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DEVELOPMENT OF ASSET VALUATION IN TERMS OF MARKET PRICES

By Constance T. Barcelona

DEPARTMENTS

- Editor's Notes
- Theory and Practice
- Tax Forum
- Reviews

NOVEMBER 1971

Official publication of the American Woman's Society of Certified Public Accountants and the American Society of Women Accountants.

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MAJOR ARTICLES

Page

DEVELOPMENT OF ASSET VALUATION IN TERMS OF MARKET PRICES

Constance T. Barcelona

5

"History of the Dark Ages is obscure, but it is known that church domination and canon law dictated a "just price" appraisal for inventory accounting on medieval estates. The only cost concepts necessary were those of raw material plus farm labor; any subsequent markup for resale would be intolerable, at least for a good churchman."

"On the other hand, Florentine bankers understated their assets to the most credible limit to maximize effects of the "catasto" tax of 1427, which required filing of a property list to serve as a tax base."

"When valuing furs, Paciolo, the priest, admonished "Let truth always be your guide", while Paciolo, the merchant bookkeeper, let truth be guided by practicality."

"Depreciation of fixed assets was a topic of conversation but actual practice was irregular and attuned to the whims of management."

"Stress marks appear from time to time, fractures occur in periods of great economic upheaval, and the profession revises and rebuilds its concepts as necessary."

EDITOR'S NOTES

THE ECONOMY

As accountants, we can only wonder what effects on our jobs will result from the President's new economic policies. As this is written, the President has announced that the 90-day wage-price-rent freeze will not be extended beyond November 13, but has indicated there will be an official "Phase Two." It well may be the start of a whole new era of record keeping and accounting considerations. It appears that the accountant is never out of a job!

IN THIS ISSUE

It is with great pleasure that we publish in this volume another manuscript by Constance Barcelona, whose writing is, we believe, especially delightful and interesting. You may remember "The Census-Quantitative Interpreter for the Republic" in the January 1969 issue.

THE BUSY AICPA

As this editor attempts to understand some of the recent Opinions of the Accounting Principles Board, she was struck by the sheer number of pronouncements by the APB and by the Committee on Auditing Procedure of the Institute—5 Opinions covering 134 pages issued between August 1970 and July 1971 and 4 Statements (only 30 pages) issued between September 1970 and July 1971. This is surely a challenge to accountants to stay abreast of what's going on in our profession.

NAMES IN THE NEWS

We are particularly pleased to note that Marjorie June, 1970-71 AWSCPA President, has been appointed to the Editorial Board of THE JOURNAL OF ACCOUNTANCY.

A NEW TITLE

We proudly announce the awarding of a doctorate degree from the University of Colorado to our Associate Editor. We hope all notice the name "Dr. Ula K. Motekat" on our masthead.

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DEVELOPMENT OF ASSET VALUATION IN TERMS OF MARKET PRICES

The author takes us from Plato to Spacek in this interesting tale of the changing concept of the value of assets.

Constance T. Barcelona Cincinnati, Ohio

Man is a measuring sort of creature urged by an insistent drive to count his wealth or woes, appraise his chances, evaluate his position. In such compulsion he is frustrated at the start by time that never stands still and by the timeless riddle of what constitutes value. Small wonder that accountancy has trouble in so philosophic a whirlpool. How can it place value on treasure at a given moment when the apparent worth may change in the next? And whose value must the accountant define?

Measuring Rods from Antiquity

The Greeks in their agrarian world disdained the mechanics of pricing; indeed, they considered the activities of the market place to be plebian and below the dignity of scholarly thought. Plato was concerned with the several natures of truth, beauty, and wisdom when he wrote: "a measure of such things which in any degree falls short of the whole truth is not a fair measure; for nothing imperfect is the measure of anything." 1

A Roman farmer appraised the value of his property in terms of how many oxen it would be worth. For him, pecuniary value was a graphic image of cattle, i.e. "pecus", that modifies easily to "pecunia" or Roman coinage. By the second century B.C. the Roman statesman, Cato, advised an audit of farm accounts and inventories of grains, fodder, wine, and oil and stressed the wisdom of listing of assets by all propertied people.²

Throughout the ancient Graeco-Roman world the only purpose served by inventory valuation was the prevention of fraud and waste.

Medieval Inventory Practices

History of the Dark Ages is obscure, but it is known that church domination and canon law dictated a "just price" appraisal for inventory accounting on medieval estates. The only cost concepts necessary were those of raw material plus farm labor; any subsequent markup for resale would be intolerable, at least for a good churchman.

Estate Managers

Estate accounts from the thirteenth century show that inventories were carefully recorded and kept current with a perpetual counting system. Detection of fraud and waste was still the primary purpose. Estate managers reconciled depletion with proof of use and enforced good husbandry by such stratagems as comparing the salt used in curing animal hides with the actual inventory of hides and fleeces. Another rural wisdom was the comparison of corn yield with seed corn stock at the beginning of the growing season, correlated with acreage.3 The powerful feudal landlords were well on their way toward astute management while still another inventory concept was developing along the shores of the Mediterranean.

The Merchant Princes

Mercantilism began with the breakdown of feudalism and a transition from agrarian to exchange economy. Naturally, this started in areas where water routes provided easy access to the world's markets; soon the maritime cities of Italy were accumulating inventories of jewels, fabrics, furs, spices, silverware, and gold. The Church had dominated earlier eco-



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Mrs. Barcelona was President of Cincinnati Chapter of ASWA in 1970-71 and is a member of the Editorial Board of THE WOMAN CPA.

nomic thought with the "just price" theory, the assumption that value was inherent in the commodity. But a principal objective of mercantilism was to add to the power of the state by increasing its wealth, and so the doctrine of the "just price" gave way to a tacit doctrine of "treasure." Venture accounting records from twelfth century Genoa confirm this tendency to inflate inventory values to the highest market price.4

In 1312 Pope Clement V created a problem for Italy's powerful bankers with his declaration that usurers could be convicted on the strength of their own account books. Secrecy in bookkeeping was a predictable result. Those were days of cupidity, mischief, and a shrewd turn of the business mind. Valuations assumed a chameleon quality, to turn a different color depending on expediency.

Thus, by the fifteenth century a prudent merchant placed maximum valuation on his inventory to conceal at least some of his profits at future sales. On the other hand, Florentine bankers understated their assets to the most credible limit to minimize effects of the "catasto" tax of 1427, which required filing of a property list to serve as a tax base. Taxes are perennial; only the agents retreat and change.

None of the foregoing schemes were efforts at honest inventory valuation. Each, in truth, was an attempt at falsehood for a purpose. A modern accountant worries that he may portray a false picture of value in a complex economy. Books of Italian sea ventures in the Middle Ages were untrammeled by such ethics. A degree of sophistication was apparent in fourteenth century accounting records, but they lacked system and direction. The time was ripe for an organization of accounting ideas.

Luca Paciolo

On the shores of the Adriatic a Franciscan monk, Fr. Luca Paciolo, wrote "Summa de Aritmetica . . ." in 1494 with a codicil section on accounting for all the merchants of "Venice and Elsewhere." His compilation of accounting methodology, while not entirely original, was the first to establish an orderly procedure and to classify inventory valuation as an essential for good business.

Venice was an international market; coins from many countries were in Venetian coffers along with imports of the world's treasure. Shakespeare in "The Merchant of Venice" tells of Salarino brooding about ". . . rocks, which, touching but my gentle vessel's side, would scatter all her spices on the stream, enrobe the roaring waters with my silks, . . . "5 Paciolo had this type of inventory in mind and added all personal property, as was the established custom of his day. He prescribed an accurate and complete counting, all in one day, of the following: cash (in various coinages), set and unset jewels, clothing, silverware, cloth (domestic), featherbeds, merchandise in warehouses, spices, skins and hides, furs, houses for residence, acres under cultivation, bank deposits, accounts receivable, and accounts owed. Counting day must have been quite a busy occasion.

He advised current market prices for all inventory items, which was further demonstration of the attempt to avoid penalty by the Church for unduly high profits from sales. He was a man of ambivalence, however. When valuing furs Paciolo, the priest, admonished "Let truth always be your guide"6, while Paciolo, the merchant bookkeeper, let truth be guided by practicality. He instructed:

In making entries in the Journal, record all the pertinent details you described in the Inventory, giving each thing a customary price for your own personal knowledge. Make the prices high rather than low. If it seems to you that something is worth 20, put it down at 24, so that you will make a larger profit.⁷

Lords of the Manors

Meanwhile the landed gentry in England were developing valuation techniques suited to their way of life. Their accounts started with the farm stock remaining from the previous accounting period, that is, the beginning inventory, and then were adjusted by adding intake and subtracting issue. Records were kept in two places, one on the account of the steward and the other on the tally of the person from whom goods were purchased or received. The resulting inventory at the end of the season was then subject to an audit known as "View of the Account." Pricing such an inventory was less important than unit count, for this was a selfcontained economy for the most part.

A. C. Littleton has written of Tudor estate accounting "We come to realize that the practices of today are not good or bad because they are old. Then, as now, the actions taken in business and accounting were taken because they were judged in their particular setting to be useful and adequate."8 He was referring to the two centuries that would center, roughly, at 1550 and to the charge and discharge system of accounting typical of English estates. Inventory was maintained on a perpetual system with strict quantity control in issues to the kitchen, the baker, larder, brewer, etc. Security checks for preserving inventory rivaled the efficiency of a modern hotel system.

Two methods of accounting, the Italian for merchants and the English for nobleman-farmers, coexisted for half a century with little commingling of thought. The world was not as small then as it is now; no communications satellite flashed instant televised news from Italy to the north. Normal trade routes did permit exchange of ideas, but new methods were adopted very slowly.

Both English and Italian systems stimulated an Englishman, Hugh Oldcastle, to write a text on accounting in 1543 which was revised thirty years later by his compatriot, John Mellis. The Oldcastle-Mellis method of valuation started with an inventory of all property owned by a merchant, personal as well as trading assets, expressed in one monetary system. Market valuation must be assumed in the absence of any method for cost documentation.

In the opinion of A. C. Littleton, English estate accounting methods were supplanted by the Italian accounting system because of its vitality and adaptability.⁹

Inventory valuations up to the seventeenth century were pragmatic in concept. When a tax or trading advantage could be effected, they were often dishonest by intent. Even when honestly intended, valuations were quite casual in their application.

Asset Valuation and the Developing Industries

Industrial development in fragment areas and some origins of cost accounting appeared in the seventeenth century, although prior to 1800 domestic handwork usually was the productive agent for manufacture. Heavy machinery for processing raw material had not been developed so capital was not absorbed in expensive fixed assets. Principal capital investment was in inventories of raw materials, work in process, and finished goods.

Textile processing included raw material in the form of wool plus the costs of sorting, cleaning, combing, spinning, and weaving. Weaver entrepreneurs recognized that finished yardage should reflect the labor cost as well as the cost of the wool. Operating costs, or overhead, did not concern them because work was farmed out to domestic laborers in the country-side. Buntings, crepes, and worsteds listed in the weaver's books of Thomas Griggs, an English weaver of the era, show prime historical costs. 10

Mercantile-financial expansion marked the seventeenth century, paralleling industrial development in innovation. The Dutch and English East India Companies and the Hudson Bay Company put out to sea with smooth sailing. Joint stock companies flourished as the

popular investment of the day and made it necessary to have accounting statements for absentee owners. For the East India Company, valuing assets was a hybrid procedure that included historical cost, plus maintenance cost, plus adjustment for rents and receipts from sales, all carried forward in a net balance to a new ledger at the balancing date.

The South Sea Company, a similar enterprise, did not enjoy such smooth passage but sailed instead into a financial storm. It lacked the assets represented by its stock and the public learned, in 1720, the folly of contrived valuations. Ensuing legislation was the first in a continuing series of English and American acts to regulate publicly financed business. The South Sea bubble broke and took with it joint stock company financing for over one hundred years.

The Search For Better Reporting Techniques

Eighteenth century bookkeepers became aware of the fact that assets represent future economic benefits and observed that a change in inventory values reflected either adverse or fortunate economic activity. Experimentation with methods for asset valuation was a natural consequence.

Alexander Malcolm published "A Treatise of Bookkeeping" in 1731 in which three bases for inventory valuation appear, i.e., 1) historical cost, 2) historical cost plus nominal expenses and receipts for sales of all or part of the assets, and 3) revaluation. All three concepts were intertwined with operational costs. The second method, as used by the East India Company, even carried forward the aggregation of capital and nominal entries to the new ledger at balancing dates.

During this time of experimentation it was common to find different bases for different assets in the same ledger or for the same asset at a different balancing date. Investments such as shares in joint stock companies or government securities were revalued at balancing dates to show current market valuations.¹¹

Malcolm advised against valuing inventories at market. Accountant-historian B. S. Yamey has noted this with the comment: "This is an early prescription of the realization of profits criterion for the recording of gains and losses." He points out that there was no inhibition against inconsistency of valuations or any concern with distinguishing between capital and revenue increments to assets. The realization of profits concept of valuation was not actually in use or even seriously considered at the time, Malcolm notwithstanding. "The application of the criterion came into its own during the last hundred years or so." 12

John Mair recommended that unsold mer-

chandise be valued at "prime cost," ¹³ but a different opinion was offered some fifty years later by Robert Hamilton:

It is much more proper to value the goods on hand in conformity to the current prices, than at prime cost, for the design of affixing any value is to point out the gain or loss and the gain is in reality obtained as soon as the prices rise, or the loss suffered as soon as they fall.¹⁴

The "Full and Fair Price"

The year 1844 introduced another term into the valuation lexicon echoing somewhat the "just price" of the Church in pre-mercantile Europe. A "full and fair" 15 balance sheet was prescribed for each meeting of the shareholders as one of the requirements for operating a joint stock company under the Act of 1844. Balance sheet accounting was in vogue, partly due to the writings of F. W. Cronhelm in 1818 and Thomas Jones in 1841. The essence of the theory reflected in Cronhelm's writing is the concept of income as a net increase in proprietorship. If balance sheets are presented as full and fair statements at regular intervals, it follows that income increase or decrease will be reflected in the asset changes.

Absentee ownership, by means of a share of stock, was the pressure causing more complete reporting during the nineteenth century. It is a pressure felt even more insistently today and is the impetus for many accounting research studies as to the nature of assets and valuation techniques.

Valuation Concepts and Industrial Expansion

Railroads (Rolling Stock and Runaway Values)

Accounting reforms are usually after the debacle, a pattern that is embarrassing to the profession but a very natural phenomenon. Railroad development in England, and later in the United States, created a vast investment in fixed assets. Valuation concepts for the rolling stock and rails were as naive as they were ruinous. To some railway operators, a rise in the market value of the assets seemed to obliterate any depreciation from use of the same assets. Depreciation of fixed assets was a topic of conversation but actual practice was irregular and attuned to the whims of management.

As depreciation charges finally became standard accounting practice, the costing of the base was full of controversy. The accounting profession met a problem with many viewpoints, several of them quite valid, and the answer is still far from uniform.

Utilities (The Lines Weren't Always Straight)

Early accounting for public utilities had its own motives for bias. Rates were charged on the basis of a percentage return on fixed asset costs, so, as could be expected, assets were given an inflated value.

Establishing a basis for depreciation for such heavy capital investment has encountered many problems. First, lump sum acquisitions were not well classified; then it became impossible to allocate extensions, replacements, and retirements. Piecemeal renewals were charged directly to expense, and obsolete portions were not systematically removed from the asset schedule. The combination of such mixed recording made sound depreciation practice impossible.

The Divine Right of Government Accounting

The Federal Government assumed that the solution to utility problems was inherent in Federal wisdom and in 1944 prescribed systems of accounts for utilities under government jurisdiction which have been adopted by most state public utility commissions. A most radical feature of public utility asset valuation is the concept of "original cost" or, as it has sometimes been called, "aboriginal cost," this being the cost to the first owner. Additions are then segregated from the original cost and two provisions for depreciation are developed, one for the original depreciated cost of the asset and the other for amortizing additional costs of acquisition. The Federal Power Commission provided for systematic depreciation of the original cost but makes arbitrary decisions in individual cases for disposition of the amortizing expense. Such costs may be charged to net income, retained earnings, or capital.

Such a cost system for asset valuation is anethema to the accounting profession. Montgomery's "Auditing" tells of consultation between the American Institute of Accountants and the Federal Power Commission at the time when adoption of the above provision was under consideration. The Institute stated its objections to a system that forced companies to depart from the accepted accounting principle that properties owned be recorded in the accounts of present owners at the actual cost to them.

Original cost, in the Federal Power Commission definition, ignores fluctuations in monetary values and disregards changing economic conditions and patterns of population growth. Paton says: "the idea of going back to the set of the previous owner, perhaps several generations removed, to find the significant increase of investment in the existing enterprise appears to rest in part on some molecular conception of

property "16 Fortunately, the original cost concept is peculiar to the utilities for it is an anomaly in accounting practice.

Valuation Problems With Industrial Expansion

A discussion of accounting principles "can't very well be hung on a row of chronological pegs," to quote William Paton again.¹⁷

Stress marks appear from time to time, fractures occur in periods of great economic upheaval, and the profession revises and rebuilds its concepts as necessary.

Cresting of the Industrial Revolution and general expansion of the country had been accompanied by naivete on the part of government that allowed development of both good and bad business practices. Inflation billowed through the economy after World War I, yet the government exercised no restraint on the stock market. In retrospect, the 1929 crash appears inevitable. Its good effect, among the more tragic, was a disciplinary reaction within the stock market and in business and business-related professions, the creation of the Securities and Exchange Commission in 1933 being one of the more conspicuous examples.

Public accounting became synonymous with conservatism. The credo was . . . in case of doubt, devalue assets. This was understandable because roseate, but unreal, views of corporate wealth had fostered the credit overexpansion that finally snapped into an abyss in 1929. From such a bitter lesson the "lower of cost or market" valuation principle evolved, but it has introduced a balance sheet dilemma into the era where the Dow-Jones averages move incluctably toward the magic 1,000 mark.

Modern Valuation Theory and Controversy

Before inspecting current accounting theory about asset valuation, it is important to have a contemporary definition of assets. Accounting Research Study No. 3 says "Assets represent expected future economic benefits, rights to which have been acquired by the enterprise as a result of some current or past transaction." This is related to the economic concept of scarce resources. Assets must also be assignable to specific entities, be capable of exchange either as a part of a group or separately, and be expressible in terms of money. All of this is consistent with the "Basic Postulates of Accounting," but a further refinement of thought is necessary. Assets may be considered as stores of services to be received. Service is the significant linking element, i.e., service potentialities.

An accountant is faced with the necessity of placing some sort of value on assets and some measure on their service potential. "Accounting requires the quantification of economic relationships and economic changes in terms of a monetary unit. The quantification of assets in terms of a monetary unit is a valuation process." ²⁰

The Dilemma

During the trust period in United States development-about 1900-consolidations and great expectations were the order of the day. Stock was overvalued and stock issues were excessive. (A situation such as this has the sound of the decade of the sixties.) In the latter part of the twenties, this situation was reversed. Auditors were under pressure for realistic accounting and reliable statements for credit purposes. Today, the preeminent criterion of value is interpreted as the current value of future economic benefits, but accounting professionals have been loathe to abandon their conservative choice of historic costs. Equally unacceptable in their eyes is a system of current reappraisals correlated with comparison of balance sheets at each end of the accounting period as a measure of profits. Accepting this difference would mean that surplus by appre-

HOW TIMES CHANGE—The following is from the files of THE WOMAN CPA—Volume II, April 1, 1939:

A Married Woman's Bill was introduced in the Illinois legislature in March, as follows:

H.B. 536

"No married woman shall be employed in any gainful occupation in this state whose husband has an income of \$1500 or more per annum.

Any person who employs any married woman in violation of this act shall be guilty of a misdemeanor, and shall on conviction therefore be fined not less than \$25.00 nor more than \$200.00 for each such offense."

ciation was identical with earned surplus.

Resolution of this dilemma, according to Littleton, is aided by recognizing the inherent differences between the limitations of accountancy and the motives of clients who use the position and income statements. Businessmen may have many occasions to evaluate assets. Accountants, rigorously speaking, never have such occasion, for accounting is a recording function. The auditor does have the responsibility to present a statement to clients that will help them evaluate a situation. Figures on the accounting statements cannot accurately form a statement of values "for values are too momentary and too subjective to be clothed in these figures." ²¹

Historical costing of inventories is objective, verifiable, and universally accepted by readers of financial statements, but historical cost with FIFO adjustments will be valid as a method of valuation only in a stable market situation and only over the short run.

Valuation-Various Modern Approaches

The concept of valuation of assets as a means of income measurement has been traditional accounting thought since 1930. The difficulty, of course, is in applying the measurement of net assets at the beginning and at the end of the period under analysis. Statement No. 3 of the Accounting Principles Board recommends that general price-level statements be presented as supplement to, but not substitute for, basic historical-dollar financial statements.²²

Valuation may also, in theory but not yet in practice, be interpreted as a measure of accretion, as a step in the matching process. This concept considers the increase in assets as the business transaction progresses, namely, from inventory to accounts receivable to cash, to be the natural measure of accretion.

Valuation for use by creditors is a simple matter of determining liquidation value. The liquidation viewpoint is the ancestor of the doctrine of conservatism and was a practical necessity in the economy of the early twentieth century.

Inventories present a classic valuation puzzle, with present-day approaches offering sophistication and variety but considerably less peace of mind than Paciolo's two-faced solution in the fifteenth century.

According to many contemporary accountants, inventory valuation is best expressed by the expected future net receipt of funds. Output value, or the value of a product in process, is best suited to cases where inventory will be modified before it is sold. Output value, as seen by Hendriksen, may be determined by:

- (1) discounted money receipts—when the selling price is definite.
- (2) current selling prices. Accounting Research Bulletin No. 43 accepts this concept when there is a firm delivery contract with provision for immediate collection of proceeds.
- (3) net realizable values. This assumes that income has been earned on work in process and finished goods at the time the inventory is valued.²³

Chambers stresses the difference between measure and value:

Sprouse and Moonitz say "inventories which are readily salable, at known prices with negligible costs of disposal, or with known and reliably predictable cost of disposal, should be measured at net realizable value." They further propose that this procedure should not be the exception but should be "considered in keeping with major accounting objectives." ²⁵

This is more permissive than the expression of Accounting Research Bulletin No. 43 that directs that valuation may be above cost only when there is difficulty or inability to estimate appropriate costs. The influence of tradition is still apparent. However, the trend is to supplement traditional valuations with footnotes and schedules to allow for more adequate disclosure of values.

Price-level adjustment and restatement of inventories present a refinement of historical cost but may also involve the income statements if the restated inventory exceeds replacement cost. If the "cost or market" rule is to be applied to the adjusted data and inventory is shown at less than replacement value, the difference should be recorded as a "loss." 26

Conclusion: A Very Difficult Game

An English mathematician and authority on moving objects wrote the following in 1865:

... and when she ... was going to begin again, it was very provoking to find that the hedgehog had unrolled itself, and was in the act of crawling away: ... and as the doubled-up soldiers were always getting up and walking off to other parts

(Continued on page 19)

THEORY AND PRACTICE

Current Studies and Concepts

EILEEN T. CORCORAN, CPA, Special Editor Arthur Young & Company Chicago, Illinois



In July 1971 the Committee on Auditing Procedure of the American Institute of Certified Public Accountants issued Statements on Auditing Procedure Nos. 45 and 46. Statement 45, entitled "Using the Work and Reports of Other Auditors," is summarized below. Statement 46, entitled "Piecemeal Opinions," was discussed in the July issue when the Statement was in its exposure stage. The final Statement does not differ significantly from the exposure draft.

Using the Work and Reports of Other Auditors

The Statement states that its purpose is to establish guidelines for reporting on financial statements when the principal auditor utilizes the work and reports of other independent auditors who have examined the financial statements of one or more subsidiaries, divisions, branches, or other components included in the financial statements presented.

Assumption of Responsibility

According to the Statement, ordinarily the principal auditor would be able to assume responsibility for the other auditor's work when:

1. Part of the examination is made by another independent auditor which is an associated or correspondent firm and whose work is acceptable to the principal auditor based on the principal auditor's knowledge of the professional standards and competence of that firm; or

The other auditor was retained by the principal auditor and the work was performed under the principal auditor's guidance and control; or

3. The principal auditor, whether or not the principal auditor selected the other auditor, nevertheless takes steps the principal auditor considers necessary to obtain satisfaction as to the other auditor's examination and accordingly is satisfied as to the reasonableness of the accounts for the purpose of inclusion in the financial statements on which the principal auditor is expressing an opinion; or

4. The portion of the financial statements

examined by the other auditor is not material to the financial statements covered by the principal auditor's opinion.

Under these circumstances the principal auditor is prohibited from mentioning the other auditor in the audit report.

Non-assumption of Responsibility

The Statement states that when the principal auditor is unable to or does not wish to assume responsibility for the other auditor's work the principal auditor must disclose reliance on the other auditor in the scope and opinion paragraphs of the principal auditor's report. The Statement contains the following example of appropriate wording under these circumstances.

"We have examined the consolidated balance sheet of X Company and subsidiaries as of December 31, 197__ and the related consolidated statements of income and retained earnings and of changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We did not examine the financial statements of B Company, a consolidated subsidiary, which statements reflect total assets and revenues constituting 20% and 22%, respectively, of the related consolidated totals.* These statements were examined by other auditors whose report thereon has been furnished to us and our opinion expressed herein, insofar as it relates to the amounts included for B Com-

^{*}The Statement provides that the magnitude of the portion of the financial statements examined by the other auditor should be disclosed by whatever criteria most clearly reveals the division of responsibility. It also provides that, when two or more auditors in addition to the principal auditor participate in the examination, the percentages covered by the other auditors may be stated in the aggregate.

pany, is based solely upon the report of the other auditors.

In our opinion, based upon our examination and the report of other auditors, the accompanying consolidated balance sheet and consolidated statements of income and retained earnings and of changes in financial position present fairly . . ."

Regardless of the principal auditor's decision as to assumption of responsibility, the Statement states that the other auditor retains responsibility for the work and report the other auditor performed and issued.

Other Matters

Included in the Statement is a discussion of procedures that the principal auditor should perform to obtain satisfaction as to the professional reputation and independence of the other auditor and to assure coordination of the principal auditor's activities with the activities of the other auditor. Also included is a discussion of additional procedures that the principal auditor might undertake when the principal auditor decides to assume responsibility for the work of the other auditor.

The Statement also discusses reporting on restated financial statements of prior periods following a pooling of interests and of the necessity for a successor auditor to obtain satisfaction as to consistency in application of accounting principles.

Pooling of Interests

The Statement contains the following illustration of a "compilation opinion" which the principal auditor of the current year's financial statements may issue on prior year's financial statements restated to reflect the pooling, provided the principal auditor has examined at least one of the entities included in the restatement for at least the latest period presented:

"We previously examined and reported upon the consolidated statements of income and of changes in financial position of XYZ Company for the year ended December 31, 19__ prior to its restatement for 19__ poolings of interests. The contribution of XYZ Company to revenues and net income represented ___% and ___% of the respective restated totals. Separate financial statements of the pooled companies included in the 19__ restated consolidated statement of income were examined and reported upon separately by other auditors. We also have reviewed, as to compilation only, the accompanying consolidated statements of income and of changes in financial position for the year ended December 31, 19___ after restatement for 19__ poolings of interests; in our opinion, such consolidated statements have been properly compiled on the basis described in Note X of notes to consolidated financial statements."

In reporting on the compilation of restated financial statements as described in the preceding paragraph, the Statement says that the auditor does not assume responsibility for the work of other auditors nor the responsibility for expressing an opinion on the restated financial statements taken as a whole. It states that the auditor's review is directed toward procedures which will enable the auditor to express an opinion as to proper compilation only. These procedures include checking the compilation for mathematical accuracy and for conformity of the compilation methods with generally accepted accounting principles. For example, it states that the auditor should review and make inquiries regarding such matters as the following:

- Elimination of intercompany transactions and accounts.
- Combining adjustments and reclassifications.
- 3. Adjustments to treat like items in a comparable manner, if appropriate.
- 4. The manner and extent of presentation of disclosure matters in the restated financial statements and notes thereto.

Successor Auditor

The Statement indicates that, when one auditor succeeds another, the successor auditor must establish the basis for expressing an opinion on the financial statements for the first year the successor auditor examines and on the consistency of the application of accounting principles in that year as compared with the preceding year. It states that this may be done by applying appropriate auditing procedures to the account balances at the beginning of the period under examination and that the scope of this work may be reduced by consultation with the predecessor auditor and review of the predecessor auditor's working papers. It concludes that, in such cases, it is customary for the predecessor auditor, as a matter of professional courtesy, to be available to the successor auditor for consultation and to make the working papers available for review. However, it states that the successor auditor should not make reference to the report or work of the predecessor auditor as the basis in part for the successor's own opinion.

TAX FORUM

ANNE D. SNODGRASS, CPA, Editor Gifford-Hill & Company, Inc. Dallas, Texas



LUMP-SUM DISTRIBUTIONS, REVISITED

By this time, most practitioners have had some opportunity to file tax returns affected by the Tax Reform Act of 1969 and have thus obtained a working knowledge of the more sweeping changes. Now a new experience lurks in the shadows, that of interpreting the Regulations which have been proposed under the Act and of readjusting the pre-Regulation periods.

Therefore, the time has come to correct past presumptions and to attempt to set forth in reasonably accurate summary form the "gospel" according to the U. S. Treasury Depart-

ment.

In May 1970, the Tax Forum reviewed the Tax Reform Act provisions dealing with lump-sum distributions from qualified employee benefit plans. These provisions amended Sections 72, 402, and 403 of the Internal Revenue Code, limited the long-term capital gain treatment formerly accorded lump-sum distributions, and also provided for a special tax computation which applies to the ordinary income portion of such distributions. Proposed regulations were published on June 12, 1971. These Regulations are not undergoing the usual hearing procedures.

The new law limited the capital gain treatment of total distributions from employee benefit plans to (1) the amount accrued to the benefit of the employee during plan years beginning before January 1, 1970, and (2) the portion of the benefits accrued to the employee during plan years beginning after December 31, 1969, which the employee can establish are not his proportionate share of the employer contributions made to the plan. Section 1.402 (a)-2 of the proposed regulations provides the necessary rules for computing the capital gain and ordinary income elements of a lump-sum, or total, distribution. There are two sets of rules under this section—one for defined contribution plans and one for defined benefit plans. If the plans are switched from one type to the other, both sets of rules must be applied.

A defined contribution plan includes money purchase pension plans, profit-sharing plans, and stock bonus plans where the employer's contribution is determined by a formula set forth in the plan. A defined benefit plan includes pension plans which prescribe the benefits to be paid an employee upon meeting the necessary conditions. Normally under a defined benefit plan the employer's contribution is determined by actuarial formulas.

Since the capital gain element of a lumpsum distribution is generally defined as the excess over the sum of the net employee contributions, the ordinary income element of the distribution, and certain death benefits, it is necessary to first define the ordinary income element. This gets the problem down to the meat of the proposed Regulations.

Defined Contribution Plans

Section 1.402(a)-2(b) sets forth the general rules for defined contribution plans, and Section 1.402(a)-2(c) covers the transitional problems relating to those plans already in effect on December 31, 1969. In order to grasp the transitional rules, it is necessary to obtain some background on the general rules established for plans that were not in effect on December 31, 1969.

In general, for "new" plans, the ordinary income element of a total distribution is the lesser of (1) the employer contributions credited to the account of the employee, or (2) the excess of the employee's account balance over the employee contributions, the net unrealized appreciation in employer securities, and the death benefits available under Section 1.72-

16(c), which is an existing Section.

The employer contributions credited to the account of the employee will include amounts contributed by the employer (or a predecessor of the employer) whether they are credited directly to the employee's account or they are used to purchase annuities, retirement income, endowment, or other life insurance contracts for the employee. Furthermore, they include forfeitures arising from terminations of employees not fully vested and will also include the dividends paid under annuity, retirement, income, endowment, or other life insurance contracts, when such dividends are used to purchase additional benefits for the employee. Dividends which can be attributed to employee contributions will not be included for this purpose.

If an employee is terminated and receives a total distribution prior to becoming fully vested in the plan, the ordinary income element will be apportioned on the same ratio as the total account. If the employee has contributed to the plan, his contributions are fully returned before determining the ratio of the ordinary income element to the total. The result, of course, dilutes the long-term capital gain element which is the result of appreciation of the employee's own contribution.

Many profit-sharing plans provide for limited cash withdrawal privileges. Withdrawals are taxed to the employee in the year of receipt at ordinary income rates. The amount available for withdrawal is normally limited to a percentage of the employer's contribution to the plan. However, for the purpose of determining the ordinary income element of a lump-sum distribution, cash withdrawals (or pretermination distributions as they are referred to in the proposed Regulations) will reduce both the income and capital gain elements of the account balance at the same ratio as the account balance stands at the beginning of the year in which the pretermination distribution is made. Many tax practitioners did not expect this treatment, so this is one of the popular misconceptions which was changed under the proposed Regulation.

Transitional Rules— Defined Contribution Plans

If the plan was already in effect on December 31, 1969, and the employee who receives a distribution was a participant prior to December 31, 1969, then the capital gain element of the distribution will also include the amounts accrued to the employee's benefit at December 31, 1969. The ordinary income element will be computed first, taking into account the employer's contributions, forfeitures, and dividends described above, for plan years beginning after December 31, 1969.

However, the amount accrued to the employee's benefit on December 31, 1969, is not necessarily a frozen dollar amount. If the plan has suffered losses since December 31, 1969, which is true of many plans today, the capital gain element may suffer some depreciation. Section 1.402(a)-2(c)(3) sets forth the rules for computing the ordinary income element of a total distribution when the adjusted pre-1970 balance and the post-1969 employer contributions exceed the actual amount available for distribution. Reading formulas in words is always a formidable task, and the proposed Regulations are no exception. Actually the formulas are quite simple, once the words are defined. The ordinary income element is the portion of the distribution which bears the same relationship to the total as the post-1969 employer contributions, forfeitures, etc., bear to the total of those contributions and the pre-1970 balance.

There is an exception to this rule. If the employer has maintained separate accounting records of the pre-1970 balance, the post-1969 employer contributions, and other related transactions, the loss may be allocated specifically rather than apportioned under the above rules. This election is the option of the employee. This would require separate accounting for all sales and exchanges of property held by the trust, or plan, at December 31, 1969, as well as separate accounting and allocation for related items of income and expense.

If a pretermination distribution is made from an employee's account which includes a pre-1970 balance, a portion of such distribution will be considered as coming from the pre-1970 balance. This will not change the taxation of the pretermination distribution, but will only reduce the pre-1970 balance available for capital gain treatment at the time of a total distribution.

Defined Benefit Plans

Separate accounts are not kept for each participant in a defined benefit plan. Therefore, the determination of the employee's accrued benefits at December 31, 1969, and the employer's contributions on his behalf for plan years beginning after December 31, 1969, is somewhat more complex. Under the proposed Regulations Section 1.402(1)-2(d), the ordinary income element of a total distribution made for any separation from employment other than by reason of death is to be determined "on the basis of level funding of the plan during the employee's participation in the plan, payment of employer contributions at the end of the plan year, and a growth rate of 6 percent per annum compounded annually.'

The Regulations provide for an ordinary income factor which is to be applied to the excess of the distribution over the employee's total voluntary contributions. The factor varies according to the number of years of participation by the employee in the plan. The factor is one for one year of participation and diminishes to .21152 for 45 years of participation. The ordinary income element determined by the use of the factor is further reduced by the employee's total mandatory contributions to the plan. The ordinary income element cannot exceed the excess of the distribution over the employee contributions.

Mandatory contributions are those employee contributions which are required as a condition (Continued on page 18)

REVIEWS

Writings in Accounting

DR. MARIE E. DUBKE, CPA, Editor Memphis State University Memphis, Tennessee



"Inflation and U. K. Published Accounts," Jeff Pearcy; JOURNAL UEC, October 1970.

Mr. Pearcy believes that the modest annual rate of inflation which has occurred in the United Kingdom during the past ten years (about 3% per annum) causes sufficient distortion to call for special adjustments in published accounts. In his article he recommends the use of inflation accounting in which balance sheets are restated in terms of the current value of money. The article includes a detailed example of the adjustments which need to be made to accomplish this restatement.

Inflation accounting is a method of accounting in money units which all have the same purchasing power. It differs from replacement cost accounting which he defines as a method of accounting in terms of physical units used in the business, converted to money. In order to account for inflation, it is necessary to use an index of the value of money. In his illustration, Mr. Pearcy uses the official Consumer Price Index published regularly in the United

Kingdom.

The effects of inflation are most noticeable when examining trends. Mr. Pearcy studied the figures of twelve companies for the period 1959 to 1968 and presents a graph which shows considerable differences between the companies' net profits after tax as published and as restated and between retained profits after tax as published and restated. In the early years the restated figures are higher than the published figures, but the reverse is true in the later years. A second graph compares the published figures of net profits expressed as percentages of shareholders' funds with the corresponding percentages after restatement. In the years following 1960, the restated figures are significantly lower than the published figures.

Mr. Pearcy feels that it would be too big a step initially to insist that all published accounts be adjusted for inflation. He therefore recommends that published tables of figures or diagrams covering more than the current and immediately preceding year be adjusted for inflation and that all companies be required to calculate and disclose the effect which would

result from adjusting the current year's charge for depreciation for inflation.

Although the article is written by an English accountant, inflation is, of course, not confined to the United Kingdom. This reviewer agrees with Mr. Pearcy that companies should disclose the effects of inflation on their figures, especially when figures for a number of years are presented.

Mary E. Burnet, CPA Rochester Institute of Technology

"Income Distribution: The Key to Earnings Per Share", Peter Knutson, The Accounting Review, Volume XLV, No.1, January 1970.

Opinion Number 15 of the Accounting Principles Board on earnings per share is analyzed and its shortcomings demonstrated in this informative article. The author's basic purpose is to examine rationally the area of income reporting in general and the reporting of earnings per share in particular. In Knutson's view, earnings reported today combine the concepts of income determination and income distribution in a procedure which fails to distinguish between the two concepts.

Knutson's solution to the EPS problem lies in separating income determination from income distribution and reporting the two concepts in separate statements. In his opinion, net income should in fact be allocated among all equities, not just to common stock equity. The author illustrates his ideas by developing separate statements of income distribution and determination. He believes using two statements would avoid some of the confusion and misunderstanding inherent in current reporting methods.

This article is well written, lucid, and offers a valuable and workable approach to solving the EPS controversy. It is recommended for readers interested in accounting theory and for accounting instructors teaching financial accounting.

> Linda H. Kistler, CPA Lowell Technological Institute

"Evaluate Your Computer Installation," William C. Ramsgard, Management Services, Vol. 8, No. 1, January-February 1971.

Mr. Ramsgard believes that many companies are vaguely dissatisfied with their data processing installations but don't quite know why. In his article he presents and explains a rating system in which EDP efficiency can be measured in seven major areas. The areas are software, hardware, documentation and organization, planning, testing, personnel, and protection. A total of 37 questions are asked and each question is assigned a certain number of points if the answer is "Yes" and another number of points if the answer is "No." Scores will range from a -53 to a +147 and may be judged as follows:

| 130 to 147 | Superior | 115 to 129 | Satisfactory | 90 to 114 | Average | 60 to 89 | Poor | Take immediate corrective action |

A high evaluation indicates that the computer installation is well organized and managed, but it fails to indicate whether the user is receiving the most appropriate quantity and quality of data to do his job. The computer output must be timely, meaningful, and well used by the recipient. A poor rating indicates that the data processing functions planning and control are such that it cannot deliver a good product.

The rating system, which Mr. Ramsgard calls the Dragsmar Evaluation, is evidently intended to be used by large or medium-sized companies. In the personnel section, questions are asked regarding programmers and analysts. Reference is also made in the hardware section to sales in the millions of dollars. It occurs to this reviewer that an evaluation such as this, or an adaptation of it, might be used by a small company which is considering acquiring a computer. A company would do well to ask itself whether its sales are large enough to justify having its own computer and whether it can afford programmers and analysts in addition to the personnel who will actually operate the equipment. If the answers to these and other questions are "No," this does not mean that the company must do without data processing. Perhaps a time-sharing arrangement or the use of a service bureau is the answer to the company's data processing needs.

> Mary E. Burnet, CPA Rochester Institute of Technology

"Accounting, Evaluation and Economic Behavior," Raymond J. Chambers; Prentice-Hall, Inc., Englewood Cliffs, N.J.; 1966, 376 pages, and "Accounting, Finance and Management," Raymond J. Chambers; Arthur Andersen & Co., Sydney, Australia; 1969, 750 pages.

"Accounting," writes Professor Chambers, "is concerned with some of the antecedents of

economic behavior."

Just as Australians use our language with a slightly unfamiliar sound, so does treatment of the common ideas of accountancy seem a bit exotic as presented by this much-published educator from the University of Sydney. He speaks his accounting with a different accent.

Accounting, Evaluation and Economic Behavior is an heroic attempt to develop accounting by the methods of science based on observations of actual conditions. Development moves from empirical evidence through conjecture, then testing and selection, until finally a theory evolves to fit all observations within the present economy. By turning away from the corpus of accounting postulates as a beginning point, this analysis avoids the more usual sound of postulate dissection. Instead, it works from the ground up, so to speak, and offers the method of construction as preferable to the method of criticism.

Accepting monetary signs as a prime language, Chambers' intent is to rewrite accounting statements so that they will be accurate reflections of the facts of business and, further, will resist warping and toning to beguile management, potential creditors, stockholders, or any interested users, vested or otherwise.

There is an implication of kinship with Copernicus who parted from his contemporaries in holding that the earth revolved around the sun and not the contrary. For Professor Chambers, accounting revolves around the realities of business, not necessarily the current postulates of accounting. He thinks like an economist, with the phraseology of economics, all of which accentuates the novelty of his idiom.

Accounting, Finance and Management refers frequently to the earlier text, above, but differs from it in form and scope. It is a collection of Chambers' papers regarding accounting and the financial world.

There is an echo of the unfamiliar accent as the author criticizes attempts by the accounting profession to appropriate some of the functions of management. He feels that a mix of analytical and decision-making objectives with the strict reportorial functions of accounting will soon subvert accountancy and ultimately render a disservice to management as the feedback tends to lose its impartiality.

Over and over he laments the ambiguity of accounting statements, particularly position statements, and says that too often they have little relevance to facts in the business environment. A principal source of error is, predictably, the fluctuating price level. At this point in his discourse, all foreign sound fades away. The accent becomes highly familiar.

As in most collected writings, a certain development in author viewpoint appears as the reader moves along in the chronology. The late chapters of the book, grouped as "Dessert and Coffee", are worth waiting for. Here one climbs over Chambers' celebrated wall and ventures out from the security and fallacy of professional isolation. Speaking of symbols that are the necessary tools of accountancy, Chambers points out: ". . . the misuse of symbols is fraught with the danger of losing what we have. We face the gravest danger of taking the symbol for the substance, of losing our apprehension of what is real, the advanced form of

which, of course, is psychosis."

Served with coffee, too, is some acerbic comment on American programs for advanced accounting education, the "accretion of additional specialisms." And from the chapter titled "New Pathways in Accounting": "The looseness, illogicality and irrelevance of much accounting is obvious to many, and is on the way to becoming notorious. The only question is whether the profession wishes to take a positive part in the advancement of practice or thought, or whether it prefers to wait until circumstances and pressures from beyond its ranks force improvement on it."

It would seem that we speak the same language, with the same inflection, after all.

Constance T. Barcelona The Camargo Club

"The Systems Study for the Smaller Municipality," Gary A. Luing, CPA, The Florida Certified Public Accountant, Volume 9, No. 3, December 1969. (Originally published in Municipal Finance, February 1969).

In this article, Mr. Luing, who is Assistant Dean, College of Business and Public Administration, Florida Atlantic University, Boca Raton, Florida, discusses the knowledge revolution and states that the problems facing executives today are quite different from those of vesterday. In addition, important decisions must be made about the computer and its use in decision-making. The computer is a very important tool of man used to conserve man's most important resource-manpower-but its use is limited by the user's imagination and initiative. If this is not kept in proper focus, there is danger of being overequipped or misequipped.

In discussing several information systems, Mr. Luing states that in any systems installation a complete analysis of the system must come first because "systems analysis, not the computer, generates the savings from EDP." Unfortunately, in many cases the complete analysis is not done because of the short-sighted

view towards the costs involved.

Mr. Luing also discusses the advantages and disadvantages of using a computer service or timesharing, leasing or purchasing a computer; and the human factors involved in systems im-

plementation.

The analysis of information systems should be a constant and full-time endeavor. This can be done by the existing staff. Too much emphasis upon the hardware is usually the case, and the human factors of systems implementation are ignored. Those who will operate within the system should take an active role in developing it if utmost utilization is to result.

> Wilhelmina H. Zukowska, CPA University of Miami

[&]quot;Training teaches the rules, but experience teaches the exceptions."

"The MIS Mystique: How to Control It," by Ivars Avots, Management Review, Volume 59, No. 10, October 1970.

Characteristics of computer implementation projects that make them difficult for management to handle are reviewed and approaches that should help management raise the odds in favor of success are discussed.

Most large computer system implementation projects are headed by men whose backgrounds are in the general area of data processing. Few are capable of determining what can and cannot be accomplished. There is no shortrun solution to this problem; however, the best chances lie with the project manager who knows the company well, who appreciates his unique role, and who can use staff assistance effectively. The manager must be concerned with both the computer efficiency and the technical impact of the application. Both affect the eventual cost of operating the system.

Modifications and consequent overruns of schedules and budget are often caused by inadequate definition of objectives and coordination of systems development at top management levels. After approval by management, functional specifications that describe what a program should do must become the basis for understanding between the users and the programming project. From the functional specifications, the project manager should develop a work breakdown which emphasizes end items rather than functions. From the work breakdown, each element needs to be developed further to the detail of a work package that can be controlled in terms of a schedule and budget.

Mr. Avots states "The most important ingredient of the project control process is communication." The project manager must keep in close touch with individual programmers and also act as an information filter to protect the programmer from ideas that may interfere with his productivity.

Despite the many problems, Mr. Avots concludes, "Formal status monitoring against milestones can be valuable if it is not used as an end in itself, but rather as a signal for more extensive technical progress reviews."

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TAX FORUM

(Continued from page 14)

of employment, as a condition of participation in the plan, or in order to receive full benefits under the plan. Voluntary contributions are all additional contributions made by the employee.

Once the ordinary income element is established, the capital gain element is determined in the same manner as under defined contribution plans. A different set of factors is provided for the determination of the ordinary income element when an employee dies before separation from service.

Transitional Rules— Defined Benefit Plans

If the plan was already in effect on December 31, 1969, the ordinary income factor is determined by taking into account only the portion of the distribution which was accrued by the employee during plan years beginning after December 31, 1969, and mandatory employee contributions made during the post-1969 period. In order to determine what was accrued by the employee after December 31, 1969, the

excess of the distribution over the employee's voluntary contributions is multiplied by one minus a fraction which is the accrued benefit at December 31, 1969, over the total distribution or benefit.

The accrued benefit at December 31, 1969, or as of the close of the last plan year beginning before December 31, 1969, is the periodic benefit to which the employee would be entitled at age 65 if his annual salary had remained the same from 1969 to his normal retirement age multiplied by a fraction which is the number of years with the employer in 1969 over the number of years of service he would have completed at normal retirement age.

The calculations under this Section of the proposed Regulations are numerous, and the variations for different kinds of total distributions are detailed and also numerous. It is impossible to adequately summarize and describe them in so limited space. It is nearly impossible just to follow the paragraph numbers. But, don't give up—the examples included in the various proposals clarify the provisions considerably; and once an example has been followed through, the words begin to make more sense.

ASSET VALUATION

(Continued from page 10)

of the ground, Alice came to the conclusion that it was a very difficult game indeed.²⁷

Fanciful? Yes, but Alice awoke from her dream and left her problems in Wonderland, whereas the accountant cannot turn away from his problems but must attack them with such proficiency and imagination as are available to him.

Valuation of assets, and of inventory in particular, is complicated by uncertainty as to future market conditions, plus the fluctuations of the monetary unit. Hendriksen points out: "An unstable monetary unit is a constraint on the application of accounting principles logically derived from the premise of a stable measuring unit." 28

Various valuation methods have been suggested in response to the impact of price-level

changes and to the shift in emphasis from the position statement to the income statement. Accountants hope that the excesses of overvaluation or undervaluation resulting from one method or another can be tamed by observing the doctrines of consistency and disclosure.

So, in the end, the subjective concepts reappear if, indeed, they have ever been absent. Accounting Research Study No. 1, The Basic Postulates of Accounting, contains the comments of Leonard Spacek as a member of the Project Advisory Committee for the American Institute of Certified Public Accountants. He reiterates the ageless ideals of justice, truth, and fairness. Accountancy is moving slowly, and by different paths, toward the achievement of ideals. Nevertheless, every professional would agree with Mr. Spacek: "My own view is that the one basic accounting postulate underlying accounting principles may be stated as that of fairness."

NOTES

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