net accumulated loss of $39,700, the balance sheet after the revaluation of the buildings shows a surplus of $716,600 and fixed assets at a value very much higher than their adjusted value.

The surplus on the revaluation of buildings was (in round figures) $756,000 and has been calculated as follows:[12]

Adjusted historic cost of buildings	$812,000
Less adjusted depreciation	588,000
Adjusted book value	$224,000
Buildings at valuation	980,000
Surplus	$756,000

[12] In March 31, 1965, dollars.

Exhibit 4.

Reported and Adjusted Balance Sheets as of March 31, 1956 (In March 31, 1965, New Zealand Dollars)

	Reported Balance Sheets		*Adjusted Balance Sheet*		*Adjusted Balance Sheet after Revaluation of Buildings*	
Paid-up capital		$ 615,500		$1,234,200		$1,234,200
Accumulated profits		393,800		167,200		716,600
		1,009,300		1,401,400		1,950,800
Accumulated loss on monetary accounts		—		206,900		—
Shareholders' equity		$1,009,300		$1,194,500		$1,950,800
Current liabilities						
Sundry creditors	55,000		55,000		55,000	
Provision for taxation	61,600		61,600		61,600	
Provision for dividends	216,600		216,600		216,600	
		333,200		333,200		333,200
		$1,342,500		$1,527,700		$2,284,000
Fixed assets	887,300		1,453,300		—	
Less provision for depreciation	619,800		1,009,600		—	
		267,500		443,700		1,200,000
Investments						
Shares in companies	3,100		9,900		9,900	
Monetary investments	292,000		292,000		292,000	
		295,100		301,900		301,900
Current assets						
Inventories	316,500		318,700		318,700	
Sundry debtors	349,200		349,200		349,200	
Bank	114,200		114,200		114,200	
		779,900		782,100		782,100
		$1,342,500		$1,527,700		$2,284,000

If we accept the written-up figure as valid, the surplus on revaluation may be explained in terms of excess depreciation written off, renewals, and real capital gains as follows:

1. Excess depreciation. The depreciation provided for on the writing up of the buildings to replacement cost was approximately 26 percent of the written-up value. As the buildings had already been in use for twenty-five years and had depreciated during this time at rates of 2 percent, 3 percent, and 4 percent on cost, it is obvious that on the revaluation of the buildings it was considered that the depreciation written off in the past had been excessive.

The excess depreciation written off may be estimated as follows:

Depreciation written off (adjusted for price changes)	$588,000
Depreciation allowed on revaluation (26 percent of $812,000)	211,000
Excess Depreciation	$377,000

2. Balance of surplus. The balance of the surplus of $379,000 is probably due to the maintenance and renewals expenditure in the postwar period, of which approximately $150,000 related to buildings and to capital gains on the replacement cost of this particular type of building.

While the comparison of the indices for consumer prices and construction costs from 1950 to 1964 seems to rule out any significant capital gains on the replacement cost of buildings, it should be noted that the buildings were erected during a period not covered by the index of building and construction costs and that their cost may have been affected by special conditions prevailing during the time of the depression or by special factors relating to this particular type of building. On the whole it appears that the larger part of the surplus is of a revenue nature.

It should also be stressed that the valuation of the plant at adjusted book value in the third balance sheet in exhibit 4 is probably significantly understated in relation to current replacement cost, especially in view of the accelerated depreciation written off in the postwar period and the maintenance and renewal work carried out on plant in the postwar period to the total cost of an approximate $800,000.

CONCLUSIONS — THE VALIDITY OF THE PRICE LEVEL ADJUSTMENT

1. As far as the accounts of the Dominion Fertiliser Company are con-

cerned, the price level adjustment, while resulting in a more realistic presentation of the total of the shareholders' equity and the value of the company's fixed assets, has fallen far short of accounting for capital and profit in terms of current cost. In fact, adjusting the operating statement for changes in the general level of prices may produce results which are definitely misleading, for example, the year ended March 31, 1948.

2. The price level adjustment, being a restatement of historic cost, does not provide a solution to some of the difficult problems of accrual accounting — the problems of inventory valuation, depreciation, and the accounting treatment of the cost of major maintenance and renewals.

3. Tax considerations play a very important part in the accounting treatment of certain cost items such as the cost of major maintenance and renewals, the valuation of stocks, and the selection of methods and rates of depreciation. The distortions in published company reports caused by tax considerations will be carried through into a set of accounts adjusted for price level changes. It is important to note in this respect that the Dominion Fertiliser Company has made a significant undisclosed investment in fixed assets by way of a major maintenance and renewals expenditure which has been written off against current revenue.

4. In the interests of good accounting it would be desirable for the rules applied in the preparation of external company reports to be made completely independent of the rules applied in the measurement of taxable income, without any loss of tax advantages to the firm. Had this been the case in the past, it is likely that the price level adjustment applied to the accounts of the Dominion Fertiliser Company would have produced more realistic results.[13]

5. Accounting conservatism could also have undesirable effects on published company reports. These effects can be removed only by changes in accounting attitudes and not by adjusting accounts for changes in the general level of prices.

It has not been an objective of this study to examine the question of price control in relation to the fertilizer industry in New Zealand.

[13] It is worthy of note that the New Zealand Land and Income Tax Amendment Act of 1968 has removed the requirement that at least equivalent depreciation must be written off in the accounts of a firm in order for the full depreciation allowance to be claimed. The effect of the new provisions is to make the amount claimed for tax purposes fully independent of the amount of depreciation written off in the financial accounts of the firm.

To have attempted to draw conclusions on the basis of one firm only would have been unwise — a much broader study of the industry would have been necessary. There is no doubt, however, that price control based on historic cost will work to the disadvantage of the firm in times of rising prices. On the other hand, it may be argued that generous taxation allowances in respect of the cost of major maintenance and renewals may offset and, perhaps, more than offset any disadvantages arising, for example, from measuring the cost of depreciation on the basis of historic cost. It may be pointed out that the larger part of the surplus on the writing up of buildings is of a revenue nature and is, therefore, equivalent to retained profits. Further, there seems to be little doubt that a considerable additional surplus may accumulate as a result of renewal expenditure on plant. While these counter arguments may be accepted as having some validity, there is the more fundamental fact that real profits accrue only after the maintenance of capital has been provided for, and historical dollars are not a fair measure of this capital. There is also a need for the recognition of current costs in price setting if economic factors are to be allowed to play their proper role in the allocation and use of community resources.

The major casualty of the present situation is the company report as a reliable document dealing with a firm's operating results and financial position. The factors causing the damage are numerous: changing prices, a dollar of unstable value, taxation constrictions, a natural desire to reduce or delay tax payments, conservatism in facing an uncertain future, an oversimplified accounting treatment of the complex problems of depreciation and the cost of major maintenance and renewals, action and reaction in connection with the regulation of prices by an outside body, and a desire to show profit in line with what is expected without at the same time upsetting the price tribunal or attracting excessive taxation.

Although this study has dealt with the financial statements of one company only, the conclusions drawn from it will be relevant to some degree at least to the financial statements of most companies. The problem of realism in accounting goes beyond accounting for general or even specific price changes; it is a problem which is unlikely to respond to a formula solution — in the foreseeable future at least.

Appendix 1.

The New Zealand Consumer Price Index Average Figures Years Ended March 31 (Base 1955 = 1,000*)

1930	528	1942	570	1954	944
1931	511	1943	591	1955	982
1932	471	1944	602	1956	1,005
1933	431	1945	613	1957	1,042
1934	422	1946	620	1958	1,064
1935	430	1947	624	1959	1,122
1936	445	1948	659	1960	1,148
1937	463	1949	690	1961	1,159
1938	493	1950	709	1962	1,184
1939	505	1951	763	1963	1,212
1940	531	1952	851	1964	1,238
1941	552	1953	901	1965	1,287

* The base year is the year ended December 31, 1955. As the figures listed are for the years ended March 31, the figure for 1955 does not equal exactly 1,000.

Appendix 2.

Comparison of the New Zealand Consumer Price Index with Indices of Plant and Equipment and Building and Construction Costs* (Base 1955 = 1,000)

Year	*Plant and Equipment Costs*	*Building and Construction Costs*	*New Zealand Consumer Price Index*
1950	696	691	709
1951	745	772	763
1952	865	863	851
1953	920	914	901
1954	942	961	944
1955	1,000	1,000	982
1956	1,012	1,046	1,005
1957	1,033	1,069	1,042
1958	1,064	1,102	1,064
1959	1,080	1,127	1,122
1960	1,118	1,115	1,148
1961	1,151	1,135	1,159
1962	1,182	1,160	1,184
1963	1,191	1,180	1,212
1964	1,213	1,198	1,238

* *Indexes of Costs of Investment Goods, 1949–50 to 1963–64,* Publication No. 26 (Canterbury, New Zealand: Agricultural Economics Research Unit, Lincoln College, 1966).

A Reexamination of the Going Concern Postulate

S. C. YU*

Ever since 1955,[1] growing numbers of accountants, especially those in academic circles, have become impatient with conventional accounting. Attacks on generally accepted accounting principles seemingly originate from all quarters. One type of attack is that directed at the validity of basic accounting postulates, and the *traditional* version of the going concern proposition has become a natural target. In 1968, papers on the going concern concept by Robert R. Sterling and James M. Fremgen appeared in *The Accounting Review*.[2] Both writers strongly argued that the going concern was not a relevant concept upon which accounting principles rested. Sterling even suggested that (as an alternative) we should purge this concept.[3] In addition, some practitioners are beginning to complain of the unrealistic nature of the going concern assumption

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[1] The year 1955 is somewhat arbitrarily chosen. Its selection does have some relevance, however, to the great debate on the structure of accounting theory between Professors A. C. Littleton and R. J. Chambers, ignited by the latter's "Blueprint for a Theory of Accounting," *Accounting Research* (January 1955): 17–25, which the author believes has had a major impact subsequently upon accounting thinking.

[2] Robert R. Sterling, "The Going Concern: An Examination," *The Accounting Review* (July 1968): 481–502; and James M. Fremgen," The Going Concern Assumption: A Critical Appraisal," *The Accounting Review* (October 1968): 649–56.

[3] Ibid., p. 497.

underlying financial statements.[4] These criticisms are useful in that we at last are giving attention to this central proposition. Previously, one found little extensive discussion of the continuity concept of the accounting entity, except in the work of Reed K. Storey.[5] This concept may have been taken for granted. In any event, this seemingly obvious proposition has blurred our theoretical vision for many years.

One may suggest that a review of the historical development of the going concern concept would clarify its current confused status as a postulate of accounting. Such an effort would, of course, identify its original meaning and intended use. The author believes, however, that such an approach would not be very beneficial in the search of a theory structure, particularly from the viewpoint of providing relevant accounting information. The traditional version of the going concern, as will be noted shortly, is a static one which is deficient in depicting the socioeconomic activities of specific entities. What we need is a much larger concept. The going concern may or may not be such a concept. Quite possibly, however, the going concern may have additional dimensions which we have hitherto failed to detect or explain. The major purpose of this paper is to reexamine this concept by identifying its constitutive and operational meanings and by explaining its implications. Hopefully, this study will provide a better understanding of the concept and be able to conclude whether or not it is a relevant postulate of accounting.

THE NATURE OF ACCOUNTING POSTULATES

Any attempt of theory construction must ultimately come to terms with issues dealing with the foundations of knowledge. As a branch of learning, therefore, the accounting discipline cannot escape the fundamental tenets of epistemology and methodology. This means that an exposition of the going concern postulate requires first an explicit identification of the nature and meaning of basic propositions and their relevance to a theory system. Although such a discussion would require, at least, a separate paper, several points directly related to accounting postulates need to be noted briefly.

First, unlike mathematics and logic, accounting is not a *pure* subject and, accordingly, its propositions cannot be a priori or analytic. In this

[4] Arthur Andersen and Company, *The Postulate of Accounting — What It Is, How It Is Determined, How It Should Be Used* (Chicago: Arthur Andersen and Company, 1960), pp. 18–20.

[5] Reed K. Storey, "Revenue Realization, Going Concern and Measurement of Income," *The Accounting Review* (April 1959): 232–38.

respect, we agree, in general, with modern empiricists that analytic propositions are tautologies. By and large, accounting postulates are synthetic propositions which cannot be completely devoid of empirical contents, nor can they be self-evident truths which can be known immediately. The notion, "self-evident," has been unduly emphasized in the discourse of accounting postulates. The history of science shows that self-evident propositions often become very questionable ones. Second, a postulate may be assigned a high or low empirical content. This is the theorist's privilege and decision. Although a posteriori or synthetic propositions are based upon past and present instances which provide us with a foundation for anticipating future experience, the reliance on empirical correspondence is not a guarantee. It is true that we cannot learn from the future which does not exist, and that we must respect a great deal of the past, from which we hope to ascertain our present position so that we can continue. In this respect, however, the past may not be sufficient to provide us with all the essential information that we would desire. In a sense, we are caught between the past and the future. This is a dilemma, and there is no satisfactory solution to the situation. Human knowledge is always probable, and we may have to bear the so-called inductive risk in knowledge-acquisition. In addition, certain arguments cannot be resolved on strictly empirical grounds. (For example, do firms maximize profits? If so, when?)

Third, although, in general, we reject analytic propositions, once postulates are accepted as valid, they must be methodologically regarded as a priori. This is necessary because we need a starting point. The process of proposition verification is an endless one — one set of hypotheses leads to another — and we must stop the process as soon as we have acquired sufficient assurance of its validity. Fourth, the seeming simplicity of a postulate, which is largely a matter of abstraction resulting from the simplification of reality, may give an unrealistic appearance and can be quite deceptive. As far as theory construction is concerned, this unrealistic feature of postulates need not bother us too greatly. One must not commit, however, the methodological fallacy that basic concepts (or theoretical constructs) and their empirical referents are identical. They are not and probably never will be. Incidentally, it is often necessary to include some untrue assumptions for methodological expediency (for example, the arbitrary demarcation between "stocks" and "flows," while, in fact, one rarely can distinguish where stocks end and flows begin, and vice versa).

Fifth, some postulates are derived from observation of certain aspects

of the total environment, while others are from the conclusions of separate deductive systems. But for a given system, they necessarily serve as the very beginning. Otherwise they would not be postulates. Sixth, a given set of postulates describes, among other things, only certain aspects of the total environment and, consequently, delineates the boundaries of the inquiry in question. The researcher must select only those postulates which are most relevant to his study. This is not only a matter of expediency but also a necessity; otherwise, the researcher would in no time get himself enmeshed with the *total* set of relationships of the environment which is an impossible task for anyone to engage in.[6] Seventh, the formulation of a meaningful theory requires a precise identification of its basic postulates, which may be unproven, but which are definitely not undefined. In addition, a basic concept can be operationally defined only after exploration of its constitutive meaning, and only then can we impose necessary constraints.

Eighth, a set of postulates must maintain its internal consistency and harmonious relations. This, of course, does not mean that they are dependent upon each other. On the contrary, they must maintain their respective independent status, that is, without implicating each other. By consistency and harmony I mean, for example, that two conflicting postulates (such as the going concern and the liquidating concern) cannot be tolerated within the same system. Ninth, a theory system can be validly interpreted and applied only within the setting prescribed by its propositions *ad initium*. This is extremely important, because as stated previously, a theory is not without boundaries or limitations. A change of setting may render an existing theory incompetent or obsolete. Thus, we must not apply a theory to a situation to which it is inapplicable in the first place. Tenth, in terms of coherence, the frequently mentioned notion that accounting postulates are "open-ended" is fallacious when applied to a given theory structure. Finally, empirical proof of a deduced proposition *in toto* is rarely attainable. Proof (almost always partial),

[6] Even if we confine ourselves to studying a certain aspect of the total environment, it may still be too complex for us to manage. An example given by George J. Stigler relating to the study of economics illustrates this point. He says, "Imagine a three-dimensional jig-saw puzzle, consisting of 100 million parts. Some parts touch against, let us say, 1,000 other parts. . . . Other parts touch, let us be conservative, 50,000 other parts . . . but the real difficulties have yet to be mentioned. The pieces change shape quite often. . . . Meanwhile a busy set of people . . . are changing the rules. . . . And of course there are other jig-saw puzzles of comparable complexity and these other puzzles . . . are connected at literally a million points with our puzzle." See Stigler's *The Theory of Price,* 3rd ed. (New York: The Macmillan Company, 1966), p. 7.

or better yet, disproof (also almost always partial) can be made only on a *general* scale. One or a few instances do not confirm or refute a theory.

Aside from analytic and synthetic propositions, there are types of statements whose truth or falsity cannot be established either through analysis of the meaning of their words or through empirical verifications. These are known as "value statements." They are neither logical constructs nor empirical generalizations; and consequently, there is no criterion which can be used to determine their validity.

Whether justified or not, value judgments have long been associated with the social sciences. Some social scientists insist that the social sciences, by nature, are value systems. Others advocate that value judgments are outside the domain of science; and, accordingly, theory structures of the social sciences should be value free. Philosophers also are not in agreement in regard to the value issue. Modern empiricists, in general, hold value statements to be unanalyzable and unverifiable. Alfred Jules Ayer contends that ethical concepts are mere "pseudo-concepts."[7] He distinguishes, however, two types of value statements: those with purely *normative* ethical symbols and those with *descriptive* ethical symbols.[8] The former express ethical judgments of an individual and have no factual content whatsoever; the latter simply state types of conduct in the light of a given (or presupposed) society's value system.

One of the controversial issues of value judgment is the argument on the "is" and "ought" propositions. As a value judgment, the "ought" statement has no factual content and is unverifiable. It usually takes the form of an imperative sentence (that is, a commanding form). The student of management science or operation research would contend that we are never in the "is" position. This is understandable for, in the decision-making game, value judgments enable the decision-maker to rank alternatives and to rationalize choice. One must be cautious, however, in assuming the "ought" position in accounting research at the present time for, when carried too far, such a position would remove the slightest hope of finding a formal structure of accounting theory. The argument that accounting is "a part of the more general decision theories" is debatable.[9]

Although the axiological issue in the area of the social sciences is far from being resolved, it appears that — no matter how hard we try —

[7] Afred Jules Ayer, *Language, Truth and Logic* (New York: Dover Publications, Inc., 1952), p. 107.

[8] Ibid., pp. 105–6.

[9] Robert R. Sterling, "On Theory Construction and Verification," *The Accounting Review* (July 1970): 456.

value judgments are unavoidable in any human endeavor. The selection of a certain object for study and the manner in which the study is conducted (including the selection of a set of postulates) necessarily require a degree of value judgment on the part of the researcher. We believe, however, that at the present time the accounting theorist should, to the extent possible, minimize value content in accounting propositions. In a scientific sense, the accounting discipline is young and is desperately in need of a formal structure. When postulates are given value content, value conclusions are unavoidable. The danger of including the normative type of value statements or taking the "ought" position in the construction of an accounting theory is that the accountant will act as his own "referee."

The vigorous interest in the content and structure of theory shown by many eminent accounting writers in the 1960's was remarkable. The author, however, is not totally encouraged by the type of progress we have achieved in accounting by using the deductive approach in a normative (and authoritative) frame during the decade. The author is not, at this particular point, debating the elegance or validity of deductivism (or inductivism), but he does have serious reservations concerning the intervention of normative (and/or authoritative) elements in theory construction, especially in view of the present state of the accounting discipline. The emphasis on users' needs and "the pressures upon accounting researchers to invent better information systems to feed the insatiable appetite of sophisticated decision models" have "almost eclipsed the concern for accumulating knowledge, *qua* knowledge, about our field of study."[10]

This does not necessarily mean that normative or "welfare" accounting would have no place in the broad scope of the accounting discipline. Rather, it means that we must be able to differentiate between positive symbols and normative symbols in theory formulation and, more importantly, to determine *when* normative accounting properly enters into consideration. Emile Grunberg, in discussing economics, states that "the scientist is rather concerned with its power to explain and predict correctly, for the power to control events is a by-product of successful explanation."[11] Except for a single value statement for goal determina-

[10] Stephen A. Zeff, "Comment on (Louis Goldberg's) 'Varieties of Accounting Theory'," *Foundations of Accounting Theory* (Gainesville: Accounting Theory Symposium, University of Florida, March 1970), p. 10.

[11] Emile Grunberg, "The Meaning of Scope and External Boundaries of Economics," *The Structure of Economic Science*, ed. Sherman Roy Krupp (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1966), p. 149.

tion (if needed at all), normative accounting must await the construction of a theoretical framework for positive accounting. Accounting may someday become a larger discipline — large enough, perhaps, to rival management science. The temptation to exercise value judgments is strong. As Professor John G. Kemeny stated, ". . . the desire to find a firm foundation for ethics is so strong that it will even blind able thinkers to errors in their logic."[12]

TRADITIONAL VIEW OF THE GOING CONCERN POSTULATE AND SOME CURRENT CHALLENGES

The going concern concept was conceived long before "generally accepted accounting principles" (GAAP) were established. In his auditing book published in 1892, Lawrence R. Dicksee used the "perpetual existence" concept for "registered companies" under the Companies Act of 1862 to justify cost valuation of "permanent" assets.[13] Henry Rand Hatfield treated the going concern as a general "principle" applicable to valuation of specific assets (that is, fixed assets, work-in-process, and raw materials) and stated that exit prices of individual assets were irrelevant information if the firm in question had no intention of selling these assets.[14] William A. Paton cited two essential postulates of the entity theory in 1922 ("the existence of a distinct entity" and "the continuity of this entity") and maintained that both were validated from the legal standpoint.[15] A classical explanation of the traditional version of the going concern was given by Paton and A. C. Littleton in 1940 as follows: "Liquidation is not the normal expectation; continuity is."[16] The Study Group on Business Income at the University of Illinois identified the going concern as a "permanence postulate."[17] Similar definitions were also given by the American Accounting Association in

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[12] John G. Kemeny, *A Philosopher Looks at Science* (Princeton, New Jersey: D. Van Nostrand Company, Inc., 1959), p. 235.

[13] Lawrence R. Dicksee, *Auditing* (London: Gee and Company, 1902), pp. 179–84; see also his *Advanced Accounting* (London: Gee and Company, 1903), pp. 5, 227.

[14] Storey, "Revenue Realization," p. 233; and Henry Rand Hatfield, *Accounting, Its Principles and Problems* (New York: D. Appleton Century Company, 1927), pp. 74–75.

[15] William Andrew Paton, *Accounting Theory: With Special Reference to the Corporate Enterprise* (Chicago: Accounting Studies Press, Ltd., 1962), pp. 472, 478.

[16] William A. Paton and A. C. Littleton, *An Introduction to Corporate Accounting Standards* (Iowa City: American Accounting Association, 1940), p. 9.

[17] Study Group on Business Income, *Changing Concepts of Business Income* (New York: The Macmillan Company, 1952), p. 20.

its 1957 statement, by Maurice Moonitz in his *Accounting Research Study Number 1* (although he rejected the idea of "permanence"), by the Study Group at the University of Illinois, and by Paul Grady in his *Accounting Research Study Number 7.*[18]

Even with its early historical origin, it is not really clear as to what extent the going concern concept has been applied by accountants. Traditional accountants have treated the going concern as an assumption, not as an entirely factual statement. For instance, Paton and Littleton have stated explicitly that the going concern

> is of course a matter of assumption and this fact should never be lost to sight in the process of business report. . . . Enterprise mortality rates are high. . . . Further, many enterprises are launched which never experience a period of successful operations, the entire history from organization to dissolution being one of successive losses.[19]

The going concern assumption in practice, however, is generally inapplicable whenever there is a sale, merger, or liquidation of a firm.[20]

Practically all references to the going concern in traditional accounting literature convey the same theme: in the absence of evidence of liquidation, a firm is assumed to continue indefinitely. Generally speaking, under conventional accounting the going concern concept is used as a shelter to justify cost valuation and allocation as well as the realization concept. Except for the restricted interpretation, however, the relevance of the going concern to conventional accounting is not entirely invalid. For instance, the periodicity of accounting reports is in conformity with the going concern postulate. One may reason that even the costs attach and realization concepts pass the test of the continuity assumption in the sense that only a going concern can afford the amount of time needed either to complete certain incomplete transactions commenced at earlier dates or to wait for certain future events to occur. In addition, the classification of assets and liabilities into short-term and

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[18] *Accounting and Reporting Standards for Corporate Financial Statements and Preceding Statements and Supplements* (Iowa City: American Accounting Association, 1957), p. 2; Maurice Moonitz, *The Basic Postulates of Accounting,* Accounting Research Study No. 1 (New York: American Institute of Certified Public Accountants, 1961), pp. 38–39, 50; A Study Group at the University of Illinois, *A Statement of Basic Accounting Postulates and Principles* (Urbana: The Board of Trustees of the University of Illinois, 1964), p. 8; and Paul Grady, *Inventory of Generally Accepted Accounting Principles for Business Enterprises,* Accounting Research Study No. 7 (New York: American Institute of Certified Public Accountants, 1965), pp. 27–28.

[19] Paton and Littleton, *Corporate Accounting Standards,* p. 22.

[20] Pooling of interests is an exception.

long-term categories is also within the going concern realm. The compatibility of the going concern concept and conventional accounting, however, generally ends here. GAAP are, at best, static rules, lacking in internal consistency and applicable only under specific circumstances. Thus, under the conventional view of the going concern, continuity in similar manner with sufficient time to complete existing plans, costs attach, and realization are carried out by assuming a stationary state of business condition; and any changes in internal and external conditions without actual transactions are generally ignored. The most one can say of these elements is that they are extreme restraints of the going concern proposition.

The extent of the failure to articulate the going concern postulate under conventional accounting is more than one normally realizes. Except under stationary conditions, costs attach and realization are certainly not logically consistent. While costs attach, as will be discussed later, is basically in conflict with the going concern, realization — which represents only a certain point of the movement of resources of a firm — is, at most, of secondary significance to a going concern. Furthermore, the going concern concept should not be regarded as a future concept (that is, anticipation of continuity into the future). Rather, it is simply a postulation of the position of a firm made at a given point of time; and, as such, it should be treated as a *present* concept. Moreover, the going concern concept is a total concept, meaning that conceptually it is applicable only to a firm as a whole. Because of the static and inconsistent interpretation, the validity of the going concern concept as a relevant accounting postulate has been vigorously challenged in recent years. For instance, Storey argues that the going concern concept is quite neutral with respect to valuation and income determination because it merely precludes liquidation and requires asset valuation according to "intended use"; and it is the realization convention, not the going concern, that bears significant impact upon valuation and income determination.[21] Fremgen notes that different writers have used the going concern to support particular approaches of valuation and income determination and that the going concern postulate does not help us formulate meaningful accounting principles.[22] Sterling contends, in part, that the going concern is not an assumption, but a prediction.[23] In addition, Sterling argues that the going concern concept does not automati-

[21] Storey, "Revenue Realization," pp. 237–38.
[22] Fremgen, "Going Concern Assumption," pp. 651–52, 655–56.
[23] Sterling, "Going Concern," pp. 493–95.

cally preclude liquidation values.[24] Both Sterling and Fremgen also maintain that the going concern implies an assumption of "successfulness" or "no negative profit."[25]

These are serious challenges which contain a number of valid attacks on the traditional version of the going concern concept. Unfortunately, in criticizing the going concern, these writers fail to explain fully the basic nature of the concept as well as its implications.[26] The remaining sections of this paper will, in part, attempt to clarify these criticisms.

LIQUIDATION, GOING CONCERN, AND THE ACCOUNTING ENTITY

That the accounting entity is the center about which accounting data are accumulated is not a truism. The history of accounting reveals that although the entity concept is not new, its acceptance as a valid postulate is a fairly recent event.[27] For reporting and analytical purposes, the entity proposition has thus far fulfilled the function of accounting. The proof of its validity rests in the fact that we have not yet discovered an alternative which would serve equally well or better.

The entity postulate may be treated as a "universal" proposition; that is, it refers to every accounting unit in the economy. It probably was initially derived from the external world. Our intuitive belief stemming from the economic environment suggests the existence of a business world consisting of specific entities. The consequential meaning of those entities, however, is not immediately given. Thus, we must discover their meaning and ascertain their status in a precise, explicit manner.

Let us postulate only two types of business enterprises — going and

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[24] Ibid., p. 485.

[25] Ibid., pp. 483, 489; Fremgen, "Going Concern Assumption," p. 651.

[26] Except for part 6 of Sterling's paper ("An Alternative to Prediction"), in which he attempts to treat the going concern as a basis for "present measurements." See Sterling, "Going Concern," pp. 497–501.

[27] The origin of the entity concept is somewhat controversial. History shows that several writers, including E. G. Folsom, Leon Gomberg, J. N. Brenkman, and Manfred Berliner conceived the entity concept in the 1870's and that Brenkman and Berliner made their respective claims as to the origination of the concept in their works; see John P. Lacouture, Jr., "The History of Accountancy: 1600-1900" (Ph.D. diss., University of Florida, 1969), pp. 126–28; also A. C. Littleton, *Accounting Evolution to 1900* (New York: American Institute Publishing Company, 1933), pp. 193–200. Stephen Gilman asserts that in relation to double-entry recording, the entity concept was used by Pacioli in 1494; see Gilman, *Accounting Concepts of Profit* (New York: The Ronald Press Company, 1939), pp. 48–49; also Louis Goldberg, *An Inquiry Into the Nature of Accounting* (Iowa City: American Accounting Association, 1965), p. iii.

liquidating. To maintain the internal consistency and harmony of a set of postulates in a theory structure, we can allow only one of them in our structure since they are opposite types of organization. The choice depends upon the type of theory system that one wishes to construct. Whatever type of business entity postulate is accepted, we must remember that the formulation of an accounting postulate must be made in light of sequential inferences relevant to explaining business operations. Logic alone does not establish relevance and meaningfulness of the *content* of a theory.[28] The selection of a certain set of accounting postulates conditions the type of accounting theory to be built. Thus, it is quite possible to have alternative theories constructed for the same discipline under different sets of postulates. The validity of the going concern postulate will become quite clear, however, if we decide to build an accounting firm model based on the idea of continuous possession and utilization of scarce resources.

Liquidation ordinarily implies forced sales. When a firm is in the process of liquidation, its assets are, individually and/or jointly, converted into cash in a market which is different from the one for normal business transactions. Thus, the term "liquidation" is, in essence, applicable to *individual* assets. R. J. Chambers distinguishes between forced liquidation and orderly liquidation. He states:

We may speak of any firm which is not in the process of forced liquidation as a going concern . . . [and a firm under forced liquidation] can scarcely be described as a going concern. . . . [A going concern] has at least some future, even though we do not know at the time how far that future will extend. . . .[29]

"Going" does not inherently mean continuing in an indefinite manner. No firm can continue forever. Obviously, we do not really mean indefinite continuity. In addition, the length of continuity into the future is irrelevant to the going concern proposition. The significant point is that we are interested in the status of a firm at a given point of time in terms of its earning potential measured, to the extent possible, at the same point. The unknown feature of futurity is formidable to anyone. Indeed, in light of the current movement of mergers and consolidations, it seems that no firm can safely be treated as a going

[28] For example, Yuji Ijiri, using an axiomatic approach, attempted to show that the framework of historical cost accounting could be so methodologically constructed as to make its basic concepts, principles, and operational rules a logically consistent body of knowledge. See Ijiri, *The Foundation of Accounting Measurement* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967).

[29] Raymond J. Chambers, *Accounting, Evolution and Economic Behavior* (Englewood Cliffs, New Jersey: Prentice-Hall, 1966), p. 204.

concern. Being a synthetic proposition, the going concern is the result of past and present experiences, as well as of a certain degree of abstraction, which serves as a guideline for future experience without a guarantee.

It has been contended that neither the going concern proposition nor the liquidating concern proposition is relevant to the derivation of accounting principles. This argument is difficult to accept. Basically, accounting is concerned with the measurement of the utilization of economic resources. Certainly, the utilization of resources is not centered about the liquidation concept. In addition, the manner in which resources are utilized by a going concern is necessarily conditioned by its motivations, which are definitely different from those of a liquidating firm. Thus, continuity must be interpreted in a relative manner.

The basic theme of the going concern that is important is the *intention* of the firm in question to continue at a given point of time. Without evidence of liquidation, we may have to postulate. Of course, intention must be substantiated by reasonable types of evidence, such as the basic goals of the firm, its performance, its present economic position, the manner in which its resources are possessed and utilized, its short-run and long-run plans, and any other relevant information that suggests the likelihood of continuity. Only when a firm does not have the intention to continue, or when evidences do not support the continuity proposition, do all logical inferences based on the going concern cease and a different reasoning, such as a liquidation theory, begins.

That there are firms which have failed to continue after seemingly sound financial statements were released to the public is not necessarily due to the conceptual invalidity of the going concern postulate. Rather, it is probably due to the unsoundness of the GAAP which currently govern and shape the content and quality of financial statements. While financial statements are management's representations, the accountant certainly does not, and should not, always share management's "continuity" viewpoint.[30] Instead, he must be guided by a valid conceptual framework. It is true that we do not at present have such a frame of reference, but this does not mean that we can rely largely on our value judgment and declare that a certain firm is heading for liquidation. What would be the accountant's legal and moral responsibilities if liquidation did not materialize? As a matter of fact, many such firms do continue and eventually become successful ones. The accountant has

[30] Sterling seemed to assume that the accountant too often shared the management's viewpoint of continuity. Sterling, "Going Concern," p. 482.

enough problems currently without attempting to predict the future.

The selection or rejection of the going concern or the liquidating concern postulate dictates, at least partly, the viewpoint which one accepts in studying the behavior of business enterprises. A generalized statement from observation, such as the going concern proposition, always contains an element of falsity and is subject to refutation. Indeed, there have been, and probably will be, many instances where firms have failed or will fail to continue. On the other hand, one may make a hypothesis that every firm is a liquidating concern, since no firm can continue forever. Thus, in addition to empirical correspondence, the selection of either one must be supported by a certain degree of abstraction in terms of its relevance to subsequent inferences.

One of the disconcerting problems of accounting that we face today is not merely that we have not been able to create new basic concepts, but that we have failed to explain the relevance of the few we do have. The misconception of the going concern under conventional accounting stems partly from the "discovery process" under specific circumstances, and partly from a stationary interpretation of the proposition. The heart of the entity issue is that unless the entity concept (for example, going or liquidating) is explicitly identified and defined, principles so deduced would be applied blindly. As stated previously, logical inferences from a set of basic postulates should not be applied in areas which are irrelevant to the initial propositions. Thus, in the selection of the going or liquidating concern proposition, we must weigh the relevance of measurement to the *interplay* of the entity and its scarce resources so that a meaningful stream of information can be provided. Firms vary from one another and are difficult to posit; but in scientific inquiry, we must look for similarities of firm behavior. Therefore, we may reason that, in the absence of concrete evidence of liquidation, the going concern, rather than liquidation, is more relevant in depicting the continuous possession and utilization of economic resources at the enterprise level.

THE GOING CONCERN AND THE FIRM

The going concern per se is definitely a dynamic concept.[31] As such,

[31] The two terms, statics and dynamics, are widely used in economic analysis. Both are borrowed from mathematical mechanics, but the economist has not been very faithful to the original meanings of these terms. Statics is concerned with rest, or more precisely, with the study of bodies in equilibrium (that is, zero forces). Dynamics deals with physical phenomena involving acceleration. In economic analysis, a static condition is defined as "one in which certain key

it is not in harmony with historical cost accounting. The word "going" implies motion, change, and movement. Thus, a going concern is a firm which moves, expands, and contracts through time and space. A firm must constantly adjust itself to changing conditions. With multiple goals, a firm must resort to a variety of measures in order to keep going. To be a going concern in an ever changing world, it is far from sufficient and effective to consider only the completion of existing programs established in the past. The past is relevant only to the extent that it has placed the firm at its current position upon which decisions and the course of further actions are shaped. Thus, a firm must continually modify its existing plans; and what is more important, it must make new plans. A going concern owns and must keep owning scarce resources. This is an endless process and is of interest only to a going concern. Effective management is always interested in the total earning potential of the firm. Survival, for instance, may call for growth and diversification. Failure to survive automatically rules out continuity. Thus, there is a perpetual path along which a firm travels as long as it continues. The going concern proposition simply allows us to set forth the status of the firm on a current basis with a view of continuing utilization of the firm's resources.

Conceptually, the going concern is applicable to the firm as a whole. At the present time, because of practical difficulties in employing the total concept, a firm is generally measured in terms of its components, that is, its resources — tangible and intangible. When the going concern is applied to the measurement of individual assets, misconception often stems from an isolated view. This is like examining each individual tree without seeing the woods. Some trees live to old age; others die young. In addition, new trees are born each year. Thus there is birth, growth, and death of individual trees, but it is through the individual trees that the forest perpetuates. When the going concern is related to the valuation and utilization of individual assets, it must be borne in mind that the value of each asset is, in part, contingent on the values of other assets of the firm in question, and that it must be of value to the firm. In light of the going concern, this signifies not only the indivisibility of the total value of the resources of the firm but also the inseparability of the value of an asset and the firm. The employment of a piecemeal basis of valua-

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variables (the quantities of commodities that are produced and consumed, and the prices at which they are exchanged) are unchanging. A dynamic condition is then, by inevitable opposition, one in which they are changing. . . ." John Hicks, *Capital and Growth* (London: Oxford University Press, 1965), p. 6. In using these two terms here, we shall be as unfaithful as the economist.

tion is a matter of necessity and expediency. Incidentally, the liquidation concept does not, in general, have this "totality" element.

Another aspect of the going concern is that a firm, being an independent entity, accounts for its own interest and benefits. This is of particular importance in light of the behavior of large business enterprises and of the growing power of management in our contemporary society. With this line of reasoning, the "value-added" concept of income is quite relevant to the going concern.

The going status of a firm can be most effectively depicted through the operating-cycle concept which, in general, is inapplicable to a liquidating concern. The cycle of operations embraces all phases of the economic activity of a business enterprise. In essence, it reflects the interplay of stocks and flows and of nonfinancial and financial flows.[32] The basic nature and the functions of the operating cycle are common to all going concerns. "Orderly liquidation" of individual assets does not interrupt the revolving nature of the cycle; rather, it generates power to the movement of the cycle.

A significant phase of the cycle is that it reveals, in a relative sense, the "permanence" and relatedness of assets. Rarely can a single asset function alone. Resources must be combined and utilized in a total manner. Nonfinancial assets (for example, inventories and plant and equipment) cannot function without the assistance of financial assets. By the same token, utilization of fixed assets requires the use of current assets. As long as a firm is "going" it must maintain both current and noncurrent assets at their respectively proper levels. Thus, current assets as a whole are just as "permanent" as fixed assets. The liquidity concept of a firm in terms of its working capital and composition of its current assets is valid only in the sense that the firm must maintain a proper level of liquid funds in order to keep its operating cycle functioning. Current assets differ from noncurrent assets primarily in turnover rates, which are a matter of timing.

To a going concern, there is no greater intent to liquidate its current assets than to liquidate its fixed assets. Both types of assets are continuously on the move in the operating cycle, and neither kind can be said to be exhausted or liquidated. They perpetuate as long as the firm stays in business. The disposal of a *specific* asset reflects merely a motion of the cycle. It is true that each asset, once acquired, is on its way to being

[32] For a discussion of the interplay of nonfinancial and financial flows, see S. C. Yu, "A Flow-or-Resources Statement for Business Enterprises," *The Accounting Review* (July 1969): 571–82.

disposed. It is not true, however, when we speak of each necessary *type* of asset which must be maintained in order to keep the firm going. The orderly movement of assets in the operating cycle implies that assets are planned and controlled by management in order to ensure continuity. Even in a case where a useless or obsolete asset is liquidated in a "forced" sense, the action is definitely for "operating" purposes and certainly is not the same as under a liquidating concern.

In brief, we may say that because the operating cycle reflects the continuous, orderly movement of an enterprise's resources, the cycle reveals the indivisibility of asset utilization and thus portrays the entire course of operations of the enterprise. When we relate the cycle of operations to the going concern, it once again confirms the conceptual totality of the postulate.

GOING CONCERN AND MEASUREMENT OF SCARCE RESOURCES

When viewed as an independent, going entity, an enterprise has a distinct identity by which the characters, functions, and relations of its components are ascertained. Thus, an asset without the identity of a business entity has no special character and function. Once owned by a going concern, its economic value (potential benefits) must be that to the firm. Accordingly, such an asset must be valued on a *going concern* basis. This apparently puts us in the dilemma of valuing an individual asset in terms of a whole firm. Let us examine a number of valuation bases, then consider the excess of the aggregate value of a firm over the sum of its individual asset values — the so-called "going concern value" or "enterprise value."

As stated previously, an asset cannot itself provide services or actions. It must be employed by the one who possesses it. In the case of business enterprises, the service potentials of assets are generally governed by the conditions of individual firms which vary from one another. Thus, an asset may be visualized as a "coproducer" with its owner or possessor.[33] On the other hand, a firm's economic strength is measured by the scarce means that it commands, and the means it possesses necessarily constitute an aspect of its own environment within which the firm acts. Thus, the power or value of an asset depends, in part, upon the action of its decision-maker, who presumably tries to maximize his position by combining each particular asset with his other assets and by

[33] C. West Churchman, *Prediction and Optimal Decision* (Englewood Cliffs, New Jersey: Prentice-Hall Inc., 1961), pp. 324–25.

utilizing them in the most effective way possible during a given period of time.[34] This also indicates that, with the exception of monetary assets, asset valuation on a piecemeal basis is, in general, in conflict with the going concern postulate. Because of the extreme difficulty of valuing assets according to their total contributions to the firm in question, however, practicality and expediency win. In other words, when we have trouble in measuring the whole, we naturally examine its components. Imperfect as the method may be, the sum of the individual components must be somehow adjusted for their joint value so that the final amount derived will correspond to the approximate aggregate value of the firm.

In general, the going concern postulate is in accord with current-value accounting in the sense that we need to ascertain, at least partially, the current position of the firm. Historical costs are static in nature and hence are incompatible with the going concern postulate. The use of current value (both input and output values) calls for estimates which are in full harmony with the going concern. The true position and profits of a firm can be determined only upon liquidation. Incidentally, the measurement theory of accounting, whatever it is, necessarily involves estimates, approximation,[35] or "maximum likelihood."[36] For valuation purposes both input and output current values are abstract constructs. Several writers have advocated the compatibility of replacement cost with the going concern proposition.[37] Although replacement cost may reflect the minimum economic value of an asset to the firm, it represents a restrained version of valuation on a current basis. As to exit prices, they are relevant only to those assets which are intended for sale and have a ready market. In respect to the opportunity cost concept, it is relevant to asset valuation under the going concern

[34] Ibid., p. 326.

[35] Kermit D. Larson, "Implications of Measurement Theory on Accounting Concept Formulation," *The Accounting Review* (January 1969): 38–39.

[36] Henry Margenau, "Philosophical Problems Concerning the Meaning of Measurement in Physics," *Measurement, Definition and Theories,* ed. C. West Churchman and Philburn Ratoosh (New York: John Wiley & Sons, Inc., 1959), p. 165.

[37] A. B. Carson, " 'Replacement Cost' Is Compatible with Going Concern Postulate," *The Journal of Accountancy* (January 1959): 35; Edgar O. Edwards and Philip W. Bell, *The Theory and Measurement of Business Income* (Berkeley: University of California Press, 1961), pp. 90–92, 275; Robert E. Sprouse, "The Measurement of Financial Position and Income: Purpose and Procedure," *Research in Accounting Measurement,* ed. Robert K. Jaedicke, Yuji Ijiri, and Oswald Nielsen (Madison, Wisconsin: American Accounting Association, 1966), p. 113; and Dwight R. Ladd, *Contemporary Corporate Accounting and the Public* (Homewood, Illinois: Richard D. Irwin, 1963), pp. 43, 55–56.

only in cases where it is applicable.[38] Alternative uses of certain resources may not be readily available to the enterprise. The divergence between the internal and external values of an asset, though ultimately accounted for in the marketplace, is not always reconcilable at a given point of time.

Since valuation on an individual basis is insufficient to measure the aggregate economic strength of a going concern, plus the fact that a number of intangible assets under the present state of accounting technology are not quantifiable, let us consider a very controversial item, namely, the going concern value. Although this value is, admittedly, extremely difficult to determine, nevertheless, it has a conceptual validity. The going concern value exists only in a going concern and is inseparable from the firm. Its basic nature seems to suggest that there is some kind of value in a firm created from its merely being in existence. One probably would be inclined to think that it is a value arising from owning and combining an enterprise's resources (tangible and intangible) in an aggregate manner.

The going concern value should not be confused with goodwill or "super-profit" value, which often implies some extraordinary earning power of a firm and which usually places the firm in a favorable comparative position. The going concern value may be either positive or negative. When positive, it signifies efficient allocation and utilization of resources at the enterprise level, but it does not necessarily imply any unusual earning power of the enterprise in question. When negative, it may imply misallocation and/or inefficient utilization of resources. That a firm may be doing its best and fail to make a satisfactory return on its capital may be due to the fact that it is in a sick or declining industry.

Asset valuation and income measurement are conceptually inseparable. From an operational viewpoint, income may be deemed to be a result of changes in the economic values of resources of a firm. This is a suitable definition of business income in the sense that business enterprises are not ultimate consumption units but are intermediary economic entities. Inasmuch as asset values are indivisible, net income attributes necessarily to the total process of operations which occurs "over the entire life of a business enterprise" — a logical inference under the going concern postulate.[39]

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[38] Edgar O. Edwards and Philip W. Bell note that market imperfection reduces the relevance of opportunity costs to a going concern. See Edwards and Bell, *Business Income,* pp. 86–87.

[39] Robert T. Sprouse and Maurice Moonitz, *A Tentative Set of Broad Account-*

Changes in the values of resources are effected by both internal and external forces. The extent of recognizing those changes for a specific period of time has been the focal issue of income measurement in accounting. Complications of income measurement do not arise under liquidation.[40] To a going concern, the crucial element of income measurement is timing. Holding gains and losses, for example, arise only under the going concern postulate. As stated previously, the periodicity of income determination requires the going concern assumption. Any distortion of periodic income due to timing, however, is not necessarily inherent in the going concern proposition; rather, it is a basic problem in identifying the properties to be measured. On the other hand, the tentativeness of the income statement, and, for that matter, of the balance sheet, is an inherent characteristic of the going concern concept.

Under the going concern, the income statement should be regarded as an accounting device depicting the production phase of the operating cycle of a firm for a given period of time. The conversion of certain assets into a more liquid state during a particular period is only one side of the picture. The other side is the reverse course of the conversion. When both sides are considered, there emerges a process which reveals a revolving cycle of asset movement of a continuous nature.[41] Conventional income determination is related to the "liquidity" concept, mainly because of the realization doctrine.[42] This "liquidity" version of income measurement is too restrictive. The value or economic position of a firm does not await a particular transaction rigidly set at a certain point of time. The traditional matching concept is indeed a severe restraint of the going concern. Paton and Littleton's "effort-and-accomplishment" concept appears to be flawless; but when effort is associated with cost, and accomplishment is stated at the point of realization, it loses its significance to the going concern proposition.[43]

It has been claimed that the going concern postulate implies or

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ing Principles for Business Enterprises, Accounting Research Study No. 3 (New York: American Institute of Certified Public Accountants, 1962), p. 10.

[40] Edwards and Bell, *Business Income,* pp. 90–92.

[41] The two phases of the operating cycle and their interplays were well stated by A. C. Littleton in his *Structure of Accounting Theory* (Menasha, Wisconsin: American Accounting Association, 1953), pp. 80–81, 98.

[42] Charles T. Horngren disputes, to some extent, "liquidity as a characteristic of realization . . . because it . . . is subject to too many exceptions for comfort." See his "How Should We Interpret the Realization Concept?" *The Accounting Review* (April 1965): 330 (including his comments on Carl T. Devine's "realization construct" in footnote 30).

[43] Paton and Littleton, *Corporate Accounting Standards,* pp. 14–15.

requires an assumption of continuous operations at a profit, that is, "no negative profit."[44] This is an inconclusive statement. Certainly, few firms, if any, can continue for a lengthy period of time without making a profit. There is a distinction, however, between profits already made (*ex post*) and expectations of profits (*ex ante*). As long as there is a hope of an eventual profit justified at a given point of time in terms of the economic position of the firm in question, the firm generally will — other things being equal — continue. What is more important is that profits reveal only a partial picture of the performance and behavior of a firm. In analyzing a firm, we must be guided by some broad measures which account for all the underlying forces governing and shaping the course of operations of the firm. New firms usually do not make satisfactory profits and may even suffer losses. Some firms may be in the process of expansion, diversification, or contraction — often at the expense of immediate profits. Others may be able to show an excellent earnings record for a number of periods but are without intermediate or long-run plans for maintaining their competitive capacity in the future. Thus, profits alone, positive or negative, are not at all conclusive in ascertaining whether a firm is "going" or is heading for liquidation, especially in the short run. The point is that the net income figure is an oversimplified measure and is far from conclusive in revealing all the essential elements of the performance and conduct of the firm. A going concern is such a complex organization that its motivation and behavior simply cannot be totally understood by looking at one single figure.

SUMMARY AND CONCLUSION

Accounting postulates are, by nature, synthetic propositions. As such, they cannot be self-evident truths which can be known immediately. The validity of accounting postulates rests upon the relevance of the deduced principles to consequences of operations. Existing accounting postulates lack clarity. The tentative acceptance of a set of postulates as valid requires proper identification of the setting within which a theoretical structure is to be built. Apparently, much of the misconception about the going concern arises partially from our inadequacies in identifying, in a precise and explicit manner, its basic nature and meaning and partially from our failure to determine its other dimensions, particularly in terms of its implications to the flows of resources at the business-enterprise level. The construction of a systematized body of

[44] Sterling, "Going Concern," p. 489; and Fremgen, "Going Concern Assumption," p. 651.

knowledge involves model-building. In the author's opinion, an accounting firm model based upon continuous possession and utilization of resources will necessarily require the acceptance of the going concern postulate.

Since the identity or status of the accounting entity is not immediately given, it is necessary to describe and ascertain the entity proposition. If we visualize accounting as dealing with social and economic relations of human beings in terms of the motivation and behavior with respect to the continuous utilization of scarce resources, then the going concern postulate seems to be a logical choice for the construction of an accounting theory system. Continuous utilization of economic resources cannot be meaningfully depicted under the liquidation concept which, at most, identifies a special link in the process of movement of resources within an economic system.

The conventional version of the going concern concept is, at most, a static, restrictive one. By nature, the going concern is a dynamic concept, reflecting the motion and movement of a continuing firm through time and space. Historical cost accounting assumes a stationary state of business, and as such it is in conflict with the going concern postulate. Current values and their approximations, though imperfect, are basically in accord with the going concern.

No firm can continue forever. Thus, "going" must be interpreted in a relative manner. The going concern proposition provides a basis for setting forth the economic position of a firm at a given point of time with a view to further utilization of the firm's resources.

Conceptually, the going concern is a total concept — meaning that it is related to the firm as a whole. With this implication, all the logical inferences that flow from it will become quite clear. For instance, the cycle of operations is concerned with the continuous utilization of a firm's resources in a total manner. Similarly, the character and function of an asset are necessarily associated with the firm which owns it, and its value must be that to the firm. While there is no reliable way of determining the so-called "going concern value," it nevertheless has a conceptual justification under the going concern proposition. Piecemeal valuation is largely a matter of expediency and also a severe restraint of the going concern postulate. In respect to income measurement under the going concern, it is quite clear that periodic net income is an inconclusive, oversimplified figure. For a going concern, we need much broader measures which will depict the economic position of a firm at a given point of time and account for the essential phases of the firm's

activities for a given period of time. Conventional financial statements are deficient in these respects.

As a final note, we may say that the validity and relevance of the going concern proposition rest upon its disproof by finding an alternative which will serve equally well, or better, the basic function of accounting. Until that time comes, the going concern postulate must be retained. With a full understanding, however, it is clear that the full impact of the going concern proposition upon accounting theory has yet to be felt.

The Modern Systems Approach, General System Theory, and Accounting Theory Development in the Age of Synthesis

CHARLES H. SMITH*

INTRODUCTION

The objective of this paper is to investigate whether or not the systems approach and general system theory can contribute to the development of accounting theory. Two factors encouraged research for this paper. They were:

1. The judgment of the American Accounting Association's 1966 Committee to Prepare a Statement of Basic Accounting Theory that "the nature of future accounting can be seen only in dim outline and it is premature to suggest a detailed framework for a theoretical structure of future accounting."[1] There was an apparent hesitancy by the committee to be too specific in its statement, and it found it appropriate only to "suggest . . . a general outline of such a structure in order to direct attention to the need for broad theoretical studies of the accounting discipline."[2]

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[1] Committee to Prepare a Statement of Basic Accounting Theory, *A Statement of Basic Accounting Theory* (Evanston, Illinois: American Accounting Association, 1966), p. 68.

[2] Ibid.

2. The current use of the systems approach by, and the influence of general system theory in, numerous other disciplines.[3]

This paper attempts a broad examination which may, hopefully, give direction for further study.

A MACRO-MICRO EVOLUTION

The systems approach and general system theory must be defined; this will be attempted by a background description of an interesting evolution that has occurred in numerous disciplines. This description may serve as a useful point of emphasis for this paper.

In some disciplines the development and accumulation of knowledge reflect a macro-micro order over time.[4] In other areas of study, although this pattern of evolution is not as apparent, the current existence of a macro approach is clear.

The first phase of this evolution consisted essentially of a systematic comprehension of the whole area of study. The second phase found advances being achieved by analyzing complex wholes into simpler parts; parts of the whole were analyzed, but a synthesis of the whole was neglected. The third, that is, modern, phase evidences a reversion to a macro approach.

In physics the ideas of Newton were dominant during the period from the end of the seventeenth to the end of the nineteenth centuries. Newton's outlook of the physical universe presented in his *Principicia Mathematica Philosophiae Naturalis* was macro in nature. He saw the world as a system, and his laws of motion are regarded as the first great synthesis in physics.[5] Classical physics, although founded on the theories of Newton and Maxwell, represented a movement into a micro era during which problems were subdivided for purposes of study. Gibbs and Bolzmann finally brought the downfall of the Newtonian views, and the nineteenth century saw a reaction to the view that all knowledge may be possible through microscopic dissection. Modern physics, dating from approximately 1900, has once again adopted a macro approach.

[3] This trend in use and influence is emphasized in a summary of systems concepts used by writers in eleven different disciplines. See O. R. Young, "A Survey of General Systems Theory," *General Systems Yearbook 9* (1964): 61–80.

[4] Scott has drawn attention to this evolution in physics, economics, sociology, and organization theory. See William G. Scott, *Human Relations in Management* (Homewood, Illinois: Richard D. Irwin, Inc., 1962), pp. 152–54.

[5] A macro approach can be regarded as one of synthesis or as a systems approach. A micro approach is essentially one of analysis.

The evolution is almost as clear and striking in other natural sciences. Although Leibnitz viewed the living organism as a plenum composed of other living organisms, Ashby correctly notes that "science . . . for two hundred years . . . has tried primarily to find within the organism, whatever is 'simple'."[6] The following statement by Ashby clarifies the nature of the emphasis:

The triumph has been in analysis, not in synthesis. Thus, today the biochemist knows more about the amino acids of which egg protein is composed than he does about the white of egg from which they have been obtained. And the physiologist knows more about the individual nerve cell in the brain than he does about the action of the great mass of them in integration.[7]

Sir Ronald Fisher was one who caused a change. He regarded the method of reducing units to pieces as being too slow. He treated soil and plant as a complex whole. According to von Bertalanffy,[8] this new approach is also found today in biology, chemistry, anatomy, embryology, physiology, forestry, and medicine.

In the discipline of economics, Adam Smith's *Wealth of Nations* considered matters such as national income and welfare, after which a trend toward theories of the firm developed. Finally, Keynes' *General Theory* concerned itself with natural and man-made forces of the entire economic universe — the economy.

Sociology's first macro era saw the "system builders" with Compte concerning himself with all of society's institutions. The later shift was to a more detailed concern of smaller social units, and today we find people like Parsons and Etzioni being concerned with the complexities of dynamic organizations and societies.

In psychology the concern has shifted from individual behavior to the behavior of groups, subsystems, and the total organization. There now exists a systems-oriented organization branch of psychology.

"Classical school" organization theorists such as Mooney and Reiley considered the parts and processes of the formal organization.[9] The neoclassical school concerned itself with particular aspects of behavior. Concepts such as morale, productivity, and leadership received attention during this period. Finally, although modern organization theory is still

[6] W. Ross Ashby, "General Systems Theory as a New Discipline," *General Systems Yearbook 3* (1958): 1.
[7] Ibid.
[8] Ludwig von Bertalanffy, *Problems of Life* (New York: Harper and Brothers, 1960), pp. 181, 189.
[9] This section is based on Scott's description of the evolution. See Scott, *Human Relations,* p. 154.

in need of a framework and an integration of various points of view, the entire organization is once again the central concern.

The modern macro approach in philosophy preceded similar developments in many other fields.[10] Russian dialectical materialism is a philosophy originated by Marx and Engels as an application of the dialectical method of Hegel. An important aspect of this philosophy is its focus on nature as an organic whole. Furthermore, in 1912 Nicolai Hartmann emphasized the importance of the systems (macro) approach.

THE MODERN SYSTEMS APPROACH

For certain people the phrases "Jet Age," "Space Age," and "Atomic Age" are apt characterizations of our time. For an ever-increasing number of people, the phrase "Systems Era" is more appropriate. Evidence to support this description may be found in our newspapers and in the literature of many disciplines.

The modern systems (macro) era finds scholars focusing their attention on the unit of study or system (for example, the organism of biology or the organization of organization theory) of their respective disciplines. Scholars of the new macro era have defined this new conception of a system which is illustrated in exhibit 1. An examination of certain of these definitions permits the following summary explanation of the systems concept:[11]

1. A system consists of parts or subsystems. (Subsystems can be viewed as systems in their own right, and, in turn, are composed of parts or subsystems; for example, a social organization is composed of groups of people; groups of people are composed of individual beings, and the latter are composed of cells, and so forth.)
2. The parts are interdependent and must, therefore, be connected in order to produce an organized or systematized whole.
3. The parts forming the whole function in harmony; the objective is to maintain order and to accomplish the objectives of the whole.

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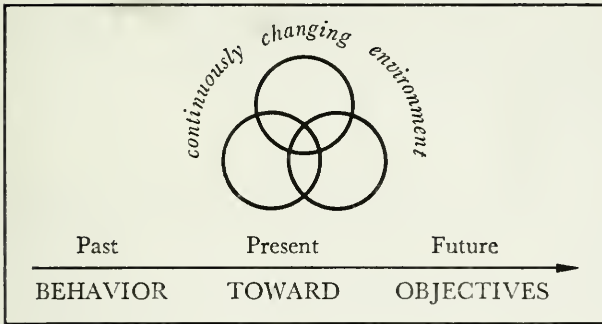
[10] This has rather pointedly been noted by two writers from the Soviet Union. See V. A. Lektorsky and V. N. Sadosvsky, "On Principles of System Research," *General Systems Yearbook 5* (1960): 176.

[11] See, for example, Stafford Beer, *Cybernetics and Management* (New York: John Wiley & Sons, Inc., 1959), p. 9; A. D. Hall and R. E. Fagan, "Definition of System," *General Systems Yearbook 1* (1956): 18; Stanford L. Optner, *Systems Analysis for Business and Industrial Problem Solving* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965), pp. 26, 35; and Stafford Beer, "Below the Twilight Arch: A Methodology of Systems," *General Systems Yearbook 5* (1960): 9.

Exhibit 1. The New Conception of System



4. This combined action takes place in a continuously changing environment.

In the modern macro era, the emphasis is on dynamic, ongoing, ever-changing, continuous events and conceptualized relationships among complex phenomena. Dynamics rather than statics of the earlier macro era are emphasized now, and the whole, rather than isolated parts of the predecessor micro era, is studied.

Newton studied the whole universe, but it was viewed as being composed of static processes and entities. In modern physics, wholeness, organization, and dynamics are the important concepts. In the micro era, Sherrington studied the simple stretch reflex in functional isolation, but Fisher accepted the complexity as a given property and did not alter variables singly in his experiments. In biology, von Bertalanffy described the new approach as the organismic view or concept,[12] and in 1944 we find the "organismic" scientist Hirsch much concerned with dynamic histology. Keynes viewed the economy with its complex phenomena and interrelationships as a dynamic entity and sought to integrate them into a systematic whole. Classical organization theorists focused on static parts and processes, but today the organization is viewed as a behavorial system. Dialectical materialism focuses on nature as an organic whole; and the interaction of parts, continuous movement and evolution, and a struggle of inner contradictory tendencies are basic principles. Hartmann's approach, too, was not a simple macro approach. He emphasized the forces interacting in a system in order to establish balance.

A summary criticism of past approaches is that they contradicted

[12] von Bertalanffy, *Problems of Life*, pp. 180, 181, 189.

reality. The first macro era studied a system, but parts were regarded as static. The micro era studied individual parts without relating them to a whole. Both approaches ignored the dynamic nature of the world in which we live.

GENERAL SYSTEM THEORY

General system theory has emerged almost symptomatically with the movement to the systems approach. It could be argued that, until recently, physics was the only discipline having a conceptual structure which enables scholars to explain, predict, and control nature. Now, however, scholars in the biological, behavioral, and social sciences have become increasingly concerned with the development of structural conceptualizations in their respective disciplines and have found limitations to the concepts provided in the system of physics. These scientists are concerned about a living world as compared to the inanimate nature of physics. In the physical world, the second law of thermodynamics, entropy, has applicability. Observers of living systems, however, do not find a "natural tendency toward disorder." New models and theories are needed to explain biological, behavioral, and social phenomena. General system theory is concerned with aspects hitherto neglected.

Ludwig von Bertalanffy, the biologist and initiator of the general system theory movement, has made an interesting observation:

> If we survey the various fields of modern science, we notice a dramatic and amazing evolution. Similar conceptions and principles have arisen in quite different realms, although this parallelism of ideas is the result of independent developments, and the workers in the individual fields are hardly aware of the common trend.[13]

General systems theorists have observed the existence of isomorphies in many disciplines. Their initial conclusion is simply that if principles governing the behavior of intrinsically widely different entities are similar, then the idea of isomorphism could suggest, as stated by Young, "that at a basic level there exists a body of theoretical principles which can be applied usefully to systems of all kinds and from all disciplines."[14] That the latter is the more specific objective of general system theory is confirmed by Boulding in the following:

> In recent years increasing need has been felt for a body of systematic theoretical constructs which will discuss the general relationships of the empirical world. This is the quest of General Systems Theory.

[13] Ibid., p. 176.
[14] O. R. Young, "General Systems Theory," p. 61.

> Somewhere . . . between the specific that has no meaning and the general that has no content there must be, for each purpose and at each level of abstraction, an optimum degree of generality.
>
> General Systems Theory is the skeleton of science in the sense that it aims to provide a framework or structure of systems on which to hang the flesh and blood of particular subject matters in an orderly and coherent corpus of knowledge.
>
> . . . it hopes to develop something like a "spectrum" of theories — a system of systems which may perform the function of a "gestalt" in theoretical construction.[15]

If a "unity of knowledge" does exist, then the objective of general system theory is to develop a theoretical structure having applicability to numerous disciplines, that is, to develop a "system of systems" or "discipline of disciplines."

THE AGE OF SYNTHESIS AND IMPLICATIONS FOR ACCOUNTING THEORY DEVELOPMENT

The modern macro era is seen to be characterized by a focus on the unit of study (system) of a discipline, and the desire to develop a general system theory is a product of this era. The modern macro era is a systems era, or one of synthesis rather than one of analysis.

For those interested in the development of theory for a particular discipline, writers identify the following benefits from the application of the systems approach:[16]

1. It provides a framework for recognizing all the subsystems and their numerous relationships and interrelationships, that is, an acquisition of knowledge as to the nature of the internal and external environments in which the system operates.
2. It provides an understanding of the proper place and function of each subsystem; that is, the functioning process of the whole system can be conceptualized and studied.
3. The above could provide the means of illuminating and understanding the nature of problems of systems and the methods used in overcoming such problems.

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[15] K. E. Boulding, "General Systems Theory: The Skeleton of Science," *General Systems Yearbook 1* (1956): 11, 17.

[16] This summary reflects the judgments of others. See, for example, Richard A. Johnson, Fremont E. Kast, and James E. Rosenzweig, *The Theory and Management of Systems,* 2nd ed. (New York: McGraw-Hill Book Company, 1967), pp. 367–68, and Hugh J. Miser, "The Environment for Effective Operations and Systems Research," *Management Science 9* (October 1963): 2.

According to these writers (and others cited in this paper) the systems approach can be useful in theory development and can also serve as a tool for purposes of diagnosing a system.

To this writer's knowledge, a general system theory has not yet been formally developed, but numerous "common concepts" have already been identified.[17] If a "unity of knowledge" does exist, and it can be structured at "an optimum degree of generality," then the development of general system theory can benefit many disciplines. The mere process of such a development lends itself to interdisciplinary study, and this could produce the following positive results:

1. Disciplines not having formal theoretical structures could be guided in their search for such a structure. General system theory thereby becomes an efficient means of developing a particular discipline's theoretical framework at a general, basic level.
2. At a minimum, a general system theory should identify "gaps" in a particular discipline's current theoretical structure, and it is reasonable to expect methods for filling these gaps would be discovered.[18]
3. Attention might be directed to new questions and areas of analysis. This could in turn lead, as it apparently has in political science,[19] to the discovery of elements not previously recognized.

In other words, general system theory uses the systems approach to develop a theoretical framework for its "system of systems." Certain basic orienting concepts are needed for this general conceptual framework, and the next logical step is that of "working down" to more specific theories. General system theory assists in the synthesis of a particular discipline's theoretical framework as a relatively high level of abstraction and provides a framework for additional analysis. It lends itself to "learning" and "borrowing" between disciplines and thus tends to eliminate the inefficiencies resulting from organizing nature into disciplines.[20] Compartmentalization or specialization creates a "deafness"

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[17] Young has identified certain common concepts in his article cited previously. See Young, "General Systems Theory," pp. 61–80. The tabulation on page 67 of this paper is also useful.

[18] Boulding has developed an hierarchy of systems in order of complexity which has enabled him to identify "gaps" in empirical and theoretical knowledge of certain areas of study. See Boulding, "General Systems Theory," pp. 14–16.

[19] See O. R. Young, "The Impact of General Systems Theory on Political Science," *General Systems Yearbook 9* (1964): 242.

[20] Ackoff has made a pertinent observation in this regard. He believes that even universities have begun to realize the inefficiencies resulting from a division of labor along disciplinary lines. See Russell L. Ackoff, "Systems, Organizations, and Interdisciplinary Research," *General Systems Yearbook 5* (1960): 6. This

which hinders the transfer of knowledge between disciplines; general system theory could provide "generalized ears" to counteract the deafness.

The following list identifies certain common concepts and confirms that learning and borrowing are already profitable realities:[21]

1. Servomechanisms engage in goal-seeking behavior, and for purposes of study, an analogy to the living organism has been made.
2. Theories in physical and biological sciences have permitted different ways of thinking about psychological problems. More specifically, biology is being studied in regard to problems of change, growth, and development.
3. Communications systems have evolved from information theory developed by engineers.
4. The concept of control is common to physiology, ecology, economics, and engineering — to name but a few fields. Learning and borrowing are almost inevitable.
5. Engineers and biologists find cybernetics important to their fields of study, and even the social sciences apply cybernetics in the quest for formal theoretical frameworks.

Furthermore, this interdisciplinary study has resulted in the emergence of what Boulding refers to as "multisexual interdisciplines."[22] This emergence is the result of reorganization of the material from various disciplines and has produced, for example, cybernetics from electrical engineering, neurophysiology, physics, biology, and economics; information theory from communications engineering; and organization theory from economics, sociology, engineering, psychology, physiology, and anthropology.

Exhibit 2 (which is not exhaustive as to system types) illustrates how

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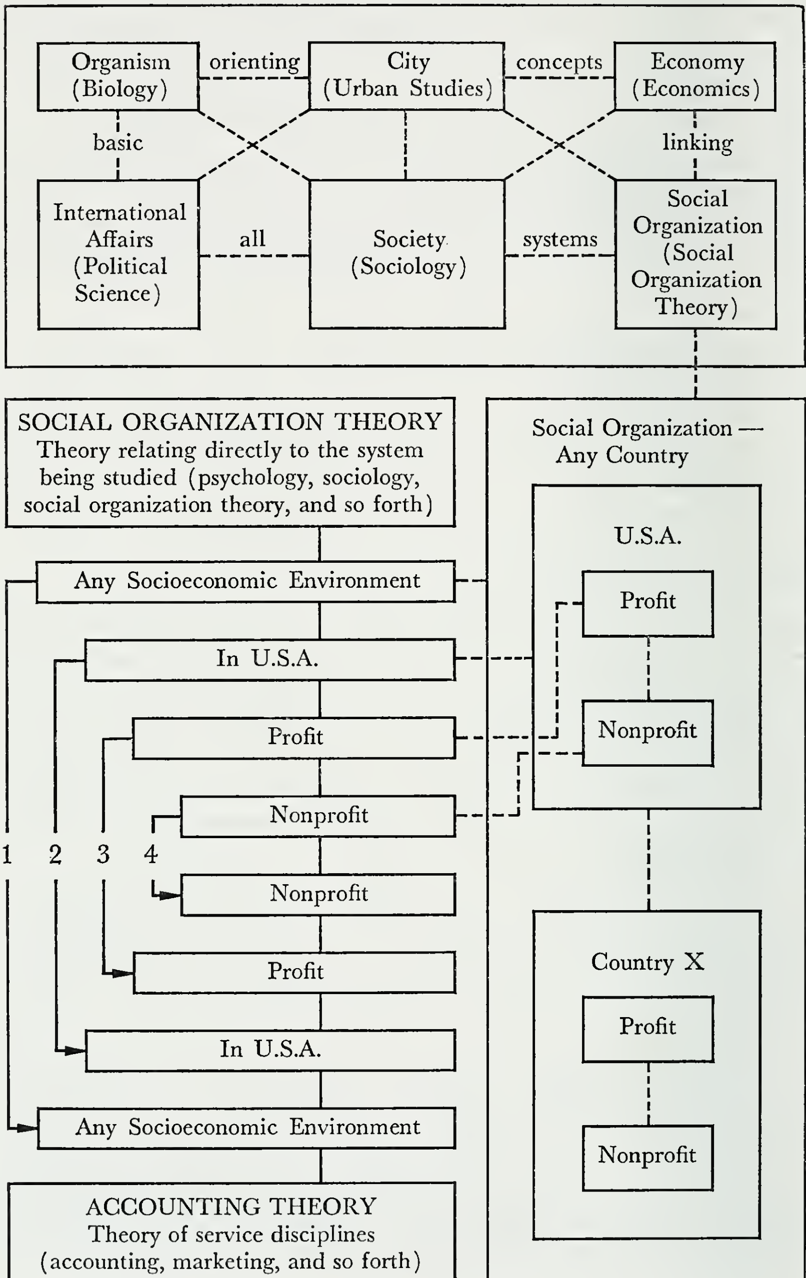
hints of possible implications for education. Greenlaw sees implications for teaching and research. See Paul S. Greenlaw, "Systems Theory and Management Decision Making" (Paper presented at the "General Systems Research," American Association for Advancement of Science Meetings, Berkeley, California, December 30, 1965), p. 1.

[21] This summary is based essentially on observations in Colin Cherry, *On Human Communication* (New York: John Wiley & Sons, Inc., 1957), p. 57; Seymour Levy and Gordon Donhowe, "Exploration of a Biological Model of Industrial Organization," *Journal of Business 35* (October, 1962): 335; Joseph A. Litterer, *The Analysis of Organizations* (New York: John Wiley & Sons, Inc., 1965), p. 235; William T. Greenwood, ed., *Management and Organizational Behavior Theories* (Cincinnati: South-Western Publishing Company, 1965), p. 297; Stafford Beer, "Methodology of Systems," p. 4; and Edgar H. Schein, *Organizational Psychology* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965), p. 4.

[22] Boulding, "General Systems Theory," p. 12.

Exhibit 2.

Accounting in the General System Framework



accounting could fit into the general system framework. The basic orienting concepts of general system theory are used to conceptualize and study social organizations in general. Such study can then be extended by elaborations relating first to social organizations in general, then to social organizations in America, and finally to specific organization types (to the extent that useful differentiating concepts do exist). We can further observe from exhibit 2 that accounting is related to this system (social organization) in a "service" manner and that its theory development is dependent upon the development of social organization theory. This dependency is initially at a general level and then at more specific levels. It is also clear that, because psychologists and sociologists, for example, study social organizations, accounting theory is also dependent on developments in these disciplines. Finally, the exhibit also permits an isolation of accounting theory of a specific country.

Exhibit 3 is a slight elaboration of exhibit 2 and draws attention to the need to identify the link between accounting and organizations. Information must initially be emphasized at a very general level and, therefore, any bias in either "historical cost," "current value," "quantifiable," "verifiable," or "objective" directions is avoided. Exhibit 3 also notes the implication of a unity of function for accounting at the abstract general level; it is only at the lower, more specific, levels that the traditional financial and management segmentations are made.

An important implication for accounting, quite evident in exhibit 3, is that accounting theory construction necessitates the study of the systems to which it is related, identified in the systems approach as organization, groups, and individuals. If the approach of the general system theorists is followed, accountants need to study the organization as a system; this implies the study of its subsystem, that is, groups and individuals. Furthermore, the new conception of system as described above demands that the organization be studied as a living (behavioral), purposive system.

The need for behavioral research is clear at both a macro and micro level. The usefulness of interdisciplinary study is also clear. Once a general structure has been developed from the common concepts and other available knowledge, relevant results of empirical studies in accounting and other disciplines would conceivably find a logical, cohesive place within the structure. It is further conceivable that the structure could identify gaps which could guide empirical researchers. The more elaborate the total structure, the more specifically could such research be guided.

Exhibit 3.

Development of Accounting Theory Using the System and General System Theory Approaches

I. Accounting function, inductively derived: A. Identification of system to which related: social organization B. Nature of function: service (collect, record, and report information)	I. Basic assumptions as to function
II. Study of social organization as a behavioral system (any social organization in any socioeconomic environment)	II. Theoretical statements relating accounting to any social organization in any socioeconomic environment: emphasis on unity of function (system of assumptions, propositions, postulates, concepts, and so forth.*)
III. Study of social organization: A. In U.S.A. 1. Study of groups 2. Study of individuals B. In Country X	III. Specific theoretical elaborations: A. Reporting to external users: financial accounting B. Reporting to internal users: management accounting
IV. Study of profit type social organization: A. In U.S.A. 1. Study of groups 2. Study of individuals B. In Country X	IV. Specific theoretical elaborations: A. Reporting to external users: financial accounting B. Reporting to internal users: management accounting
V. Study of nonprofit organization: A. In U.S.A. 1. Study of groups 2. Study of individuals B. In Country X	V. Specific theoretical elaborations: A. Reporting to external users: financial accounting B. Reporting to internal users: management accounting

* A suggestion is not being made as to the relationship among assumptions, propositions, postulates, and concepts.

The total structure is used to guide specific elaborations, empirical research, and analytical work. In this way it can be seen that synthesis does not eliminate analysis, but rather supplements it. Furthermore, although a general theoretical framework is to be developed, it will not be so general as to be meaningless; the developments at lower specific levels strengthen the general framework.

FURTHER STUDY AND RESEARCH

Exhibits 2 and 3 convey specific ideas as to the order in which we could now proceed. Because of the service nature of the accounting function and the reality of a dynamic environment, the writer agrees with Chambers' statement that "accounting is what it is made."[23] For this reason it would appear necessary that the initial assumption relating to information should be made in as general a manner as possible; for example, "economic" is to be preferred to either "cost" or "current value."

The next step is a study of organizations in any socioeconomic environment; and although organization theory is without a formally integrated theoretical framework, accountants can proceed by identifying common systems concepts and using them in a study of organizations.

The definition of the modern conception of system presented in this paper conveys an idea as to the possible nature of common concepts, as do the writings of those in other disciplines who have used the systems approach.[24] Young's analysis of the literature of eleven disciplines has identified numerous common concepts, and he has summarized them as follows:

1. Systemic and descriptive factors. These include subsystems, boundaries, environment, interdependence, interaction, and integration.
2. Factors relating to the regulation and maintenance of a system. These in-

[23] R. J. Chambers, "Detail for a Blueprint," *The Accounting Review 32* (April, 1957): 213.

[24] See, for example, Ackoff, "Systems, Organizations"; David Easton, *A Framework for Political Analysis* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965); James G. Miller, "Living Systems: Basic Concepts," *Behavioral Science 10* (July 1965): 193–237; Talcott Parsons, *Societies* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1966); Talcott Parsons and Edward A. Shils, eds., *Toward a General Theory of Action* (New York: Harper and Row, 1965); Jurgen Ruesch, "Values, Communication, and Culture: An Introduction," *Communication: The Social Matrix of Psychiatry,* ed. Jurgen Ruesch and Gregory Bateson (New York: W. W. Norton and Company, Inc., 1968); Edgar H. Schein, *Organizational Psychology* (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965); and Ludwig von Bertalanffy, *Robots, Men, and Minds* (New York: George Braziller, 1967), pp. 55–73.

clude stability, equilibrium, feedback, communication, entropy, homeostasis, self-regulation, and control.

3. Factors relating to the dynamics and change of a system. These include adaptation, learning, growth, change, and goals.
4. Factors relating to the decline and breakdown of a system. These include stress, disturbance, overload, and decay.[25]

The need is for a conceptual framework of an organization as a total, dynamically integrated system. Concepts identified above can be used to develop this framework; and they are general enough for use in a study of any system, for example, any organization, group within an organization, or individual within a group.

CONCLUSION

This paper has identified a macro-micro-macro evolution in theory construction in numerous disciplines. The evolution is not as specific in all these disciplines, but in all it is evident that a macro or systems approach is currently being used.

For accounting theory development, the logic of the systems approach would require a study of an organization as a total, integrated, dynamic system, and a statement of assumptions, postulates, propositions, and concepts based on such a study. Furthermore, the approach requires that this initial study and statement be made at a general level. Deductive logic, analysis, and empirical study can then be used to develop more specific theoretical elaborations. The approach can be diagnostic in the sense that, once the general structure has been developed, gaps of knowledge and problem areas can be identified. Such identification can conceivably guide analysis and empirical study.

The writer does not claim expertise in the disciplines examined for purposes of this paper. Evidence as to benefits for theory development can only be presented in the form of statements by scholars who use the systems approach in other disciplines and by the fact that the approach is being used in such disciplines. It is also clear that the endeavors of the general system theorists have encouraged and contributed to the interdisciplinary study of those using the modern systems approach.

For those who are skeptical as to the ambitions of general system theory, it would not be improper to regard general system theory as a frame or attitude of mind rather than a body of knowledge or doctrine. To this extent, this paper might be suggesting nothing more than a new way of looking at old things. The use of Young's concepts listed above

[25] Young, "General Systems Theory," pp. 61–80.

would at least present accountants with a new orientation for theory development — that is, the accounting function as a whole (not only subparts such as management and/or financial accounting), and especially the role of information, would be related to concepts such as environment, interdependence, interaction, equilibrium, regulation and control, change, adaptation, learning, goals, stress, and overload. These would be in striking contrast to the current orientation which appears to be plaguing and hindering theory development. It should at least encourage those who advocate interdisciplinary study, use of deductive logic, unity of function, theory for all organizations in any socioeconomic environment, and accounting for an integrated society.

Accounting in Nationalist China

PHILIP C. CHENG*

International business and investment activities have placed a new burden upon accountants. To cope with the burden effectively, accountants must develop the international outlook characteristic of business and financial circles. Nationalist China,[1] known as Formosa in the West, has recently become one of the most attractive investment opportunities for American bankers and businessmen. This development is due primarily to low wage and overhead costs, low-cost plant sites, social stability, and the enthusiastic efforts of Chinese governmental agencies to assist foreign investors.

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The author is indebted to Mrs. Judy S. Lee (M.S. degree from Northern Illinois University) for her assistance in preparing this paper.

[1] China is an ancient land, a country which in effect has had two governments since 1949. In the mainland China, there is the Communist government of the People's Republic of China, often referred to as Red China or Communist China. Off the mainland, on the island of Taiwan or Formosa, is the Nationalist government, officially known as the Republic of China, sometimes called Nationalist or Free China. In 1949 the Communists drove the Nationalists from the Chinese mainland. The Communist government rules more than 700 million people on the 3.8-million square miles of land, while the Nationalist government controls 1.3-million people on the 14,000 square miles of land. Nationalist China is a member of the United Nations. The United States has never officially recognized Communist China and still considers the Nationalist government as the official government of China.

Much has been written about accounting in the Western Hemisphere and European countries, but relatively little has ever been written of accounting in China.[2] Perhaps the principal roadblocks are the Chinese alphabet and language — a language which very few Western accountants have fully conquered. Even many Sinologists and masters of Chinese literature are unfamiliar with the methods used by the Chinese accountants in their routine operations.

The study of international accounting must expand in accordance with the growth of foreign trade as the earth becomes an ever-narrowing commercial community. International cooperation rarely has a sounder basis than that of international understanding. This paper attempts to further this goal of better communications among nations.

Before proceeding to present the modern accounting profession in Nationalist China, a brief review of the history of accounting in that country will be given. A discussion of the foreign investment opportunities in Taiwan will follow. Numerous income tax aspects will then be given special attention.

AN EARLY HISTORY

China, the world's oldest living civilization, has a written history that goes back more than 3,700 years.[3] The abacus, a counting device, was invented approximately 1,700 years ago.[4] It is still used in the Orient to perform arithmetical operations.[5]

Accounting in China in early days was synonymous with finance, with greater importance being placed upon the latter function than on the former. The cashier and record-keeper were inseparably the same person. Accounting was such a simple task that the sole proprietor himself or his elder son was in charge of the position. If a firm hired a clerk

[2] For the latest discussion of accounting in Communist China, see Paul Kircher, "Accounting Revolution in Red China," *Financial Executive* (February 1967): 39–46.

[3] Loren Fessler, *Life World Library: China* (New York: Time Incorporated, 1963), p. 29.

[4] Joseph Needham, *Science and Civilization in China,* vol. 3 (Cambridge, England: Cambridge University Press, 1959), p. 79.

[5] A typical Chinese abacus consists of a rectangular wooden board with thirteen grooves. To represent a number, seven beads are strung on the wire or tinny bamboo rod on each groove. A crossbar separates the beads, and each groove has two beads above the crossbar and five beads below it. Each of the upper two beads equals five units, and each of the lower five beads represents one unit. The abacus can be used to add, subtract, multiply, divide, and to calculate square roots and cube roots.

to keep its books, considerable effort was made to establish his honesty and integrity since no legal documents normally were retained. The single-entry bookkeeping method was used at that time. Only a cash book, a customers' ledger, and memoranda were maintained according to Chinese style and habits.

Although foreigners had established commercial contacts with China for several centuries before 1842, their trading activities were limited to a reservation in Canton Province and a similar center at the nearby Portuguese colony of Macao. The year 1842 marks the end of this period as in this year five large ports along the Pacific coast were opened by the Chinese government as places where foreigners were permitted to trade and to acquire real estate.[6] Foreign companies and banks established their branch offices in the principal cities along the coast. Since then, Chinese businessmen have maintained continuous commercial relations with foreign nations; as a result, modern concepts of accounting were introduced into China. Many Chinese students, returning from study abroad since the nineteenth century and trained in the new accounting techniques, also played a very important role in bringing this new science into true perspective.[7] As taxation of personal and corporate incomes has become more and more important as a source of government revenues, accounting has become a highly useful tool. This taxation trend has probably accelerated the adoption of new accounting methods.

PUBLIC ACCOUNTING

Modern accounting in China as a profession is relatively new. The development of the accounting profession was influenced in part by the traditions of the foreign accountants coming from western European countries in the latter part of the nineteenth century. When a financial transaction involved some foreign financing, the Chinese participant to the operation was required by custom to employ a foreign auditor to audit the money received and spent. The profession has also been

[6] Emil S. Fischer, "Accounting and Auditing in China," *The Journal of Accountancy* (May 1927): 351.

[7] For instance, a book entitled *Goodwill and Other Intangibles* was the first English accounting book written by a Chinese accountant, J. M. Yang, Ph.D. from the University of Michigan, published by the Ronald Press Company in New York in 1927. Also, Su-Lung Pan, Ph.D. from Columbia University, made a great contribution in modern accounting literature. He wrote and edited a number of accounting textbooks in Chinese a half-century ago. His first publication in Chinese language was a book entitled *Principles of Bookkeeping.*

influenced in part by Chinese students returning from the United States who have introduced many new concepts in recent decades.

The first public accounting legislation in China was enacted by the former Ministry of Agriculture and Industry in 1918. Since then a qualified person under this law is called a Chartered Accountant and is entitled to use the letters "C.A." Because a large loophole relating to the interpretation of the applicant's qualifications existed originally, many applications for the Chartered Accountant certificate were received by the regulatory agency when the first public accounting law went into effect. However, only fourteen of the many applications were approved. In 1921, the first public accounting firm was organized to do auditing work in Shanghai, the largest port on the Pacific coast. In the meantime, the first professional organization in China, the Chartered Accountants Society of Shanghai, was established.[8]

The public accounting law enacted in 1918, which specified the requirements for the Chartered Accountant, has been revised many times. The most important feature of recent Chartered Accountants is their demonstration of technical competence. This competence is evidenced by a college education and success on the Chartered Accountant examination, in which emphasis is placed on accounting and related subjects. The Chartered Accountant examination is administered by the Ministry of Examination of the Republic of China. The Ministry of Examination is a cabinet-level office of the central government, and the minister is appointed by the president. The examination agency of the central government administers all examinations for the government, including professional and civil service personnel.

The Chartered Accountant examination is given once a year. The work of preparing and grading examinations is the responsibility of Chartered Accountant examiners, who are appointed annually by the president of Nationalist China. The members of the examining group usually include government officials, college professors, and prominent practitioners. A Chartered Accountant certificate is awarded by the Ministry of Examination after passing the examination.

The Chartered Accountant examination covers the Chinese constitution, commercial law, economics, public finance, advanced accounting, accounting systems, cost accounting, auditing, and governmental accounting. The examination lasts three days and is usually held every August in combination with the higher civil service personnel examina-

[8] J. Stephen Nom Lee, "Professional Accountants in China," *The Journal of Accountancy* (August 1935): 123.

tions in Taipei, the capital of Nationalist China. This examination is very formally and carefully administered, and to pass it is a great honor to the individual.

The public accounting law, as amended, contains the following main provisions:

1. The applicant for the Chartered Accountant examination should be a citizen of the Republic of China, of good character, and a graduate of a recognized college or university, domestic or foreign, with a major in accounting or commerce.
2. After passing the examination, the Chartered Accountant must register with the Ministry of Economic Affairs before he is allowed to practice. This is a cabinet-level department of the central government, which is responsible for administering and regulating all commercial activities in Nationalist China. Also, the successful candidate is required to join, after approval by the Admission Committee, the provincial Chartered Accountants Society of the geographical area in which the Chartered Accountant intends to practice.
3. A foreign accountant can only be admitted to practice where the alien is a citizen of a country which would also admit Chinese people to practice.

For the most part, a public accounting firm in Nationalist China is characterized by one Chartered Accountant with one or more assistants. Practice in the partnership form is also allowed. Today, the Chinese Association of Chartered Accountants has approximately four hundred members. It publishes a monthly journal, cooperates with governmental agencies in developing accounting principles and auditing procedures, and represents Chinese accountants in international relations.

It should also be mentioned that since 1967 some American firms have established affiliations with Chinese accountants who have organized offices throughout the country.[9] This is attributable to close economic ties with the United States during recent years.

INDUSTRIAL ACCOUNTING

A business enterprise is generally separate and distinct from the persons who supply the assets in use. There are three principal forms of business organization in Nationalist China: the sole proprietorship, the

[9] For example, Haskins & Sells and Lybrand, Ross Brothers & Montgomery have established offices in Taipei, the capital of Nationalist China.

partnership, and the corporation. Accounting theory and principles used by a business are not affected by the form of business organization.

On July 18, 1964, the Chinese Congress — Legislative Yuan — passed the Commercial and Industrial Accounting Act. The law governs accounting concepts and principles as practiced by all forms of business organization. These accounting principles and practices will be discussed in some detail. The influence of the accounting profession on accounting concepts and principles, to date, apparently has not been so great as that of the profession in the United States. The basic framework of accounting in Nationalist China is similar to that in other areas, but there are certain important differences.

The calendar year is customarily used as the fiscal year in all industries; any alternative arrangement is subject to governmental approval. Although a year is generally the longest period of time allowed in making accounting measurements, it is permissible to take measurements over shorter time intervals, such as a quarter of a year or a month. The instability of the purchasing power of the New Taiwan Dollar (N.T. $) is well known. The disruptive effects of inflation on accounting reports during the past decade are acknowledged by accountants, but recognition has not been given in the accounts and in the financial statements to the declining value of the medium of exchange. Revenues and expenses are reported on the accrual basis. Necessary adjustments are made at the end of each year in order to match revenues and expenses. The cash basis of accounting may be employed only in small businesses.

Chronologically, the accounting procedure begins when a business transaction occurs. Accounting records are created as the financial transactions of a business occur. The recording of a business transaction should be evidenced by some written memorandum, a source document. Vouchers are prepared based on these source documents. Three types of vouchers prescribed by law are often in use: the cash receipt voucher, the cash payment voucher, and the noncash transfer voucher. Vouchers are to be filed as permanent evidence of the transactions. Both the source documents and vouchers must be kept for at least five years; and some, because of their important nature, should be kept indefinitely. The law also specifies that the journals and ledgers be numbered and that the chief accountant's signature be placed on the last page of each book.

The financial statements and the sequence of accounts are presented generally similar to the apparent practice in the United States, although there are some differing requirements. Financial statements should be prepared within two months after the end of each fiscal year with a

maximum extension of forty-five days. The annual report, as legally specified, must include the following five statements: the operating report, the balance sheet, the statement of profit and loss, the statement of surplus, and the schedule of properties. Companies are also required to keep journals, ledgers, and financial statements for at least ten years.

An asset is ordinarily entered on the accounting records at its acquisition price paid, and this cost is the basis for all subsequent accounting for the particular asset. When one asset is traded for another, the new asset should be recorded at the fair market value of the asset surrendered; any difference between the fair market value of the asset and its book value should be recognized as a gain or loss. If an asset is purchased on the installment payment plan from a foreign country, the gain or loss due to a fluctuation in foreign exchange rate during the installment payment period should be recognized in the accounts.

The cost concept does not mean that all assets remain on the accounting records at their original purchase price for as long as the firm owns them. The figure for an asset that has a long, but nevertheless limited, life is systematically reduced over the economic life by the process of amortization, depletion, or depreciation, depending on the nature of an asset. In special cases the traditional valuation method may be considered an inadequate means of disclosure. If the wholesale price index rises or declines by 25 percent over a long period of time, assets acquired under conditions of low or high cost may cause an improper portrayal of conditions in financial statements. Under the above circumstances, complete appraisal of assets is allowed, upon the approval of the Ministry of Finance, a cabinet-level department in the central government. The appraisal is taken at the end of a fiscal year.

The Commercial and Industrial Accounting Act specifies penalties imposed for irregularities in connection with the accounting process. Some of the significant features are summarized below.

1. Confinement in jail for up to five years and a possible fine upon conviction for making false entries, destroying accounting records intentionally or altering accounting records.
2. Fines up to N.T. $30,000 (approximately $750) for maintaining no accounting records, destroying accounting book pages, preparing incorrect financial statements, or refusing access to the accounting records to governmental auditors.
3. Fines up to N.T. $15,000 (approximately $375) for using a foreign language or a foreign currency as the basic language or the basic mone-

tary unit in the accounting records, not preparing the annual report on time, or omitting required information in the financial statements.

The above discussion of statutory concepts and rules of industrial accounting reveals the need for trustworthy and well-trained accountants. Ordinarily the accountant in Nationalist China is an asset to the firm, and he usually stays in the profession. However, today the Chinese accountant has, in most instances, little status and finds difficulty in entering the top management of a firm. He is generally considered capable of doing little more than keeping the books, developing the financial statements, and preparing the tax returns. Perhaps the main problem is that family financing usually results in nepotism in management. A company is ordinarily owned by either one family or a group of families.

A secondary problem arises due to the fact that there are two primary sources of education for future accountants. The first source is the university system. It appears that the introduction of new concepts of business administration into the educational system, especially any innovation which may tend to broaden the training of accountants, will require much time and preparation. The other source of education lies in the government and in the financial markets. The securities exchange in Taiwan is still young and small, and this is a complicating factor. The rigor of public inspection of financial statements is not generally present since the majority of the Chinese businesses do not seek public financing. Nationalist China has developed from a primarily agricultural nation into an industrial one with the trend in the direction of heavy industry. Undoubtedly large capital financing should be formulated and obtained from the general public. Although government policy on public financing seems to be readily accepted by the business community and the public, a change in a custom in any country is a difficult task.

FOREIGN INVESTMENT OPPORTUNITIES

The economic growth of Nationalist China in recent years is well known. The government has expanded the volume of foreign trade and has established many new industries which have turned Taiwan from a primarily agricultural land into an industrial one.[10] This progress is attributable primarily to new legislation which has provided investors with a favorable legal climate and accelerated the tempo of the eco-

[10] William D. Hartley, "Promise and Problems: Taiwan's Low Wages Lure Foreign Firms, but Bottlenecks Develop in Public Services," *The Wall Street Journal* (March 27, 1969): 34.

nomic growth. The laws not only encourage the Chinese to invest in various industries but also encourage foreigners to participate in economic development projects in Taiwan.

Some industries are open to foreign investors. These industries ordinarily produce goods and services needed domestically in Nationalist China, and the products are frequently exported to foreign countries. Foreign investors can invest their money by establishing new firms with sole or joint capital investment ventures or by expanding an existing business organization through the additional investment of capital. They are allowed to buy stocks or corporate bonds, although the stock exchange in the capital of Nationalist China is young and comparatively small. Foreign loans are also welcomed by the government.[11] Furthermore, aliens can provide their inventions or patents to the Chinese business enterprise as a capital investment.

Wage and overhead costs in Nationalist China are well below those of Hong Kong and Japan, although wages are currently following the rising pattern familiar currently in other economies. Experts expect the wage rates to double in five years. The present average daily wage is approximately eighty cents to one dollar.[12] With these low wages, even a sharp rise would probably not cause foreign investors to leave. Labor strikes are not uncommon in the United States. Chinese workers in various industries are unionized, but any type of labor disturbance is prohibited. This social stability, a zealous labor force, good transportation, an ample water supply, and the low power cost cause Taiwan to be one of the most attractive international investment areas.[13]

In addition, there are enthusiastic efforts by the Chinese government to assist investors. Manufacturers are allowed to import machinery and raw materials or components without payment of custom duties and

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[11] The U.S. Export-Import Bank recently authorized a 6 percent, fifteen-year, $79.9-million loan to Nationalist China for a nuclear power plant. The equipment will be manufactured by General Electric Company and Westinghouse Electric Corporation. A group of Japanese banks will lend approximately $20 million to Nationalist China for Japanese-manufactured equipment for the same project. For details, see "U.S. and Japan to Finance Taiwan Nuclear Plant to Cost $157.5 Million," *The Wall Street Journal* (August 13, 1969): 14.

[12] Hartley, "Promise and Problems," p. 34.

[13] For example, Ford-Philco has presently an electronic component plant in Taiwan, Socony Mobil and Allied Chemical are partners in a urea fertilizer plant, American Cyanamid has a pharmaceutical plant, Mattel a toy plant, Proctor and Gamble a detergents plant, and Motorola and Zenith have investment projects under construction. Also, the Bank of America, the Irving Trust Company, and the Morgan Guaranty Trust Company of New York have branches there.

can export finished products with a minimum of red tape and fees.[14] Investors are offered a five-year business income tax holiday starting from the date of plant operations. Income derived from plant expansion can also qualify for the five-year tax exemption. Exporters are entitled to deduct 2 percent of the annual export earnings from the taxable income, and all export transactions are free from a business transaction tax.

A knowledge of foreign exchange accounting is considered helpful for today's accountant to interpret and handle the diverse foreign exchange problems that currently exist. Nationalist China is one of the nations which has limited or blocked the exchange of money or its transfer. For the purpose of encouraging foreign investment in Taiwan, however, the Chinese government has a special law, the Statute for Investment by Foreign Nationals, which provides certain privileges to overseas investors. There are no restrictions on outward remittances of profits or interest accrued from overseas investments in Nationalist China provided that the payment of a 10 percent income tax has already taken place. A foreign investor may repatriate annually 15 percent of the total amount of his invested capital beginning two years after the completion of his project.

INCOME TAX FEATURES

Due to the intricacies of income determination, it is inevitable that accounting and income taxes should be closely interrelated. An understanding of any but the simplest aspects of income taxes is almost impossible without some knowledge of accounting concepts. In turn, income taxes have influenced accounting practices to a significant extent. One of the main concerns of accountants is tax minimization. Income tax laws and regulations, which change frequently, should be studied continuously by the accountant.[15] The income tax system in Nationalist

[14] Custom duties may be exempted for machinery or equipment imported by an enterprise engaging in such industries as basic metals, electrical and electronics, machineries, transportation equipment, fertilizers, or petrochemicals, provided that the paid-in capital of such industries is over N.T. $90,000,000 ($2,500,000) and the machinery and equipment are imported in accordance with plant construction plans approved by the government and for the investor's own use. Customs duties for machinery or equipment imported by other industries for their use may be paid in installments beginning from one year after the start of production or rendering services.

[15] The Taxation Reform Commission, a cabinet-level unit, was organized in 1968. The members of the organization consist mainly of the American-educated economists, and they probably will have a substantial influence on reforms of the present federal income tax system.

China, as in the United States, can be classified as those relating to individual income taxes and business income taxes. For any individual having income from sources in Nationalist China, the individual income tax will be imposed upon the income of any business organization derived from within that territory. The two types of income taxes are discussed below.

The individual income tax is assessed on the individual's gross income minus his personal exemption, an allowance for dependent support, and various deductions. The gross income of an individual is the aggregate of the following categories of income for the calendar year: (1) salaries and wages; (2) interest, dividends, bonuses, and profits; (3) income from lease or royalties; (4) income from self-employment in farming, fishery, animal husbandry, forestry or mining, minus necessary business expenses; and (5) income from professional services minus related business expenses.

The following categories of income are exempted for tax purposes: (1) pay of military personnel in active service; (2) salaries of teachers and employees of nurseries, kindergartens, and elementary schools; (3) compensation for death, disability, or injury; (4) pensions and retirement payments; (5) housing allowances received from the government by teachers, military, and civil service personnel; (6) interest on long-term investments of two years or more, or on savings deposits in banks; and (7) salaries paid by foreign governmental agencies or educational institutions to foreign technicians and professors of colleges and universities for services rendered in Nationalist China under the technical cooperation or cultural exchange agreement.

Each taxpayer is entitled to at least one personal exemption of N.T. $7,000 ($175) and an additional exemption of the same amount for his spouse. An allowance for dependent support of N.T. $6,000 ($150) is deductible for the support of each dependent who is supported by the taxpayer and is incapable of earning a livelihood because of old age, school attendance, or physical or mental disability. In addition, the taxpayer is allowed numerous itemized deductions, such as property taxes, charitable contributions, life insurance premiums, medical expenses, disaster losses, and losses from property exchanges. Rather than itemize deductions, a taxpayer may elect to claim a standard deduction of 10 percent of his gross income. The maximum standard deduction is N.T. $5,000 ($125) for the taxpayer.

The Chinese individual income tax is progressive, with general agreement that the rate structure is steeply progressive. Rates range from

6 percent for the annual taxable income below N.T. $30,000 ($750) to 60 percent for all taxable income over N.T. $2,000,000 ($50,000). The tax rates are frequently changed by the government, but the progressive rates are a permanent feature of the income tax system.

The taxable income of a business organization is determined in much the same manner as that of an individual taxpayer. Gross income less allowable deductions equals taxable income, but some special rules relate to the amounts to be included. For income tax purposes, every business organization should maintain at least two principal accounting books: the journal and the ledger. In the case of a manufacturing concern, various kinds of cost records should be kept.

Inventories should be valued at cost, which includes not only the purchase price but also any additional costs necessary to place the goods into condition for sale. When this cost is higher than the market value, the taxpayer may take the market value as the basis of valuation. Cost may be either the actual cost or the cost arrived at by the first-in–first-out, last-in–first-out, weighted average or simple average method.

Fixed assets should be valued at cost less depreciation. The straight-line method, the declining-balance method, or the production-hours method may be adopted for tax purposes. Goodwill and other intangibles can be recorded only if they are acquired by purchase. Such intangible assets should be valued at cost less amortization.

When a substantial rise in the general price level is viewed as permanent, the taxpayer is allowed to revalue the fixed assets with the approval of the Ministry of Finance. The depreciation charge for the current year may be raised from the original depreciation amount in proportion to the ratio between the wholesale index in the year of acquisition of the fixed asset and the same price index in the current year. The difference between the original depreciation charge and the appraisal depreciation amount should be set aside as a reserve for compensation for fixed assets appreciation. Two formulas for use in the computations are stated below.

1. *Reserve for compensation for fixed assets appreciation*

$$= \text{Original depreciation} \times \left(\frac{\text{Wholesale index in current year}}{\text{Wholesale index in year of acquisition}} - 1 \right)$$

2. *Reserve for compensation for fixed assets appreciation*

$$= \begin{matrix}\text{Depreciation after increment} \\ \text{through revaluation}\end{matrix} \times \left(\frac{\text{Wholesale index in current year}}{\begin{matrix}\text{Times of} \\ \text{increment}\end{matrix} \times \begin{matrix}\text{Wholesale index in} \\ \text{year of acquisition}\end{matrix}} - 1 \right)$$

The first can be used to compute a depreciation reserve prior to the appreciation, and the second can be used to calculate the depreciation reserve after the revaluation has taken place.

If a firm has foreign liabilities resulting from the purchase of machinery and equipment for its own use and has contracted to make payments in the foreign currency at the prevailing exchange rate, it is allowed to establish a special reserve for exchange rate fluctuations. The exchange loss reserve should not be greater than 7 percent of the outstanding amount of the debt. The amount of reserve is deductible for tax purposes.

Interest payable on capital is considered a distribution of profit and may not be listed as an expense. Interest payable on loans within the taxable year is deductible; major repairs and plant improvements are not deductible. Contributions and donations not related to the business are not considered as expenses, unless the payments are made for assisting national defense construction, for entertaining troops, for promoting public welfare, or for educational institutions. The allowable deduction, with the exception of those made for assisting national defense and entertaining troops, should not exceed 30 percent of the annual income. The amount of retirement payment in excess of the pension reserve may be considered as an expense, while installment payments for retirement not included in the pension reserve provision should be considered as an expense of the payment year.

Any newly established firm must file an application for registration on a prescribed form within fifteen days of the commencement of business with the local tax authority. Every firm is required in July of each year to estimate the annual business income for the current year and to pay one-half of the estimated tax. The taxpayer must, within two months from the first day of February of each year, file an income tax return for the preceeding year regardless of the amount of income the firm received. Failure to receive the forms from the tax authority or failure to maintain adequate records does not relieve taxpayers of their legal obligation to file an annual tax return and pay the amount due. Willful failure to comply with the tax laws and regulations may result in the imposition of severe penalties, both civil and criminal.

The rate structure that applies to business organizations is distinctly different. The first N.T. $20,000 ($500) of taxable income is tax free. The taxable income between the N.T. $20,000 and N.T. $250,000 ($6,250) is assessed on three different rates. All taxable income in excess of N.T. $250,000 is subject to the 25 percent rate; but the income

tax of certain industries, under the categories encouraged by the government, should not exceed 18 percent taxable income.

The income tax system somewhat parallels that of the federal tax structure in the United States. The tax structure in both countries has contributed to the growth of the accounting profession. Tax revenues in Taiwan take up 21 percent of the national income, a sum considerably below that in some developed countries. The government has recently been revising the tax structure with emphasis on the collection of direct taxes. The economy of Nationalist China has grown at a rate of 11 percent for the past few years, and this national economic growth trend is continuing.[16]

CONCLUSION

With the rapid expansion of foreign, as well as domestic, trade in the American economy in recent years, there has been an increasing need for information on international accounting. The growing economy has caused, and has been accompanied by, an increasing complexity and a physical growth in the accounting profession.

The economy of Nationalist China is on a path of rapid expansion, and the accounting profession has gradually come to play an important role in the nation's growing economy. By attempting to change an agricultural nation into an industrial one, the nation has experienced a development in its accounting profession which should be of interest to other countries.

The growth of the Chinese accounting profession is closely related to the legal requirements on business enterprises and the complex tax structure. The country has, for the most part, put the accounting profession into the background for many years. With the fast economic growth and increasing foreign investments in Taiwan, financial data have become more important to numerous users, and Chinese accountants and international accounting firms must face the new challenge of future accounting education. Sound professional training is a keystone to the building of a sound accounting profession in Nationalist China. The preceding discussion provides a comprehensive framework within which the accounting profession should grow in Nationalist China as economy and business progress in the future.

[16] For more information on the economy of Nationalist China, see *News Map of the Week 32,* no. 37 (May 4, 1970).

Developing Nations and Tax-Ordained Accounting Principles—The Swedish Model

ALBERT P. AMEISS*

That the newly emerging nations have accorded accounting an important role in their central planning process for expansion in industry and agriculture is an observation made by David F. Linowes, adviser to both the Department of State of the United States and the United Nations. After participation in projects in Pakistan, Iran, and Turkey under the auspices of the United Nations Industrial Development Organization, Mr. Linowes concluded that the scope of accounting must be broadened by the leaders of the accounting professions in the newly emerging countries if national goals of industrial and agricultural development are to be obtained within the target dates.[1]

Because of the inadequacy of their accounting systems and the lack of a generally accepted body of accounting rules, these governments have realized that only through legislation can a professional accounting profession emerge and assume appropriate responsibility for the development of adequate accounting information to meet national planning needs.[2]

How these needs are defined in terms of national goals, therefore, is essential to determine how the discipline of accounting can contribute.

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[1] David F. Linowes, "The Role of Accounting in Emerging Nations," *The Journal of Accountancy* (January 1969): 18–19.
[2] Ibid.

Is accounting to be subordinated to tax-ordained accounting principles which may be successful in motivating investment in the country through tax concessions? Would such tax incentives lead to the employment of otherwise idle pools of skills or potential skills and/or the more rapid development of natural resources? If so, what are the pitfalls confronting the practice of accounting which the fledgling accounting professionals must anticipate if it becomes their legislated responsibility to tailor accounting practices to accommodate central planning and decision-making?

Accounting provides essential keys both to the measurement of available resources and to the control of their use. Since a nation seeking rapid development tends to rely on centralized national planning for the allocation of basic resources to stated national objectives, accounting can make a significant contribution to the achievement of such goals.

In this context, the newly emerging nations may profit from the experiences of more mature economies which have used accounting as a tool of national policy. Both desirable and undesirable features of this utilization of accounting are to be found in Sweden whose accounting principles have become, in effect, instruments of Swedish national stabilization policy.

Data regarding such Swedish accounting practices and the underlying reasons were obtained by the writer through a questionnaire sent both to United States parent companies with Swedish subsidiaries and to certain subsidiaries directly. Findings of this survey were evaluated through comparisons with generally accepted accounting principles of the United States.

A major objective of this paper will be to demonstrate that while accounting can be an integral part of the central planning process in the newly emerging nations as it has been in Sweden, such planning can defeat the purposes of sound principles of accounting even though it may accomplish its national objectives, as is apparently the case in Sweden. This leads to the second objective: to show the need for a strong, active, and continuing role by the professional accounting organization, whether it be in the newly emerging nations or in stable, established economies, such as Sweden.

The impact of Swedish legislation on balance sheet presentations and on the "leveling" of reported earnings from year to year will be illustrated by considering the following issues: (1) Swedish inventory valua-

tion practices; (2) Swedish investment reserves for economic stabilization; and (3) the legal reserve provision.

SWEDISH INVENTORY VALUATION

Specific reference to Swedish inventory procedures and valuation in a question of the author's survey was made as follows:

(1) It is noted that Swedish tax legislation of 1965 contains the ruling that inventories cannot be carried on the books at less than 40 percent of cost or actual value, whichever is the lower. (2) A complementary rule permits the use of the average value of the cost price or actual value of the two preceding years, if this method is more favorable. (3) A special supplementary rule may be used for the evaluation of inventories of raw materials and staple commodities, if this gives a lower book value than the rules mentioned above. Such inventory assets may be carried on the books at the lowest market price prevailing during the income year, or in any of the nine previous years minus 30 percent. Does your Swedish subsidiary avail itself of the provisions of (1), (2), or (3)? (4) Do you agree in principle with the use of such inventory methods which state inventory materially below cost — in the case of your Swedish subsidiary?

Acceptance was indicated by Swedish subsidiaries of practices discussed in items (1) through (4), confirming the findings of Ebbe Rybeck, prominent Swedish public accountant.

Speaking for his 2,500 to 3,000 clients, E. Rybeck observed that a high degree, probably more than 90 percent, avail themselves of the provisions of (1) to (3). The provision in (3) is probably used only by a few companies doing business in staple commodities. The companies agree in principle with the use of inventory methods, which state inventory materially below cost. The reason is that these companies get an interest-free tax credit.[3]

An obvious result of this practice is the distortion in both the income statement and the balance sheet because of the "secret reserves" which result due to the undervaluation of inventories. Disclosure of the amount of undervaluation is not required in Swedish balance sheets although information *on changes* in such reserves must be furnished if due to changes in the principles of valuation and if the net income is materially affected.

Illustrative of the potential distortion to income determination is the fact that the application of the 60 percent reduction rule can be used not only to "equalize" reported net income from period to period but

[3] Ebbe Rybeck, letter dated February 15, 1967, Bohlins Revisionsbyra AB, Karlavagen 53, Stockholm 5, Sweden.

can actually produce a negative inventory value. The determining factors are the two prior ending inventories; should there be a net credit balance in the inventory account, it would be shown on the credit side of the balance sheet.

In addition, Sweden's income tax law requires that such tax-computed inventory valuation also be recorded on the official corporate books if the tax deductions motivating such write-downs are to be realized.

An example of the above possibility was advanced by Price Waterhouse & Company as follows:

Inventories at the lower of FIFO or replacement cost, less obsolescence:

At December 31, 1961	S. Kr.[4] 500,000
At December 31, 1960	S. Kr. 600,000
At December 31, 1959	S. Kr. 800,000

The comparable figure is the average of S. Kr. 600,000 and S. Kr. 800,000 or S. Kr. 700,000. Thus the inventories at December 31, 1961 may be priced at S. Kr. 80,000 (S. Kr. 500,000 less 60 percent of S. Kr. 700,000 — the average of the ending inventories of 1959 and 1960 — amounting to 420,000, which is subtracted from the 1961 inventory).

If, in the above example, the inventory FIFO/replacement cost less obsolescence had been S. Kr. 400,000, the taxpayer would be allowed to record his inventories as a credit item of S. Kr. 20,000.[5]

In describing contemporary Swedish inventory valuation practices, Professor Pier V. A. Hanner of the Stockholm Institute of Economics indicated that most leading Swedish companies report a value for stock-in-trade that is much — often 50 percent or more — below present replacement costs. But it is usually not possible for anyone outside the company to know its inventory position exactly as the law does not require companies to make their methods of valuation public. The Swedish Companies Act of 1944 prescribes only that material changes in the principles of valuation shall be mentioned in the annual report of the company, but this may be done in a fairly general way without giving detailed figures on the effect of such changes.[6]

COMPARISON WITH UNITED STATES INVENTORY ACCOUNTING PRINCIPLES

By contrast with Swedish legislation permitting a 60 percent inventory write-down for tax purposes, *Accounting Research Study Number 7,*

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[4] Swedish Kronen.

[5] Price, Waterhouse & Company, *Sweden — Information Guide for Those Doing Business Outside the United States of America* (November 1961), p. 23.

[6] Pier V. A. Hanner, "Accounting and Taxation in Sweden in Relation to the Problems of Inflationary Profits," *Accounting Research* (January 1950): 258.

of the American Institute of Certified Public Accountants, indicates that a departure from the cost basis of pricing inventory is warranted only when the utility of the good is no longer as great as its acquisition cost. The difference is recognized as a loss of the current period, and the inventory is stated at a lower level commonly designated as market.

An analysis of Sweden's economic history indicates that both her own experiences and those of her central European neighbors have created in Sweden an extreme concern for cyclical movements in enterprise economics during the last few decades. Later sections will demonstrate that the national economic policies of Sweden reflect a desire to "smooth out" business cycles to the greatest extent possible and to insure the maintenance of the economic substance of her enterprise organizations.

Critics have alleged that the concepts of sound accounting are being sacrificed to accomplish Swedish stabilization goals. But Sweden's anticyclical investment fund legislation permits the timing of fixed asset acquisitions to prevent unemployment in different parts of Sweden at the discretion of the central government rather than the corporation involved. This provision may be of real interest to developing nations, particularly those with staggering problems of unemployment and rich but undeveloped natural resources because of insufficient capital.

Swedish stabilization policies find full expression in the principles of taxation. Inventory and capital replacement reserves, discussed next, can be created in profitable years with a view toward use during less profitable periods. Substantial secret reserves in the balance sheet are permissible, as a hedge against possible future business reserves as indicated in the next section.

SWEDISH INVESTMENT RESERVES FOR ECONOMIC STABILIZATION

In this context, a survey question was phrased as follows:

1. According to current Swedish tax provisions, corporations may make tax-free annual allocations to anticyclical investment funds, amounting to a maximum of 40 percent of net profits. Has your subsidiary availed itself of this provision?
2. Do you agree in principle with such tax-free allocations for entry on the books as well as tax-wise, for your Swedish subsidiary?

The response in terms of percentages was unanimously negative for item 1 and only slightly better for item 2 for which 11 percent were in agreement, and 89 percent of the respondents were opposed.

Most United States respondents to the survey indicated opposition

to Swedish stabilization provisions. Some did not respond to this question, although they did answer others. Both the large negative vote and the number abstaining from voting suggest a lack of information on the part of the United States respondents concerning Swedish anticyclical investment fund provisions. To explore this topic further, a closely allied question was included in the survey with regard to the procedures involved, as reported below.

PROCEDURES REGARDING ANTICYCLICAL INVESTMENT FUNDS

The survey question which referred to the procedures involved in the use of Swedish anticyclical investment funds was:

In conjunction with the Swedish anticyclical investment fund provision, it is noted that the labor market board may consider it desirable to stimulate investments and may therefore authorize Swedish corporations to use the investment fund for specified purposes, that is, various fixed assets. Amounts so used are not restored to taxable income and the corporation receives an additional "investment deduction" from taxable income of 10 percent of the fund used. However, when an asset or expense has been charged to the investment reserve, no depreciation or deduction is allowed. Would you indicate the experience of your subsidiary with this provision? (1) Do you agree in principle with this provision for your Swedish subsidiary?

In answer to this question, 12 percent of the respondents were in agreement; but 88 percent, primarily United States accounting executives, disagreed in principle with this provision. Some background material appears in order here to explain the reasons for the existence of Swedish investment fund provisions. The present system of investment reserves was introduced in 1955 as a potential compensation for the loss of free depreciation previously available at the discretion of Swedish industry.

The main reason given for the abolishment of free depreciation may also be of value to new nations studying the potential impact of rapidly accelerating or completely free depreciation. Conflict between the government's goal of pursuing a contracyclical and anti-inflationary investment policy and the effect of free depreciation on private business investments was largely responsible. Fixed assets were financed internally to a very large extent during the postwar period and were stimulated by Sweden's system of free depreciation, particularly during boom periods.[7] Business enterprises received the advantages of free depreciation

[7] Sven-Erik Johansson, "An Appraisal of the Swedish System of Investment Reserves," *The International Journal of Accounting Education and Research* (Fall 1965): 89.

on capital investments if made during periods in which the Swedish government wanted to increase the rate of investment and employment, either locally or for the entire country.

The following stipulations with respect to investment reserves provisions are included in the Swedish Companies Act of 1944.

(1) An amount equalling 46 percent of the appropriation must be deposited to a special blocked, non-interest bearing account with the Swedish Central Bank. To the extent that the reserve is used for its intended purpose or is reported as taxable income, the related part of the deposit is released; (2) after five years, 30 percent of the reserve may be used for its intended purposes without special permission; (3) with the exception noted in (2), the reserve may only be used with approval or on instructions from the Labour Board; and, (4) in cases of projects which require a longer time to complete the Government can decide that an investment reserve be used over a longer period.[8]

ACCOUNTING TECHNIQUES INVOLVED

Accounting techniques involved in the creation of Swedish investment reserves include the creation of the reserve by debiting profit and loss and crediting the "investment reserve" account. The allowance for this reserve is entirely deductible for tax purposes, provided that an amount equal to 46 percent of the total investment reserve is deposited at the Riksbank. This transaction is recorded as a debit to the blocked cash account and a credit to general cash.

When part of an investment reserve is utilized, a corresponding part of the blocked cash account is released. If the investment is in new machinery, building, inventory, or mining development, it may be written off against the investment reserve in the appropriate amount.

Comments from United States parent companies indicating the experiences of their subsidiaries with the Swedish anticyclical investment fund provisions included that of the California Texas Oil Corporation which is indicative of others. The opinion was voiced that if the tax-free allocation were made, the recording of this provision would amount to a segregation of surplus and of cash. To the extent that cash is deposited to the "fund," it would be recorded and sufficient disclosure would have to be made in the financial statements. The portion of the fund which need not be deposited would be included in working capital, and prudent management would insure that sufficient funds would be available to meet any call by the Labor Market Board.

The approximate 5 percent tax saving plus probable interest on the

[8] Price, Waterhouse & Company, *Sweden,* p. 29.

required deposit of funds did not appear to this respondent to be a sufficient incentive to relinquish the right to invest in the *type* of asset needed by the business and the right to determine the *timing* of such investments.[9]

Sven-Erik Johansson stated that it may be impossible to give any quantitative effects but that one point is definitely clear — the effect has been mainly on the *timing* of investments which implies a realization of investment plans at an earlier date.[10] This may be what the government considers to be most desirable, as suggested by the Stockholms Enskilda Bank in the following quotation:

> All parties concerned acknowledge that the maintenance of full or almost full employment is a primary aim of Swedish economic policy. To achieve this goal special importance is attributed to an active labor market policy. . . . Each year the Labor Market Board presents the Government with a public investment reserve budget including projects suggested by the Central Government and by the local authorities which can be started at short notice to combat unemployment. . . . Attempts have also been made, particularly since the late fifties, to lessen the fluctuations in private investment in industry by making use of the anticyclical investment funds.[11]

One limitation of the system is that it can be used as an investment incentive only for firms which, voluntarily, have created investment reserves. It has been alleged that such investment reserves are normally created only when all other means of reducing taxable income have been exhausted.

The importance of the investment fund technique as an instrument of stabilization policy is that it is credited with having helped Sweden overcome lagging investment and unemployment during the worldwide economic recession of 1957–1958.[12]

A number of Swedish respondents reported agreement with the Swedish anticyclical investment fund provision. For example, Standard Radio & Telefon AB described the practice from a governmental point of view as an effective instrument to influence the investment policy of the corporations and by such means to "level" the business cycles.[13]

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[9] California Texas Oil Corporation, letter dated January 27, 1967, signed S.F.M. Alford, 4.
[10] Sven-Erik Johansson, "Appraisal of Swedish System," p. 78.
[11] Stockholms Enskilda Bank, *Some Data about Sweden, 1965–66* (April 1965), p. 108.
[12] G. C. Mueller, "Accounting Practices in Sweden," (Ph.D. diss., University of Washington, Seattle, 1962), p. 17.
[13] Standard Radio & Telefon AB, letter dated March 8, 1967, signed by F. Hannar, p. 2.

Also agreeing in principle with the investment fund provision was O. Setterblad, a professional Swedish accountant who observed that the investment funds are motivated by reasons of political economy to give the government an instrument to guide the economy and that this instrument appears rather effective. From the individual company's standpoint, he felt that the Swedish Companies Act of 1944 creates a possibility of temporary taxation advantages and by applying good accounting practices, full disclosure of the effect on annual profits could be accomplished.[14]

E. Rybeck, cited earlier in this article, responded to this issue by stating that the anticyclical investment funds have become substantial in Sweden and have been used in many cases in order to prevent unemployment in different parts of Sweden and to improve certain branches of industry. He indicated that the Swedish companies in his clientele "have complied with the provision and the experience is good."[15]

EVALUATION — COMPARISON WITH UNITED STATES PRACTICE

The economic intent of the United States Revenue Act of 1962 appears comparable to that of the Swedish system of investment reserves with respect to the timing of fixed asset investments. As to the impact on American financial statements, compared with that of the Swedish investment reserve system on Swedish statements, significant accounting differences are apparent.

Swedish investment funds are used to stimulate investment in trough periods of the business cycle. Amounts are added to a fund which is tax deductible in the year the provision is made. When all or part of a fund is used, any costs so charged are not available for depreciation or other deductions from income. Therefore, although double deductions are avoided, the accounting period concept is violated. The result is that a leveling of reported income from year to year and of accruing tax liabilities has taken place.

Provisions of *Accounting Research Study Number 7* indicate that contingency provisions and reserves should not be misused as a means of arbitrarily reducing income or shifting income from one period to another. An important objective of income presentation is the avoidance of any practice that leads to income equalization.

The point is made that if a provision for a reserve, made against

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[14] Oscar Setterblad, Accountant, Nacka, Sweden, letter of February 15, 1967, for his client, Packard Instrument AB.

[15] E. Rybeck, letter dated February 15, 1967.

income, is not properly chargeable to current revenues, net income for the period is understated. In addition, if the reserve is used to relieve the income of later periods of charges that would otherwise be applicable, the income of such periods is also incorrectly reported.

In the same *Accounting Research Study* a stand was taken against the inclusion in net income of charges or credits relating to reserves created for general contingencies or created without regard to any specific loss of the current period. Reserves are proper if created by a segregation or appropriation of retained earnings. However, no costs or losses are to be charged to the reserve and no part of the reserve is to be transferred to income or used in any way to affect the determination of net income for any year.

Management's responsibility is also emphasized in the above study for the determination of net income as fairly as possible by sound methods consistently applied. Charges in the current income statement are to be made for all foreseeable costs and losses to the extent that they can be allocated reasonably to periods.

Professional accountants of the newly emerging nations will be well advised to defend the stand taken in *Accounting Research Study Number 7,* notwithstanding the temptations to the national central planning agencies to use investment fund provisions of the Swedish type for similar national goals.

SWEDISH LEGAL RESERVES

In addition to investment reserves, Sweden utilizes the concept of "legal reserves" referred to in the following question of the author's survey:

The Swedish Stock Companies Act stipulates the creation of a "legal reserve," representing a statutory equity reserve, which must be set aside from earnings as a means of providing companies with a degree of financial stability. Ten percent of the annual net income must be added to the legal reserve, until the total amount in the reserve has reached 20 percent of the outstanding capital at par. The legal reserve can only be used to cover losses after all other reserves have been exhausted and is available, under certain conditions, for reductions of outstanding capital and other reorganizations. (1) Has this provision been of practical value to your subsidiary?

Only 9 percent of the respondents to this question reported practical value from this provision.

The Swedish legal reserve is in the nature of a statutory equity reserve, existing for the purpose of covering losses which cannot be met

in any other way. If total liabilities, as defined in the Swedish Companies Act of 1944, exceed the sum of the legal reserve and the capital stock, the company must provide a "supplementary legal reserve." A restriction is imposed on the payment of dividends from current earnings when circumstances require provision of a supplementary reserve. Only 5 percent of net worth, plus one-half of all earnings remaining after provisions for statutory reserves, is available for dividends.

The above act also provides for dissolution of the supplementary reserve when net worth exceeds legal liabilities and specifies to what extent and in what manner the reduction in such reserve may be treated. Paragraph seventy-two of the act specifies that any defined excess of liabilities over net worth requires the setting aside of a special 10 percent reserve out of annual net income. Since this reserve accumulates as part of net worth, it eventually limits itself by forcing the debt-equity ratio below unity.

Interesting and contrasting philosophical concepts between Sweden and the United States become apparent with respect to the purposes of the Swedish legal reserve fund. Since the United States does not have legal requirements for the establishment of such reserves, this practice appeared strange and unnecessary to some United States respondents. Other corporations in the United States viewed the Swedish requirements as a method of ensuring the protection of creditors by segregating retained earnings into two parts, one from which dividends can be paid and the other which is unavailable for dividends serving to protect the rights of creditors.

The basic question appears to be whether or not legal requirements constitute the best way to prevent capital impairment and to ensure creditor protection. Obviously, when a reserve becomes a matter of law, it is necessary to specify percentages, both as to annual deductions and as to overall amount. Then the question arises as to whether the Swedish 10 percent of annual net income is adequate.

In the United States it may be considered more properly a management function than a governmental one to insure the retention of sufficient earnings to keep working capital at a proper level and also to protect creditors. The United States philosophy appears to be that the flexibility of a nonlegislated approach, combined with adequate disclosure in financial statements, can achieve a sounder financial environment in the long run.

Such convictions were expressed in response to the survey by United States respondents. But others felt that legal reserves were justified in

the circumstances of many countries.[16] Again, the newly emerging nations of the world might find such Swedish legal requirements for reserves to be most advantageous to prevent the impairment of capital in young, growing industries where capital is at a premium.

RECENT RECOMMENDATIONS OF PROFESSIONAL SWEDISH ACCOUNTING ORGANIZATIONS

Earlier paragraphs of this article cited the need for action-oriented professional accounting organizations in foreign countries where questionable accounting practices exist, regardless of the reason for their existence. Such practices in Sweden, noted in this article, include income-leveling procedures involved in inventory write-downs and the creation of investment reserves.

However, Swedish organizations have been active in seeking improvements. L. A. Theorin, of Peat, Marwick and Bohlins, AB, Authorized Public Accountants, Stockholm, Sweden, described recent recommendations made with respect to the disclosure of inventory reserves on financial statements of companies listed on the Swedish Stock Exchange. These were prepared by Swedish professional organizations including the Stock Exchange Committee of the Stockholm Chamber of Commerce and the Swedish Manufacturers Association and dated October 9, 1968.[17]

With respect to investment reserves, the committee recommended that such reserves be shown in the balance sheet under the heading, "Untaxed Reserves," and that movements in these reserves be shown in the income statement after the subtotal "profit before movements in reserves and before taxes." In addition, "normal" depreciation was to be based on *all* assets used in the trade or business, including those written off by use of the investment reserve or expensed because the asset's economic life was estimated at less than three years.

Moreover, the committee recognized that depreciation "calculated in accordance with the tax legislation does not always result in a fair charge against income during the period in which the assets are used." Therefore, the recommendation was made that companies listed on the stock exchange calculate their normal depreciation charge based on the cost of the assets and their expected useful life. This depreciation is

[16] Corn Products Company, letter of December 6, 1966, signed by James W. McKee, Jr.

[17] L. A. Theorin, letter, Peat, Marwick, & Bohlins, AB, Authorized Public Accountants, Stockholm, Sweden, to W. E. Hanson, Peat, Marwick & Mitchell, New York, dated June 24, 1969.

to be deducted in the income statement before profit and before movements in reserves and before taxes. The difference between this "normal" depreciation and actual depreciation is to be shown as a movement in the reserve for accelerated depreciation.[18]

The Stockholm Exchange Committee recognized the fact that price fluctuations may make cost a poor basis for calculating normal depreciation and suggested that information be given in the director's report of the effect on depreciation if calculated on replacement cost. The possibility was also suggested of showing the difference between accumulated "normal" depreciation and accumulated actual depreciation among untaxed reserves on the credit side of the balance sheet, but no definite recommendation was submitted.[19]

The committee did not discuss the treatment of the 10 percent tax allowance permitted under the investment reserve provision. This is invariably taken as a deduction of income tax and not as a reduction of the cost of the assets bought against the investment reserve. But the committee did mention that if reported "income before taxes" differs materially from taxable income, an explanation should be given in the director's report.

Such disclosure may be an important step in the right direction in at least permitting a reconciliation to be made between book income and that reported for tax purposes, even if the firm must continue under Swedish law to keep its official books according to tax accounting principles.

CONCLUSIONS

The foregoing recommendations indicate that the professional accounting organizations in Sweden *are* cognizant of distortion in financial reporting caused by Swedish tax legislation described in this article. Here then is an example for independent thinking and action on the part of the professional accountants of the new nations of the world, notwithstanding the significant contribution which accounting can and must make to the achievement of national goals in such countries as it has definitely done in Sweden.

The author's survey revealed that much freedom is afforded Swedish companies in connection with tax deductions for inventory write-downs, amounting to as much as 60 percent of cost. The same freedom in judgment surrounds fixed asset valuation, as a result of available ac-

[18] Ibid.
[19] Ibid.

celerated depreciation methods, authority to expense all fixed assets with an economic life of less than three years, and the use of investment fund reserves as tax deductions. But the effects on *annual* income determination can be significant and can result in a leveling of income from year to year.

Nothing is wrong with the use of sound accounting disclosure as a tool of national policy. What *is* wrong is the subordination of sound accounting principles to accomplish national objectives, resulting in distortion in the financial statements. Sweden's experience in the development of a national policy of stabilization is cited to illustrate the pitfalls of which a nation's professional accounting leaders must be constantly aware.

Swedish national objectives of preventing depressions and eliminating unemployment are commendable. But the means to these ends in Sweden often appear at odds with generally accepted accounting principles as practiced in the United States. The Swedish desire to control the timing and location of capital investments is understandable to all nations zealous of rapid development of national resources and full employment. However, the resulting tax deductions in one year for the creation of investment fund reserves to be spent where and when the government decides, again distorts reported earnings, frequently eliminating that year's taxable income completely.

As a result, accounting statements in such countries can be meaningless as far as true net worth is concerned. As in Sweden, the newer nations may find that the price of sound accounting practice and full disclosure appears to be constant vigilance — on the part of professional accounting leaders. As suggested by Mr. Linowes's observation in the introduction to this paper, the development of an active professional accounting organization appears vital so that accounting systems, based on sound principles, are developed and provide full disclosure of precisely that information which is so vital to national expansion and development in the newly emerging nations.

Distortion of financial statements, for whatever reason, cannot serve the best interests of either the central planning body, industrial management, or the nation's investors. Perhaps this is the major lesson which many countries, including the more mature and well developed, such as Sweden, have learned and are still learning.

The Emergence of Professional Public Accounting in Saudi Arabia

AHMED ABDUL KADIR SHINAWI* AND WILLIAM F. CRUM**

MATERIAL CHARACTERISTICS

The Kingdom of Saudi Arabia is located in southwest Asia, occupying approximately 830,000 square miles of the Arabian Peninsula, nearly one-fourth the size of the United States. A shortage of water for irrigation is responsible for the fact that only about 0.13 percent of this area is under cultivation and the rest is arid land.[1] The country lacks rivers and lakes. Rainfall averages about four inches a year in most parts of the kingdom, and some interior deserts may have no rain for as long as twenty years. Population estimates range from three to six million, though an accurate census has yet to be taken. The World Bank estimate of five million seems acceptable, and this has been used by the governor of the Saudi Arabian Monetary Agency, the country's central bank, to estimate the per capita income.[2]

Ten percent of the population is black and the remainder Caucasian.

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This article is a condensation of materials found in a few of the chapters of Dr. Shinawi's doctoral dissertation at the University of Southern California, "The Role of Accounting and Accountants in the Developing Economy of Saudi Arabia" (1970).

[1] Anwar Ali and Said Hitti, "Monetary Experience of An Oil Economy," *Finance and Development 11* (December 1965): 223.

[2] Anwar Ali, "Al Siasah Al Maliah W-Al Nagdiah Fe Al Mamlakah Al Arabia Al Saudiah" ["Fiscal and Monetary Policy in Saudi Arabia"], *Al Belad* [Daily newspaper, Jeddah, Saudi Arabia] (July 23, 1969): 5.

A majority of the population is of Arab ancestry.[3] Over one-half the population leads a nomadic or seminomadic life; one-fourth live in urban areas, and the rest are rural people.[4] Income per capita in 1968 was approximately $400.[5] Oil is the most important contributing source of income, with annual revenues of about $926 million in 1968.[6] Approximately 75 percent of government revenues and 46 percent of the gross national product are derived from petroleum.[7] Typical of other developing countries, Saudi Arabia largely depends on imports, both for survival and for economic development. In 1968, imports totaled approximately $492 million, with 23 percent of this total coming from the United States.[8]

As a recent entrant in the field of economic development, Saudi Arabia has followed the private enterprise system; the government has invested in social overhead capital, while encouraging the private sector to invest in a variety of economic activities. Since 1962 the public and private sectors have joined to form corporations to invest in projects requiring extensive capital and considered unappealing to the private sector to carry out alone. With the increase of private and public corporations in Saudi Arabia, a need for accounting services has developed.

THE COMPANIES ACT OF 1965

The Companies Act of 1965 prescribed regulations for professional accounting and auditing in Saudi Arabia. Prior to this law, the legal basis for accountants was established only in articles of incorporation which contained rules on the appointment of auditors. The Companies Act, considered as the "accountants' friend," reserved an entire section for matters of great importance to the auditor. Following is a summary of the topics included in this section:

1. The appointment of the auditor or auditors must be made by shareholders at the annual meeting, from the accountants licensed to practice in Saudi Arabia (Article 130).

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[3] Thomas K. Abercombie, "Saudi Arabia Beyond the Sands of Mecca," *The National Geographic 88* (January 1966): 9.

[4] George A. Lipsky, *Saudi Arabia* (New Haven, Connecticut: HRAF Press, 1959), p. 20.

[5] Saudi Arabian Monetary Agency (SAMA), *Annual Report, 1967* (Jeddah, Saudi Arabia: SAMA), p. 27.

[6] Anwar Ali, "Monetary Experience," p. 5.

[7] Saudi Arabian Monetary Agency (SAMA), *Statistical Summary, 1968* (Jeddah, Saudi Arabia: SAMA), p. 39.

[8] Ibid., p. 44.

2. The Act entitles the auditor to compensation for an unjustifiable dismissal (Article 130).
3. The Act provides for the auditor's independence, rights, duties, responsibilities, and penalties. The Act prevents the auditor from combining his duties as such with that of a promoter, incorporator, director, or employee, even in an advisory capacity, for the company he audits. Furthermore, the auditor shall not be a partner, employee, or relative to the fourth degree of any of the founders or directors of the company. Though Article 130 on independence is not strictly enforced, it could be interpreted to prevent the auditor from rendering management services to the company he audits. It is not believed that this has happened up to this time.

The Act further provides that the auditor shall not disclose to the stockholders outside the general meeting or to any other persons a secret to which he had access during his audit. If he does, he shall be replaced and held liable for damages.

The Act holds the auditor responsible for damages to the company, stockholders, or any party by reason of error or negligence committed by the auditor in rendering his services. The Act also provides for imposing the penalty of imprisonment for not less than three months and not more than one year and/or a fine of not less than SR[9] 5,000 ($1,111) and not more than SR 20,000 ($4,444) on any manager, director, auditor, or liquidator who willfully enters false information in the financial statements or fails to include material facts in these statements with the intent of concealing the financial position.

4. The Act enlarged the role of the auditor to include signing the subscription prospectus of capital increase (Article 136), the statement on shares issued to cover debts (Article 138), and the report on capital reduction (Article 142). The Act gives the auditor the right to inspect the company's books and records, to verify its assets and liabilities, and to demand any statements or clarifications considered necessary. It also provides that the board of directors shall call a general meeting of the stockholders at the request of the auditor, if such is deemed necessary. Article 230 of the Companies Act provides for the imposition of a fine of not less than SR 1,000 ($222) and not more than SR 5,000 ($1,111) on any manager or director who impedes the auditor's work.
5. The Act provides for the board of directors to prepare the inventory, balance sheet, and profit and loss account, and to make them available

[9] Saudi Rial.

to the auditor at least twenty-five days before the shareholders' annual meeting (Article 123). All the documents mentioned plus the audit report should be published in a periodical distributed at the location of the company's main office at least fifteen days before the date of the annual general meeting of the stockholders.

6. The Act provides for the principle of consistency in preparing the financial statements and in valuing the assets and liabilities. Changes can take place only at the authorization of the shareholders acting on the auditor's advice (Article 124). However, in the opinion of the authors, it is considered sufficient to have a footnote on the financial statements disclosing any change and its effect upon net income. As to the content of the auditing report, the Act requires it to state: (a) whether or not the auditor has obtained the information he required; (b) any violations of the Companies Act; (c) any violations of the articles of incorporation; and (d) the auditor's opinion as to the accuracy of the company's accounts.

It may be noted that though the origin of the Act goes back to the British Companies Act of 1948, it omitted two significant elements of the auditor's report that are required by the British Act: (a) whether the financial statements are in agreement with the accounting records, and (b) whether the financial statements present fairly the financial position and the results of operation.[10]

The Companies Act did not discuss such matters as accounting principles, professional ethics, auditing standards, or the creation of a professional body of accountants in Saudi Arabia. Instead, the Egyptian Companies Law 26 and other earlier Egyptian laws were adopted without desirable modifications to the needs of Saudi Arabia.

CHARACTERISTICS OF ACCOUNTING FIRMS AND STAFF

By 1968, twenty accounting firms and accountants had been licensed to practice accounting in Saudi Arabia. These firms originated from six countries: Britain, Egypt, Lebanon, Saudi Arabia, Sudan, and the United States of America. The academic degrees held by the staff of these firms ranged from a diploma to a Ph.D. As to professional titles, one was a C.P.A., five were F.C.A.'s, one was a F.A.C.C.A., and seven were Chartered Accountants of Egypt. Exhibit 1 presents a detailed classification of these firms and their staff. Such varied backgrounds might be expected to contribute to a diversity of both accounting prin-

[10] Saudi Arabia, Ministry of Commerce and Industry, *Companies Act* (1965).

ciples and practice, as well as auditing standards and procedures. Central to the accounting background of these practitioners, however, were the accounting thoughts and practices, the auditing standards and procedures, and the professional ethics which had been developed in Great Britain over many years.

In Saudi Arabia, the authority to issue professional accountants' licenses is exercised by the Royal Government. The first public accountant's license was issued in 1955 by the Ministry of Finance to the accounting firm of Nawar and Saba; this firm later split into two firms. In all, the Ministry of Finance issued three public accountants' licenses between 1955 and 1957. The authority to license professions was then transferred to the Ministry of Commerce which, in 1959, resumed granting public accounting licenses; however, there were no specific rules set up governing the issuance of the public accountant's license. As can be seen from exhibit 1, 90 percent of the licensed accountants in Saudi Arabia have college degrees, and 70 percent of them are chartered accountants in countries other than Saudi Arabia. Thus, it can be concluded that a college degree and some accounting experience have been apparently used as guidelines for issuing the license.

ACCOUNTING REGULATION

In March 1961, the Ministry of Commerce drafted the first statute regulating the accounting profession of Saudi Arabia. This legislation was revised twice — in 1962 and in 1969 — and still has not been enacted. To the best of the authors' knowledge, the proposed statute has been submitted to a committee composed of the Deputy Minister of Commerce and Industry, the Deputy Minister of Finance, and the Vice-Controller General, for study and recommendation.

In the absence of laws regulating the Saudi Arabian accounting profession, the Minister of Commerce must decide questions of compatibility in cases of government employees who apply for a license to practice public accounting. Thus, as an interim measure, the Minister of Commerce issued Decision Number 422, dated 1968, regulating the issuance of public accountants' licenses. The requirements, in brief, are:

1. The applicant must be a Saudi or non-Saudi Arab licensed to practice in his native country. The Minister of Commerce and Industry has the authority to license non-Arabs to practice accounting and auditing when he deems it necessary and desirable.
2. The applicant must be a resident of Saudi Arabia.

Exhibit 1.

Respondents, Licensed Accountants, or Managing Partners, Classified by Citizenship, Education, Memberships, Experience, and Practice in Saudi Arabia*

	CITIZENSHIP								
Classification	*Egyptian*	*Iraqi*	*Jordanian*	*Lebanese*	*Palestinian*	*Saudi*	*Syrian*	*Total*	*Percentage*
Number	5	1	1	2	1	6	1	17	100%
Education[1]									
Certificates				1			1	2	11.8
Bachelor's degree	4	1	1	1	1	6	1	15	88.5
Master's degree		1		1		1		3	17.7
Ph.D.						1		1	5.9
Professional Title									
A.C.A.[2]		1	1					2	11.8
F.C.A.[3]	2							2	11.8
F.A.C.C.A.[4]				1				1	5.9
Chartered in Egypt	3							3	17.7
Experience									
Three years in public accounting	2	1	1					4	23.6
Five years in public accounting	3					1		4	23.6
Ten years in public accounting				2			1	3	17.7
Two years in business					1			1	5.9
Ten years in government						2		2	11.8
Ten years in business and government						1		1	5.9
Seven years in public accounting and government						2		2	11.8
Practice									
In public practice only	3	1	1	2		1	1	9	52.9
Government employee	2							2	11.8
Both public practice and government employee					1	5		6	35.3
									100.0%

* As of September 1, 1968, based on survey made by Dr. Shinawi, in cooperation with the Saudi Arabian government.

[1] In case of education, the percentage of the respondents with various degrees exceed 100 percent because some of them have more than one degree.

[2] A.C.A.: Associate of the Institute of Chartered Accountants in England and Wales.

[3] F.C.A.: Fellow of the Institute of Chartered Accountants in England and Wales.

[4] F.A.C.C.A.: Fellow of the Association of Certified and Corporate Accountants.

3. Education and experience: (a) The applicant should have a doctoral degree in accounting or a master's degree in accounting, and one year of training in a licensed accountant's office, or one year of accounting experience in government, a company, or a business; (b) or, the applicant should have a bachelor's degree in business or its equivalent and three years of training in a licensed accountant's office. However, five years of accounting experience in government, a company, or a business is considered the equivalent to three years of training in a licensed accountant's office. The accounting experience should be gained after graduation in order to be considered.
4. The applicant should be of good moral character.
5. A licensed accountant is allowed to audit corporate financial statements only after he has practiced accounting or auditing on his own as a public accountant for not less than three years. This rule was adopted with some modifications from the 1951 Egyptian Law of Accounting Profession, Article 25.

While there is a three years' minimum experience requirement arising out of these requirements, there is no examination requirement. Presumably the requirement of some type of bachelor's, master's, or doctoral degree is considered sufficient, together with the many examinations that must be passed in an effort to attain these degrees.

The accounting profession in Egypt has had and continues to have immediate influence on the accounting profession and its status in Saudi Arabia. As of September 1, 1968, 35 percent of the licensed accountants in Saudi Arabia were Egyptian; and the majority of their staff were also Egyptian. Forty-five percent of these licensed accountants received their college education in part or entirely from Egyptian universities because Saudi Arabia sent most of its students to Egypt for such training before the establishment of its first school of business in 1957. Most of the professors teaching in the School of Business in Riyadh were Egyptian at the time of the survey, and in prior years, as well. Egyptian legal advisers and accountants helped the Saudi Companies Act and the interim regulations of the national accounting profession. Thus, it is only natural that many of the provisions and practices of Egypt were transferred to and incorporated in the laws and regulations of Saudi Arabia.

NATIONAL PROFESSIONAL PROSPECTS

What are the portents for the future of professional public accoun-

tants in Saudi Arabia? The future of the professional public accountant in Saudi Arabia may rest with the growth of accounting training in public accountants' offices in Saudi Arabia where the majority of future accountants could be trained. As of 1969, a surprising 70.5 percent of the respondents to a survey made by one of the authors indicated a total staff of approximately 120, but only six (5 percent) were Saudi citizens. With such a small percentage of Saudi citizens on the staff of public accounting firms, Saudi Arabia will need to depend largely upon imported accounting skills from Egypt, Lebanon, and elsewhere for the immediate future. Although 64.6 percent of the respondents indicated they attempted to recruit Saudi college graduates for their offices, only 29.4 percent of the Saudi college graduates indicated a willingness to work for these accounting firms.

Some reasons for this lack of desire to enter professional public accounting training and work may be traced probably to the higher prestige associated with governmental positions, the obligation incumbent on many graduates to work for the government (where they had been educated at governmental expense), and the relatively low salaries offered to date to professional public accounting staff in Saudi Arabia. The profession itself may correct this last factor, but only the government of Saudi Arabia can encourage some of the more intelligent accounting students with degrees obtained elsewhere to return to their country and enter the local profession. Until and unless this is done, it is probable that the accounting profession in Saudi Arabia will continue to be dominated by accountants from Egypt, Lebanon, and elsewhere. There is no professional society of accountants or any group of organized accountants in Saudi Arabia at this time. Hopefully one will be founded soon. The incorporation of a professional society of accountants in Saudi Arabia would require a royal decree to establish its legal existence, together with the recognition of its code of ethics and its status as a professional organization.

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