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Research on the Evolution of Accounting Thought and Accounting Practice

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Volume 14, Number 1 **Spring 1987**

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REVIEWS

GUIDE FOR SUBMITTING MANUSCRIPTS

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THE TWILIGHT OF INCOME MEASUREMENT: TWENTY-FIVE YEARS ON

Abstract: The paper reviews events and trends since 1961, when the author incautiously forecast a possible decline in the importance of income measurement. He finds that little has changed in the intervening 25 years, and the forecast has not been borne out by events. Historical cost accounting has survived a period of serious inflation with hardly a dent. Earnings seem to be as important to financial analysts and to academic researchers as they ever were, and recent tax changes bring taxable income somewhat closer to accounting income than previously, thereby increasing the importance of the income concept rather than diminishing it.

> "Each of us sees the future differently, no doubt. But my own guess is that, so far as the history of accounting is concerned, the next twenty-five years may subsequently be seen to have been the twilight of income measurement."
>
> *The Accounting Review,* July 1961, p. 383.

If I had realized in 1961 that I might be called to account 25 years later for that incautious statement, I would probably have been more circumspect than I was. I did, it should be noted, say "may be seen," not "will be seen," and I could hide behind that. But one should know better than to make anything but vague prognostications. Kierkegaard wrote that life must be lived forwards, but it can only be understood backwards. That seems to be as good an excuse as any for these reflections on my 1961 paper.

REASONS FOR PESSIMISM

Let me remind the reader why I took such a pessimistic view of income measurement. The statement quoted above came at the end of a paper in which I analyzed the differences between economic and accounting concepts of income. Accounting income, I argued, was incomplete because, aiming only to measure *realized* income, it did not take into account unrealized changes in the value of net assets accruing during a period, while it did include value changes, if realized, that had accrued in an earlier period. On the other hand, economic income (increase in well-offness) took into account *all* changes in the value of net assets that occurred during a period, both those due to changes in the underlying circumstances and those due to mere changes in expectations about those circumstances. (The distinction can be illustrated by comparing the changes in the value of oil reserves resulting from new discoveries with changes in their value resulting from improved expectations about the percentage of existing reserves that can be recovered.) In my paper I discussed Sidney Alexander's[1] concept of "variable income," from which he attempts to exclude changes in expectations, and I concluded that such exclusion could not be made operational. This led me to the gloomy conclusion that neither accounting income, as it was then understood, nor economic income was a satisfactory measure of enterprise or management performance.

If by accounting income is meant income as accountants now measure it, i.e., historical accounting income, I see no reason to change that opinion. Yet the remarkable thing is that, despite the ferment of the inflation accounting debate since 1961, nothing fundamental has changed in regards to the practice of accounting for income. Accounting income, as a concept, is now what it was then, and it seems to receive as much attention now as it did then. Earnings per share is still the summary indicator that attracts more attention than any other. There is no support for my twilight prediction in that direction. It must be regarded more as a statement of what I thought *should* happen rather than what, in the light of hindsight, *did* happen.

To be sure, there have been some changes of emphasis. Though importance is still attached to "the bottom line," analysts pay more attention than they did to the components of income. The growth in the diversification of business units has led to segmented income statements, showing separate results for major lines of business and for the geographical areas in which a company does business. The results of discontinued businesses must be disclosed separately. Accounting standards

[1]Sidney Alexander's monograph, *Income Measurement in a Dynamic Economy*, in which variable income is discussed, was originally written for the Study Group on Business Income, organized by the American Institute of Accountants (now the American Institute of Certified Public Accountants) in 1948. It was given a limited circulation as one of the Group's *Five Monographs on Business Income*. It was revised by David Solomons, and the revised version is reprinted in *Studies in Accounting*, eds. W. T. Baxter and Sidney Davidson (London, The Institute of Chartered Accountants in England and Wales, 1977), pp. 35-85.

now require a number of other special items to be disclosed, e.g., research and development expenditures. But these are changes of detail; they do not alter the fundamental nature of accounting income.

THE INFLATION ACCOUNTING DEBATE

The year 1961, which saw the publication of my paper, also saw the publication of *The Theory and Measurement of Business Income,* by Edgar O. Edwards and Philip W. Bell (Berkeley: University of California Press, 1961). For most English-speaking accountants unfamiliar with the German and Dutch literature on accounting and changing prices, this book opened up new possibilities of bridging the gap between economic and accounting income. (That is not to say that any but a few academics paid any attention to it.) By showing in detail the valuation and bookkeeping procedures necessary to implement a system of current cost accounting to reflect changes in specific prices, combined with price level adjustments to correct for changes in the general price level, the book brought within reach a method for giving an approximation to at least one variant of economic income.

What the Edwards and Bell approach did, as is by now well known, was to compute current operating profit (the excess of sales revenues over the current cost of goods sold) and then to add or subtract real holding gains or losses (i.e., holding gains and losses net of inflation), including real holding gains or losses on monetary assets and liabilities. It could not claim to measure economic income in the fullest sense, for it did not take into account changes in the value of intangibles. But this was hardly a defect, for what was lost in theoretical purity was more than made up in practicability. Concentrating on tangible assets, the system used current costs, which could be derived, in most cases, from market information. The net income that it measured did approximate to the change in the real value of net tangible assets. Anyone interested in attaching a value to intangibles could do it for himself, being better equipped to do so than if only historical cost accounting results were available.

If, in 1961, I had foreseen the serious inflation of the late 60s and the 70s — in 1960, the consumer price index rose by 1.6%, in 1980 by 14.4% — *and* if I had foreseen the adamant refusal of businesses everywhere to adapt their financial reporting methods to inflationary conditions, even when a feasible method of doing so was at hand, I might have been even more pessimistic about the future of income measurement than I was; and again I would have been wrong. After flirting with constant purchasing power accounting (CPPA) for a while, the standard-setting bodies in both the USA and the UK developed current cost accounting standards. In both cases, this was in response to government initiatives. Here, the SEC's ASR190 (1976) mandated disclosures of replacement cost data, and this led to the FASB's Statement of Financial Accounting Standards (SFAS) No. 33 in 1979. In the UK the government-appointed Sandilands Committee reported in favor of current cost accounting in 1975, and this led to the issue by the Accounting Standards Committee of Statement of Standard Accounting Practice (SSAP) 16 in 1980. But the flowering of current cost accounting has been short-lived. With the substantial diminution in the rate of inflation in both countries since 1980, both standard-setting bodies are in retreat. SSAP 16 has been withdrawn, with no likely successor in view, and SFAS 33 has been made voluntary (which is equivalent to its abandonment). Once more, historical cost accounting has demonstrated its remarkable hold on life in the unlikeliest of circumstances.

THE RECOGNITION AND MEASUREMENT FIASCO

The FASB had unusual opportunity to pave the way for improvement in income measurement, without committing itself to taking action in the immediate future, when it published Statement of Financial Accounting Concepts (SFAC) No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises,* in 1985. This was to have been the crowning achievement of the Board's conceptual framework, on which work had been proceeding almost since the Board's inception in 1973. By definition, a conceptual framework is a statement of philosophy, not a standard or a set of standards, and it does not bind the Board to take any particular action. It does, however, impose a constraint on what the Board can do if its actions are to be seen to be consistent with its words. SFAC No 5 was expected, at least by some academics, to examine the historical cost accounting model in a fundamental way, to evaluate the information it provides, to analyze its strengths and weaknesses, and to point the way towards possible improvements, notably in the matter of income measurement. In the event, it did none of these things.

In regards to recognition, SFAC No. 5 formulated what it called fundamental recognition criteria that an item should satisfy in order to be recognized in financial statements. The Concepts Statement listed four criteria, but there were in reality only two. The first was that an item must satisfy the definition of

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an element of financial statements (as defined in SFAC No. 3). The second was that the item has a relevant attribute that can be measured with sufficient reliability. The terms "relevance" and "reliability" were defined in SFAC No. 2.

When it came to measurement, SFAC No. 5 had virtually nothing new to say. In various places in the statement, it described the existing historical cost accounting model with a complacency that showed little desire for change. If changes are to come, they are to be the result of a process of evolution. With this statement, coupled with the abandonment of SFAS No. 33, the Board virtually abdicated its role as a change agent, so far as income determination is concerned.

One of the major gaps in SFAC No. 5 was in the treatment of "earnings." The word was constantly used but never defined. Clarification of the meaning of "earnings" would have been a real contribution. Is it possible that this was not done because the result would have disclosed a philosophical mess that would have been hard to defend?

As further evidence that little of a fundamental nature has changed during the last 25 years, one may cite the ongoing debate between those who give primacy to the balance sheet in the accounting model and those who think that the balance sheet is little more than a list of balances left over after income has been determined by matching costs and revenues in the income statement. The debate, of course, is really over the nature of income. The "balance sheet school" views income as the increase in net worth that has occurred during a period — the economic view, one may say — while the "income statement" school sees income as the result of certain activities that have been completed during a period. One cannot but wonder why this argument generates so much heat, especially among the enthusiasts for "matching." Generally, the most passionate advocates of that view are financial executives, the preparers of financial statements. It seems likely that they take that position because matching gives them more control over the bottom line; matching offers a great range of options in deciding how to measure income. There are still many possible alternatives among the different ways of allocating costs, choosing among inventory cost-flow assumptions, selecting among depreciation methods and "managing" the timing of asset realizations. Even though the proliferation of accounting standards has closed off a number of alternatives, a goodly number remain. On the other hand, a consistent "value to the business" model, substantially tied to current cost, would offer fewer alternatives, contrary to the usual charge that it would be too subjective, and that is probably why it is so fiercely resisted by preparers.

ACCOUNTING INCOME VS. TAXABLE INCOME

One reason for my pessimism about the usefulness of the income concept in 1961 was the gap, which seemed to be getting wider, between accounting income and taxable income. The more the tax system relied on its own definition of the taxation base, and the less it relied on income as accountants defined it, the less the importance that would attach to accounting income. Now the Tax Reform Act of 1986 to a limited extent reverses that trend. Examples are the equating of corporate capital gains with ordinary income, and the requirement to capitalize certain interest and other costs of producing inventory that formerly could be expensed. Each step that brings taxable income more into conformity with accounting income increases accounting income's importance.

CONCLUSION

Many sophisticated accounting academics have lost patience with the income concept and have turned their backs on it. One of the best-known reactions of this kind is the paper by Beaver and Demski, "The Nature of Income Measurement" (*The Accounting Review*, January 1979), which concludes with a "challenge to accounting theorists . . . to address the primitive question of the propriety of the accrual concept of income." But, proper or not, "earnings" (the practical embodiment of the accrual concept of income) has been the focus of a vast amount of academic empirical research in the last two decades, and though there are signs that the volume of this kind of work is beginning to abate somewhat, it does not look as though the concept is about to drop out of the literature any more than it seems to be about to lose interest for financial analysts.

But let me draw back from further predictions. One bad call every 25 years is quite enough.

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THE DEVELOPMENT OF AGENCY THOUGHT: A CITATION ANALYSIS OF THE LITERATURE

Abstract: With the advent of new bibliographic data sources and new analytical techniques, accounting historians may now trace the development of accounting thought with the aid of bibliometric analysis. The objective of this paper is to discuss a social science view of history, discuss essential bibliometric concepts, and provide an example of citation analysis applied to the literature of agency theory — to demonstrate its use in historical research.

INTRODUCTION

In this paper we look at the historical development of a modern accounting research topic, agency theory. Instead of doing this in the traditional intellectual history manner, by a personal exploration of the relevant literature, we employ a much more mechanical and impersonal method and look at the development of agency theory using citation and co-citation analysis. More specifically, we are concerned with employing citation and co-citation analysis to determine: (1) the growth attributes of the agency literature with respect to citations and papers, (2) the influential researchers involved in the development of the agency literature, (3) the relationship between the most influential papers, (4) how the structure of the agency literature has changed over the 1972-84 time period, and (5) the body of knowledge that has had the greatest impact on the development of the agency literature, as perceived by accounting researchers. We classify our style of history as social science history in contrast to traditional history. The first part of the paper presents the social science approach to historical analysis. Part two presents our historical study of agency theory.

SOCIAL SCIENCE HISTORY

A prevailing tendency of historians this century has been to maintain the independence of history from science by treating history as an end in itself. Christopher Dawson [1956], a noted historian of comparative culture, traced this tendency back to ancient Greece.

> To the Greeks history was a form of rhetoric and had nothing in common with science, which finds its true pattern in mathematics and geometry. Science is concerned with the universal; history with the particular. Science belongs to the world of absolute and eternal reality; history to the world of time and change. Science is truth, history is opinion [p. 17].

This conception of history as being concerned only with the particular and not with general laws and patterns is held rather tenaciously by most present-day historians. Elton [1983], for instance, maintains that historical evidence is so marked by confusion and lack of certainty that it is "suitable only for the analysis of given events and problems, without the chance of discovering 'synthesizing principles' capable of ordering all social life and its history in a meaningful way" [p. 75].

The opposing position rejects the notion that there cannot be a history involved with regularities and general patterns. It rejects the attempt at prescribing a method of history that deals only with the particular in history. The social science approach wants to broaden historical methods, it does not reject the particularist method, rather, it advocates a diversity of methods [Clubb, 1981, p. 596]. The social science approach finds it difficult to accept that history can have no other end than simply the collection of essentially isolated facts for their own sake. If this were all that history aspired to it would be a type of intellectual pastime — mere antiquarianism. The social science approach looks for meaning and direction from the study of the past. And as for the opposition of science and history as posited by the Greeks: it has been shown to be invalid. Modern science does not aim "at the contemplation of unchanging truth. It is essentially inductive and experimental, and surveys the whole world of nature as it lives and moves" [Dawson, 1956, p. 19]. The non-particularist view, Dawson says, seeks to understand the past rather as "an organic process than as a mosaic of isolated facts" [p. 19].

Dawson's view is echoed by Bailyn in his 1981 presidential address to the American Historical Association. Bailyn calls for a synthesizing movement in modern history. He maintains that historical studies have proliferated at such an overwhelming rate that only a "besotted Faust would attempt to keep up with even a large part of this proliferating literaturenin any detail" [1982, p. 2]. One of the principal defining characteristics of social science history is that it deals primarily with aggregated data. The focus is on central tendencies of populations; there is no other way of dealing with groups as groups. No longer is history simply the history of monarchs and politicians, but also the history of the common man. Another important aspect of social science history is its use of social and economic forces as explanatory devices.

Empirical Laws

The traditional historian who takes as his subject matter a particular historical individual or event rejects the concept of forces as identifiable agents affecting historical events. He feels that such an approach must necessarily artificially abstract from an infinite variety of forces and that the patterns they formulate can never accommodate all the particulars, "and only rarely assists in the discovery and understanding of additional particular events" [Elton, p. 77]. Furthermore, social events are rather unique making them unrepeatable in detail, thereby greatly hampering the isolation of social causes. But, as Fairthorne [1969] says, this causal insensitivity while hampering explanation correspondingly helps prediction.

> Provided that the unknown causes are not augmented or replaced by different ones, the general pattern of events is likely to be repeated. Given enough carefully collected and presented data, both the pattern and its persistence can be estimated carefully in numerical terms. This can be very useful, pending explanation [p. 320].

Whether unknown causes remain stable over time is a question that would probably divide historians again along the traditionalist, pattern seeker lines. Eventually only successful prediction will decide the issue. A good example of some social data that fits in well with Fairthorne's view is bibliographic data: properties of recorded discourse and behavior appertaining to it. He labels the quantitative treatment of such data — bibliometrics. The data underlying our historical example in Part II of this study, citations and co-citations, fall squarely under the bibliographic description. Before we turn to a discussion of citation data and bibliometrics we will briefly comment on what is considered by many to be the most successful of the social science approaches to history — cliometrics.

Cliometrics

A most successful social science approach to history has been cliometrics: the metrics of the muse of history — Clio. Cliometrics is the wedding of neoclassical economic theory to nineteenth-century economic life. A proponent of cliometrics, Donald McCloskey [1978], suggests that its two major achievements are, first, the rethinking of bad economics and reshuffling of misused numbers [p. 15], and second "the extension to history of modern economic counting" [p. 17]. Douglass North [1978, p. 78], another cliometrician, considers the systematic use of price theory as a major achievement and defining characteristic. In their well known work, Robert Fogel and Stanley Engerman show how cliometric studies have been successful in changing long standing beliefs about the past concerning the ante bellum South's economic viability and of the economics of its slave system [1974].

Despite these successes cliometrics has its critics. North (a cliometrician) [1978] has been among its most vocal critics. He contends that the cliometric approach to economic history avoids what he considers to be an essential task of economic history: that of showing how economic constraints have evolved through time [p. 77]. North does not reject cliometrics, rather he attempts to bolster the old style economic history so that it is not overwhelmed by cliometrics. He feels that the interests of pure economic theory require a strong old style economic history. North looks for the reasons why constraints change over time, rather than how the changes affect economic outcomes [1978, p. 78]. And cliometrics, in his opinion, at best can focus on the how rather than the why of change.

Citations and Co-citations

With the advent of commercial citation indices in the physical sciences since the early 1960's and in the social sciences since 1975 the use and analysis of citations has increased. It also demonstrates an additional opportunity — as we shall argue — for bibliometric application. Beside being used as a unique library referencing tool, citation counts and citation analysis have proved quite useful for evaluation purposes. A number of studies [Clark, 1954; Bayer and Folger, 1966; Orr and Kassab, 1965; Robinson and Adler, 1981] have shown that citation counts have correlated better with experts' rankings of researchers than did the actual number of papers published, level of income, and number and quality of their students. In the accounting literature

[McRae, 1974] used citations to analyze the information flow network between accounting journals and other business and economic journals. Dyckman and Zeff [1984], used citations in their analysis and evaluation of the contribution to accounting research that the *Journal of Accounting Research* made during its first 20 years of publication. Brown and Gardner [1985a, 1985b] used citations to assess the overall impact of major research journals on contemporary accounting research, and to evaluate the research contributions of accounting faculty and doctoral programs. Finally Gamble and O'Doherty [1985a, 1985b] used citations to rank accounting departments and to analyze the development of the smoothing of accounting income literature.

Co-citation analysis is a summarizing technique that is particularly useful for visually displaying the links between research papers. Co-citation analysis is concerned with the number of papers that have cited a selected pair of documents [Small, 1973]. An allied technique is called bibliographic coupling which uses the number of references a selected pair of papers have in common to measure the similarity of their subject matters [Kessler, 1963]. But bibliographic coupling is rather static in nature and mainly suited to comparing papers published in a given year. It does offer a good index of similarity but it does not readily measure how a discipline is changing over time. Co-citation analysis, on the other hand, accumulates co-citations over time and shows how older papers are linked with newer ones (through the mechanism of being jointly cited). This method provides a systematic empirical alternative to the 'review' article written by a recognized authority in a field. Such articles are seldom written because of the high cost in time and effort [Herring (1968); Garfield (1977)]. Co-citation analysis, although essentially in an introductory stage, warrants our consideration as an effective on-going approach to increasing the availability of 'review' articles.

DATA COLLECTION

The objective of our data collection efforts is to compile citations by accounting articles in the agency area from 1972-1984.[1] Before the above objective can be achieved, a source index

[1]The 1972-84 time period was selected because it represents the period of time when: (1) the agency theory literature began to develop into two distinct areas of research, (2) the agency literature experienced its maximum growth (this can be verified by observing Table 1) and (3) the accounting agency theory literature was truly multidisciplinary, i.e., it was influenced by writings outside of accounting (see pg. 12).

and a citation index must be compiled.[2] Our initial step in compiling our source index was to follow the suggestion by Jensen [1983] and separate the agency theory literature into two groups — positive theory and principal-agent. The article employed to initiate the search for source articles in positive theory was Watts and Zimmerman [1978]. A survey article by Baiman [1982] was employed to initiate the search for source articles in the principal-agent area.

The Watts and Zimmerman article was selected because, in two different studies, it was selected as one of the most influential positive theory papers in accounting.[3] Thus, a vast number of source articles can be obtained simply by collecting citations to the Watts and Zimmerman paper. The survey article, by Baiman, was selected because it provided us with a number of articles devoted to the principal-agent area.

The second step, in compiling our source index, was to collect citations to the Watts and Zimmerman and Baiman papers. This was accomplished with the aid of the Social Science Citation Index (SSCI).[4] It should be noted that, in terms of compiling our source index, we only selected citations to the above papers by other agency papers. Our judgement was used to determine whether a document was an agency theory related document or not. Generally, the title or abtract was enough to classify a document. Where this did not suffice, the reference list or footnotes were checked to see if other agency theory documents were referenced; if they were, the text of the referencing document was studied to determine the classification. A paper was not classified as related to the agency literature if it dealt with agency theory in a incidental fashion.

The third step involved in compiling the data base was to again search the SSCI for citations using, this time: (1) The citations selected from step two and (2) selected references contained in the Watts and Zimmerman and Baiman papers. The fourth step involved cycling through the SSCI (by hand and

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[2]A source index is no more than a listing of papers that are relevant to the particular area of interest. A citation index is an index which contains the citations of the source papers.

[3]See Brown and Gardner [1980a] and Dyckman and Zeff [1984].

[4]The SSCI is a quarterly index (with annual and five year accumulations) complied from the references and bibliographies found in the articles in more than 1,400 source journals (plus some books, mainly annuals). The breath of coverage is extremely wide: the source journals include virtually all major research oriented journals. Further, the SSCI does not contain all accounting journals (See Gamble and O'Doherty [1985a] footnote 3). Thus, this is a *limitation* of citation analysis as the SSCI is not a complete source, at this time.

on-line), for additional citations, using the citations found in step three and selected references from those citing documents. This process was continued until all of the citations by accounting articles in the agency area from 1972-1984 were collected.

DATA ANALYSIS

Table 1 displays the number of articles, citations and the average number of citations per paper for the journals in which the cited articles appeared.[5] Journal of Financial Economics (JFE) has the highest average citation rate, followed by Journal of Political Economy (JPE), American Economic Review (AER) and Journal of Accounting & Economics (JA&E). Further, Accounting Review (AR), Journal of Accounting Research (JAR) and JA&E account for 55% of the total citations and 56% of total papers. The high average citation rate enjoyed by JFE was greatly influenced by Jensen and Meckling's [1976] 49 citations.

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[5]The other accounting category includes journals such as, *Accounting Organizations & Society, Abacus, Journal of Accounting & Public Policy* and the *Australian Journal of Management*. The other economic category includes journals such as, *Econometrica, Economica, Journal of Public Economics, Journal of Economic Theory, Journal of Law and Economics*, and *Review of Economic Studies*.

TABLE 1

Title of Journal Publishing Cited Article

Year Published	AR	JAR	JA & E	JFE	JPE	AER	BJE	MS	Other Acctg.	Other Econ.
1937	–		–	–	–	–	–	–	–	1;7-7
1964	–	1;3-3	–	–	–	–	–	1;9-9	–	1;1-1
1967	–	2;3-1.50	–	–	–	–	–	–	–	–
1968	2;12-6*	–	–	–	–	1;1-1	–	–	–	1;13-13
1969	–	1;15-15	–	–	–	–	–	–	–	–
1970	–	–	–	–	–	–	–	–	–	–
1971	–	–	–	–	–	1;5-5	–	–	–	–
1972	–	1;15-15	–	–	–	1;13-13	–	–	–	–
1973	–	–	–	–	–	1;15-15	–	–	–	3;7-2.33
1974	1;1-1	1;8-8	–	–	–	–	–	–	–	2;8-4
1975	1;1-1	3;14-4.66	–	1;3-3	–	1;1-1	–	–	–	1;1-1
1976	2;17-8.50	1;10-10	–	1;49-49	1;5-5	1;7-7	1;9-9	–	–	1;2-2
1977	3;7-2.33	1;5-5	–	–	–	–	1;1-1	–	1;9-9	–
1978	2;48-21.50	–	–	–	–	2;12-6	2;14-7	1;1-1	–	–
1979	3;8-2.66	4;3-.75	1;14-14	1;12-12	–	1;1-1	3;11-3.67	1;14-14	–	5;20-4
1980	2;12-6	7;33-4.7	1;12-12	–	1;13-13	–	–	1;2-2	–	3;10-3.33
1981	3;12-4	6;18-3	6;54-9	–	–	–	–	–	–	2;10-5
1982	3;7-2.3	4;21-5.25	4;16-4	–	–	–	–	1;2-2	6;17-2.8	1;1-1
1983	6;16-2.67	4;8-2	6;14-2.3	–	–	–	–	–	5;3-.60	2;5-2.50
1937-83	28;136-4.85	37;156-4.21	18;110-6.11	3;64-21.33	2;18-9	9;55-6.11	7;35-5	5;28-5.60	12;29-2.41	23;35-3.69

AR: Accounting Review
JAR: Journal of Accounting Research
JA & E: Journal of Accounting & Economics
JFE: Journal of Financial Economics
JPE: Journal of Political Economy
AER: American Economic Review
BJE: The Bell Journal of Economics
MS: Management Science

*Number of Articles; Citation(s)–Average number of citations per paper

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Table 2 displays the classification of papers, along with their citations, by the journals in which they appeared. In terms of principal-agent papers, 47% were found in AR and JAR; of the 47%, both journals accounted for roughly the same percent. The citation percentage for the above two journals was 46%; of that 46%, AR acounted for 22% and JAR 24%. Economics journals accounted for approximately 45% of principal-agent papers and 44% of citations.

TABLE 2

Classification of Papers and Citations by Journal

	Positive Theory		Principal-Agent	
	Papers	**Citations**	**Papers**	**Citations**
AR	12	63	16	73
JAR	20	77	17	79
JA & E	18	110	0	0
JFE	3	64	0	0
JPE	2	18	0	0
AER	2	12	7	43
BJE	0	0	4	24
MS	0	0	5	28
Other Acctg.	10	24	2	5
Other Econ.	3	7	18	78

With respect to positive theory papers, 72% were located in AR, JAR and JA&E; of that 72%, AR accounted for 14%, JAR 30% and JA&E 28%. In terms of citations, however, AR accounted for 17%, JAR 20% and JA&E an impressive 30%. Economics journals only accounted for 13% of total positive theory papers with an impressive 29% of total citations.

Table 3 reveals that over 80% of all citations are to articles published from two to ten years prior to the citing article. This suggests a tendency for earlier published papers to be cited less frequently.

TABLE 3

Age Distribution of Citations

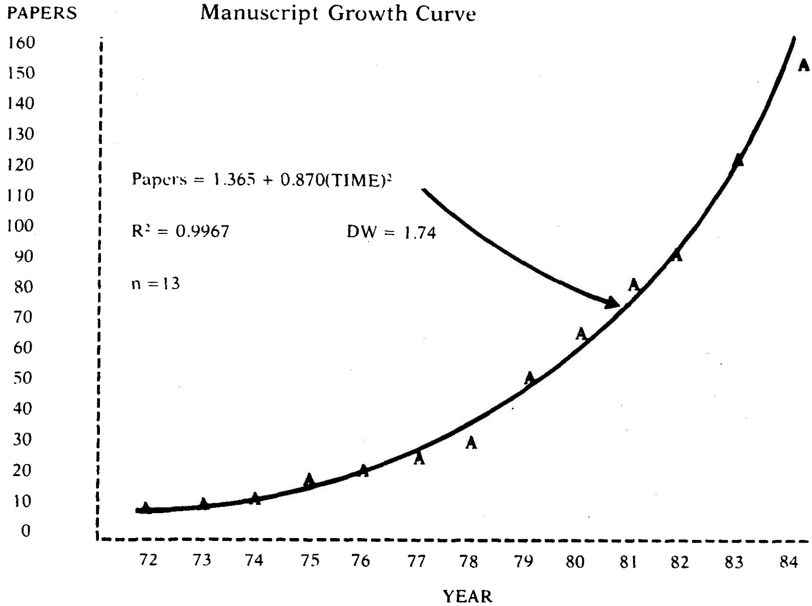
Years of age at time cited*	Number of Citations	Percent of citations
0 - 1	60	8%
2 - 5	488	68%
6 - 10	132	19%
11 - 15	22	3%
16 - 20	7	1%
20 - over	7	1%

*Citations were placed in categories by computing the difference between the year cited and the year that the cited item was published.

Figures 1 and 2 provide information regarding the growth attributes of the agency literature. Figure 1 shows the cumulative number of papers for the 1972-1984 time period and Figure 2 shows the cumulative number of citations relative to the cumulative number of papers for the same period of time.[6]

FIGURE 1

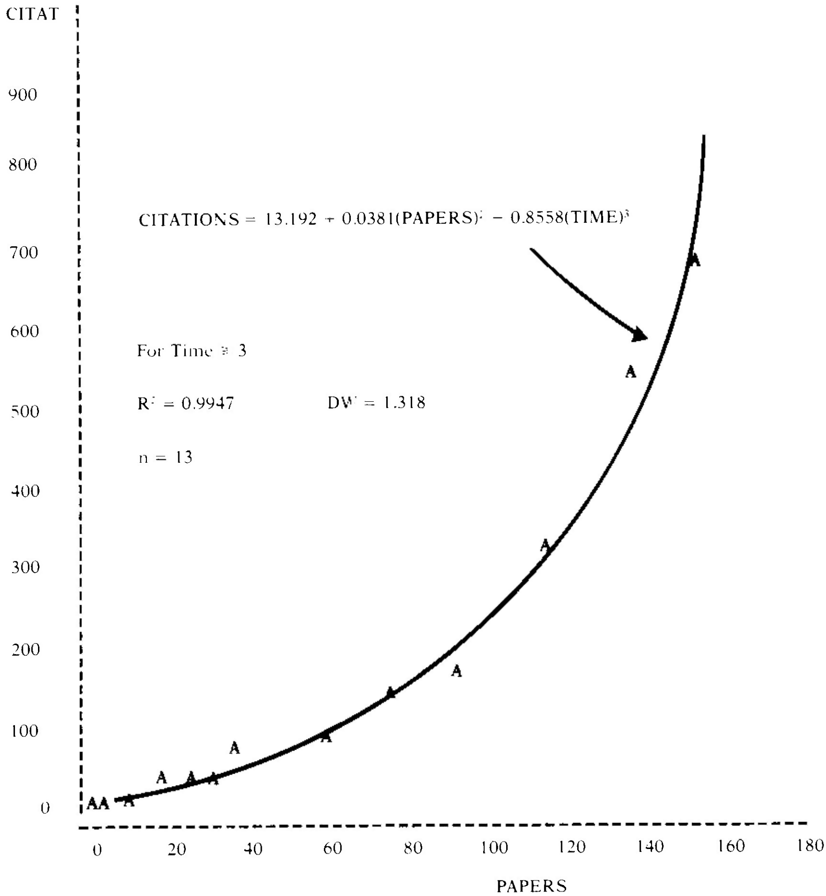
Manuscript Growth Curve



[6]Papers published prior to 1972 were excluded from the number of papers because, for purposes of this analysis, they are considered as outliers.

FIGURE 2

Citations vs Number of Papers



Curves were fitted to both relationships using a wide range of polynomials and exponential growth formulations. The best fitting models, however, proved to be simple quadratics. The citation growth did not result in a single equation which fits the curve well, over the entire range of data, due to the very flat portion in the first several years. The best fitting curve is reported in Figure 2 and tracks the data quite closely from the third year forward. The negative coefficient on the time variable suggests that as the topic begins to mature, early references begin to disappear from the citations. The time varible takes on the values 1, 2, 3, . . . starting with the first year in the sequence (1972) and thus measures the years of maturity of the agency theory literature.

It should be noted that this particular study has only thirteen years of data and thus is a small sample size for testing for the assumptions of a regression model (especially normality). The Durbin-Watson statistics is not significant at the 5% level for the time growth of papers and is in the grey area at the 5% level for the citation growth curve and is not significant at the 1% level. However, potential departures from normality are not deemed critical here since the regression coefficients are unbiased estimators and hypothesis testing is not a principal concern in this paper.

Co-citation Analysis

Co-citation analysis is concerned with the number of papers that have cited a given pair of papers. The co-citation methodology commences with the determination of the most cited papers in a specialty. The next step in performing co-citation analysis is the determination of co-citation strength between pairs of papers. The strength of co-citation between two papers is determined from a source index. Each of the two papers is used to scan the references of each source item, from the source index, to determine the number of identical citing items. An identical citing item is simply an article which has cited both papers, therefore co-citation strength is a measure of the number of times a pair of papers is jointly cited by a source item. Thus in measuring co-citation strength, we measure the degree of relationship or association between papers as perceived by the population of citing authors. Co-citation analysis is a valuable tool because it holds the potential to provide new insights into processes of growth and response to scientific discovery by relating coincident uses of cited material [Griffith, 1976].

A citation diagram (map) is a visual display of the co-citation relationship between papers. Citation diagrams have been used for diverse purposes. For example, Garfield [1979] investigated the history of the Genetic Code, demonstrating the significance of nodal papers in a network; Griffith [1973] diagramed the natural sciences literature.

Our co-citation analysis begins by selecting those papers with seven or more citations (see Table 4). The seven citation criterion yielded twenty-nine papers; of those 29 papers selected, 44% are from non-accounting journals. Further, JA&E accounts for approximately 46% of the accounting papers followed by JAR (33%) and AR (21%).

TABLE 4

Twenty-Nine Most Highly Cited Documents

Rank	Citations	Author(s)	Title, Journal, Date, Vol.
25 (tie)	7	R. H. Coase	"The Nature of the Firm," *Economica, New Series,* 1937, Vol. 4.
22 (tie)	9	K. S. Arrow	"Control in Large Organizations," *Management Science,* 1964, Vol. 10.
9 (tie)	13	R. B. Wilson	"The Theory of Syndicates," *Economica,* 1968, Vol. 36.
24	8	R. S. Kaplan	"Optimal Investigation Strategies with Imperfect Information," *Journal of Accounting Research,* 1969, Vol. 7.
12 (tie)	12	A. A. Alchian, and H. Demsetz	"Production, Information Costs, and Economic Organization," *American Economic Review,* 1972, Vol. 62.
6 (tie)	15	J. S. Demski	"Optimal Performance Measurement," *Journal of Accounting Research,* 1972, Vol. 10.
6 (tie)	15	S. A. Ross	"The Economic Theory of Agency: The Principal's Problem," *American Economic Review,* 1973, Vol. 63.
18 (tie)	10	J. S. Demski	"Uncertainty and Evaluations Based on Controllable Performance," *Journal of Accounting Research,* 1976, Vol. 14.
25 (tie)	7	S. J. Grossman, and J. Stiglitz	"Information and Competitive Price Systems," *American Economic Review,* 1976, Vol. 66.
1	49	M. C. Jensen, and W. H. Meckling	"Agency Costs and the Theory of the Firm," *Journal of Financial Economics,* 1976, Vol. 3.

22 (tie)	9	J. A. Mirrless	"Optimal Structure of Incentives and Authority within an Organization," *The Bell Journal of Economics*, 1976, Vol. 7.
16 (tie)	11	E. Daniel Smith	"The Effect of the Separation of Ownership From Control on Accounting Policy Decisions," *The Accounting Review*, 1976, Vol. 51.
4	19	J. S. Demski and Gerald A. Feltham	"Economic Incentives In Budgetary Control Systems," *The Accounting Review*, 1978, Vol. 53.
18 (tie)	10	M. Harris and A. Raviv	"Some Results on Incentive Contracts with Application to Education and Employment, Health Insurance, and Law Enforcement," *The American Economic Review*, 1978, Vol. 68.
2	24	R. L. Watts, and J. L. Zimmerman	"Towards a Positive Theory of the Determination of Accounting Standards," *The Accounting Review*, 1978, Vol. 53.
16 (tie)	11	B. Homstrom	"Moral Hazard and Observability," *The Bell Journal of Economics*, 1979, Vol. 10.
5	16	R. L. Haggerman and M. E. Zmijewski	"Some Economic Determinants of Accounting Policy Choice," *Journal of Accounting and Economics*, 1979, Vol. 1.
12 (tie)	12	C. W. Smith, Jr. and J. B. Warner	"On Financial Contracting: An Analysis of Bond Covenants," *Journal of Financial Economics*, 1979, Vol. 3.
9 (tie)	13	S. Baiman and J. S. Demski	"Economically Optimal Performance Evaluation and Control Systems," *Journal of Accounting Research*, Supp., 1980, Vol. 18.
25 (tie)	7	D. S. Dhaliwal	"The Effect of the Firm's Capital Structure on the Choice of Accounting Methods," *The Accounting Review*, 1980, Vol. 55.
12 (tie)	12	G. Foster	"Accounting Policy Decisions and Capital Market Research," *Journal of Accounting and Economics*, 1980, Vol. 2.
3	20	E. F. Fama	"Agency Problems and the Theory of the Firm," *Journal of Political Economy*, 1980, Vol. 88.
25 (tie)	7	M. Harris and R. M. Townsend	"Resource Allocation Under Asymmetric Information," *Econometrica*, 1981, Vol. 49.

18 (tie)	10	R. Bowen and E. W. Noreen	"Determinants of the Corporate Decision to Capitalize Interest," *Journal of Accounting and Economics,* 1981, Vol. 3.
9 (tie)	13	D. W. Collins, M. Rozeff and D. Dhaliwal	"The Economics Determinants of the Market Reaction to Proposed Mandatory Accounting Changes in the Oil and Gas Industry," *Journal of Accounting and Economics,* 1981, Vol. 3.
25 (tie)	7	F. Gjesdal	"Accounting For Stewardship," *Journal of Accounting Research,* 1981, Vol. 19.
12 (tie)	12	R. W. Holthausen	"Evidence on the Effect of Bond Covenants and Management Choice of Accounting Techniques: The Case of the Depreciation Switch-Back," *Journal of Accounting and Economics,* 1981, Vol. 3.
6 (tie)	15	R. Leftwich	"Evidence of the Impact of Mandatory Changes in Accounting Principles on Corporate Loan Agreements," *Journal of Accounting and Economics,* 1981, Vol. 3.
18 (tie)	10	M. Zmijewski and R. Hagerman	"An Income Strategy Approach to the Positive Theory of Accounting Setting/Choice," *Journal of Accounting and Economics,* 1981, Vol. 3.

Each of the twenty-nine papers in Table 4 was paired with every other paper to generate twenty-eight pairs for each paper. Each pair of papers was used to scan the references of each source item to determine the number of identical citing papers.[7] Figure 3 was developed based upon the number of identical citing items for each pair of papers. The scale contained at the bottom of the Figure was used to select those relationships between papers that would be included in the network and to provide a way to display the co-citation strength between the papers.

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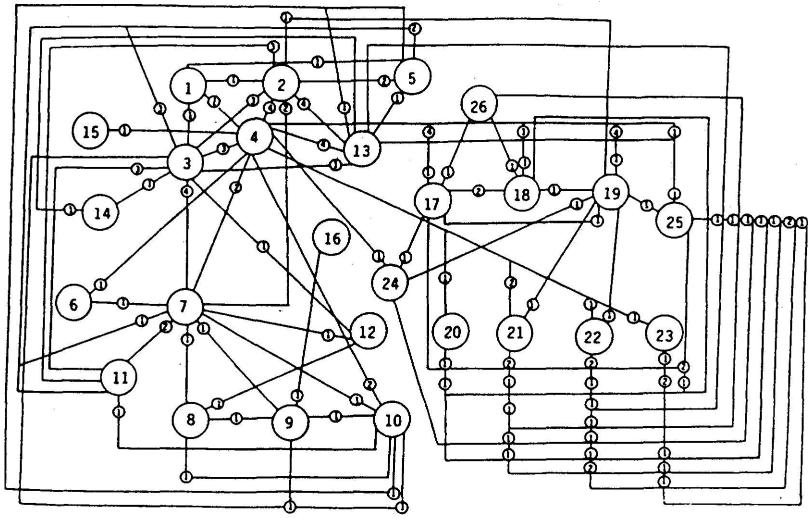
[7]Kaplan [1969], Grossman and Stiglitz [1976], and Holmstron [1979] are excluded because they have less than 6 co-citations with the other papers.

FIGURE 3

Co-citation Network for Frequently cited Agency Theory Papers



LEGEND

1 Coase [1937]
2 Alchian and Demesetz [1972]
3 Ross [1973]
4 Jensen and Meckling [1976]
5 Harris and Raviv [1978]
6 Arrow [1964]
7 Wilson [1968]
8 Demski [1972]
9 Demski [1976]
10 Demski and Feltham [1978]
11 Mirrless [1976]
12 Baiman and Demski [1980]
13 Fama [1980]
14 Harris and Townsend [1981]
15 Smith [1976]
16 Zimmerman [1979]
17 Watts & Zimmerman [1978]
18 Haggerman & Zmijewski [1979]
19 Smith and Warner [1979]
20 Zmijewski & Haggerman [1981]
21 Leftwich [1981]
22 Holthausen [1981]
23 Bowen and Noreen [1981]
24 Foster [1980]
25 Collins, et. al. [1981]
26 Dhaliwal [1980]

NUMBER OF Co-CITATIONS

Not shown	1-5
1	6-10
2	11-14
3	15-26
4	26 or more

Figure 3 provides insights regarding the agency theory literature. First, the agency theory literature can be analyzed in terms of two phases. The first phase, represented by papers 1-16, is the original research front.[8] In terms of the research front, it

[8]Price [1965], made the following comments regarding a research front " . . . Since only a small part of the earlier literature is knitted together by the new year's crop of papers, we may look upon this small part as a sort of growing lip or epidermal layer, an active research front" [p. 512].

appears that Wilson [1968], Alchian and Demsetz [1972], Ross [1973], Jensen and Meckling [1976] and Fama [1980] are principal papers, i.e., the papers that have the highest co-citation relationship with the other papers. This suggest that economics literature was very instrumental in agency theory development. Further, it appears that all of the accounting principal-agent papers are related either directly or indirectly through the influence of Demski. Finally, it should be noted that the research front is dominated by principal-agent papers.

The second phase, represented by papers 17-26, is representative of the dominant form of present day agency theory — positive theory. Notice that the only links between the research front and present day agency research are provided by Jensen and Meckling [1976] and Fama [1980]. Further, present day agency theory, in accounting, appears to be dominated by JA&E papers. The impact of JA&E on the agency theory literature is probably due to the fact that it mainly publishes agency related papers. It should also be noted that, based upon the co-citation relationship between the papers, JA&E papers heavily cite each other. Finally, phase two suggest a structual shift in the agency literature from principle-agent to positive theory.

As was stated above, the first phase of the agency literature, which is composed of a number of different papers published in a variety of journals, is regarded as the research front. Within the research front, co-citation strength varies from one to four. Thus, the following question emerges: What caused certain papers to have a stronger co-citation link than others? The paragraphs below will provide an answer to that question for those papers with 16 or more citations.[9]

Alchian and Demsetz [1972] and Coase [1937], Alchian and Demsetz [1972] and Ross [1983], Alchian and Demsetz [1972] and Jensen and Meckling [1976], Alchian and Demsetz [1972] and Mirrless [1976], Alchian and Demsetz [1972] and Fama [1980], are perceived by the citing authors to have a strong relationship because of the following reasons:

(1) Alchian and Demsetz [1972] extended Coase's [1937] theory of the firm.

[9]Even though Coase [1937] does not have a high co-citation strength with the other papers, it will be used to gain insight regarding its relationship with those papers that are highly cited. That is, who extended Coase's pioneering work. Further, we are defining structure as the composition of papers that make-up a field of study.

(2) Alchian and Demsetz [1972] and Ross [1973] are both, in substance, concerned with the principal's problem in an agency setting. Alchian and Demsetz [1972] approach the subject matter from a qualitative perspective and Ross [1973] quantitatively in terms of conditions of uncertainty.
(3) Jensen and Meckling [1976] extended Alchian and Demsetz's [1972] definition of a firm.
(4) Alchian and Demsetz [1972] and Mirrless [1976] are both concerned with contracts, Alchian and Demsetz [1972] from a qualitative perspective and Mirrless [1976] quantitatively in terms of optimality.
(5) Fama [1980] extended Alchian and Demsetz's [1972] definition of a firm.

Ross [1973] and Jensen and Meckling [1976], Ross [1973] and Wilson [1968], Ross [1973] and Mirrless [1976], Jensen and Meckling [1976] and Fama [1980] are perceived by the citing authors to have a strong relationship because of the following reasons:

(1) Ross [1973] and Jensen and Meckling [1976] are related because they both are concerned with agency relationships.
(2) Ross [1973] and Wilson [1968] are related because they both are concerned with the determination of an optimal fee schedule.
(3) Ross [1973] and Mirrless [1976] are related because they both are concerned with optimal incentives.
(4) Jensen and Meckling [1976] and Fama [1980] are related because they both are concerned with the extension of Alchian and Demsetz's [1972] definition of a firm.

SUMMARY AND CONCLUSION

The impact of total accounting and economics papers on the development of principal-agent research has been approximately the same for the 1972-84 time period. However, in the positive theory area, accounting researchers have had the greater impact. This impact is due to JA&E (a journal devoted to further development of positive theory) and its self-citation practices.

On an aggregate basis, agency theory papers (from 1972-84) grew at a rate of 1.73% with respect time and citations grew .0762 with respect to papers and −1.7116 with respect to time. The negative time coefficient for citations is consistent with the findings in Table 3, i.e., older papers are cited less often than current ones. The findings in Table 3 can also be related to Price's

[1970] immediancy index which is the percent of total references that cite literature in the last five years. The immediancy index calculated for the agency theory literature is approximately 76%. It should be noted that this high immediancy index is due to the fact that the agency theory literature is relatively young and, again, the influence of the JA&E (which was started in 1979).

In terms of papers with 7 or more citations, economics has had a greater impact than accounting, on principal-agent research. However, accounting researchers have had a greater impact on positive theory research. The co-citation map revealed that the initial research front is dominated by principal-agent papers. however, a structural shift occured around 1979, from principal-agent to positive theory. This structural shift was caused by JA&E. The map also confirms Jensen's [1983] observation that the principal-agent and positive theory literatures "reference each other less than one might expect given the closeness of their topics" [p. 334]. Finally, the co-citation map enabled us to determine which highly cited papers were perceived by researchers to have a strong relationship and why.

In this paper, we have demonstrated the use of citation analysis and suggest that it can be profitably used by historians to study the development of accounting thought in general. Because of the type of date, and the attendant technique used to present and analyze them, our paper falls under the general heading of bibliometrics.

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THE DIAGRAM OF THE COST SYSTEM OF HANS RENOLD LTD. — A BLUEPRINT FOR ACCOUNTING FOR ROBOTS

Abstract: Knowledge of accounting history can be a great aid in solving accounting problems of today and tomorrow. One example of this is the use of a cost diagram of Church and Renold and the writings of Church to solve the problem of accounting for robots.

The purposes of this research note are the presentation of a diagram of an accounting system for a highly capital intensive firm and the illustration of the relationship that system has for the accounting for robots. This diagram was found in October, 1984 in the substantial archives of Renold Chains Limited in Wythenshawe (near Manchester) England, while I was conducting a sabbatical research project on Alexander Hamilton Church. This research project is a follow-up on work I have been doing on the redesigning of cost accounting for companies using robots.[1]

Church was an electrical engineer who became quite active in cost accounting at the turn of the 20th Century. He went from a two-year assignment with B. & S. Massey in Manchester to an assignment with Hans Renold from 1900 to 1905 [Urwick and Wolf, 1984, p. 116]. Church later resettled in the United States and wrote and practiced extensively in management, accounting, and industrial engineering until his death in 1936 [pp. 115-7]. Hans Renold, like Church, was chosen by Urwick as one of the first 70 pioneers of management [pp. 58-60]. Renold was also an engineer who was, as a disciple of F. W. Taylor, in the forefront of the scientific management movement in Great Britain. Renold and Church's system was considered to be the foundation of modern scientific costing in Great Britain [pp. 58-9].

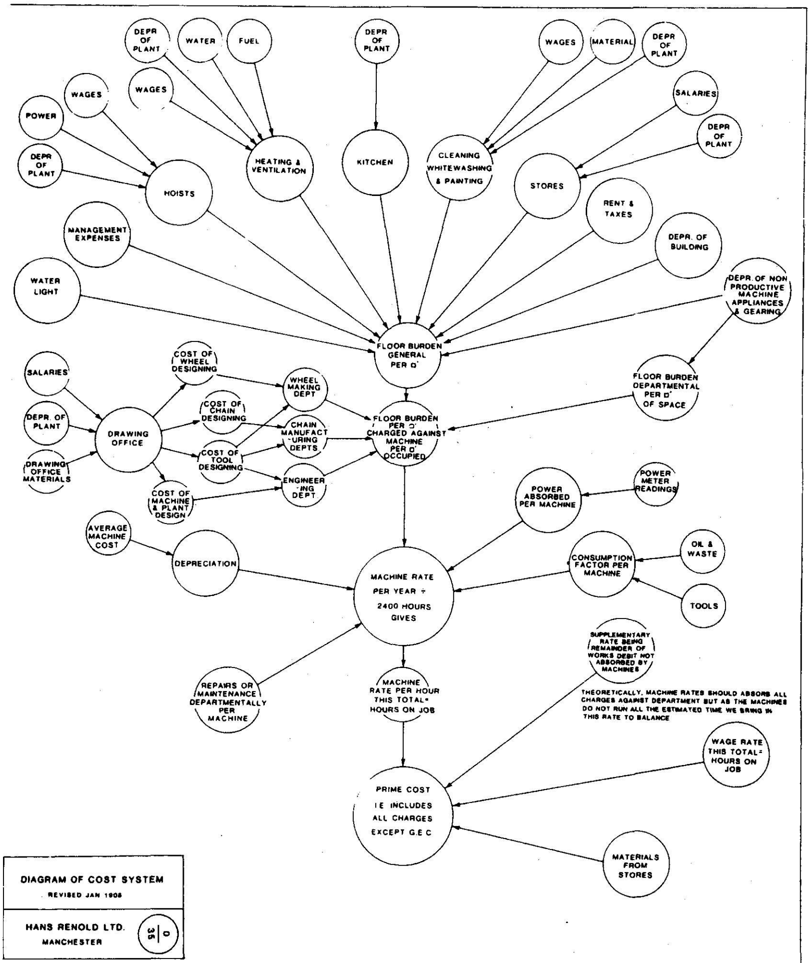
Only the first half of the diagram is shown in Figure 1, as the second half dealt with accounting for administrative and dis-

[1]The specifics of the Schwarzbach and Vangermeersch machine labor approach has been published in the two articles referenced at the end of this research note. Rather than showing and discussing this system again, I have concentrated on the historical backdrop of this system.

tribution charges under the heading of "G. E. C. — General Establishment Charges."[2] The figure has been redrafted as the original was worn. The key factor in the diagram was the determination of a machine rate per hour. The machine costs were included, in effect, as one of the four product costs instead of

FIGURE 1

Diagram of the Cost System



[2]Although Church was not included in the index for the archives of the Renold Chains Ltd. in England, there are many pieces of secondary evidence that Church was a major contributor to the diagram. The handwriting of the person who did the support work for the diagram was the same as noted in Hans Renold's personal diary.

being included in overhead. This decision is quite in line with the importance in Hans Renold Ltd. of developing special purpose machines for the purpose of the automatic assembly of chains [Tripp. 1955, p. 86]. These machines are quite similar to a robot. Undoubtedly, Renold's machines were the central feature of the company's management system. The diagram also placed great stress on the control and assignment of floor burden, which was assigned on a square footage (per Q^1) basis.

The machine rate per hour method of product costing was considered to be the greatest single step forward in costing technique [Urwick and Wolfe, 1984, p. 114]. Church developed this idea as a needed improvement to the practice of a general tack-on for overhead expenses to direct labor dollars, regardless of how many and what machines worked on a given job. He considered each machine, or group of coordinated machines, to be a production center [Church, 1908, pp. 27-45].[3] He then designed a form which collected the following costs for each machine or group of coordinated machines: (1) buildings factor, (2) power factor, (3) lighting factor, (4) heating factor, (5) stores transport factor, (6) supervision factor, (7) organization factor, (8) interest, depreciation & insurance, (9) repairs and maintenance, (10) oil and allowance, and (11) tool room charge [Church, 1910, p. 128].

My colleague, Henry Schwarzbach, and I have given many presentations of our version of accounting for robots by the machine labor cost factor to engineers, accountants, and managers for the Robotics Center of the University of Rhode Island and have always shown the diagram done by Church and Renold. We substitute the word "robot" for "machine" in the diagram and then present the diagram as the solution to the problem of accounting for the robotics world. Church and Renold's Diagram of Cost System always draws great attention for these reasons. It is as visually appealing a graphic as I have seen in cost accounting. It was done by engineers, Church and Renold, who were renowned in the history of management. It solved the

[3]Church's 1917 book, *Manufacturing Costs and Accounts,* gives his best writings on the machine hour rate method. His 1914 book, *The Science and Practice of Management,* contains his best writings on the machine as the focal point for a business. More information on Church is available in Vangermeersch's: (1) "The Wisdom of A. Hamilton Church," Working Paper No. 63 of the Academy of Accounting Historians, (2) *The Contributions of Alexander Hamilton Church to Accounting and Management,* by Garland Press, and (3) "Alexander Hamilton Church, 1866-1936: A Man of Ideas for all Seasons" in a Random House pamphlet on notable accountants.

problem that almost all engineers, accountants, and managers have with the facts of a ever-increasing overhead cost of an ever-decreasing direct labor cost, resulting in a greater and greater overhead charge per direct labor dollar or hour. It recognized the importance of the machine in accounting and in management. It was an illustration of engineering input and, perhaps, dominance in cost accounting at the time. It showed that the machine hour rate method was put into practice, even through the bookkeeping complexities caused the system to be modified in the first part of the 1910's [Renold, Sir Charles (Hans Renold's son), 1950, p. 113].

Unfortunately, Church and Renold never realized that they had broken with the traditional three product costs (raw material, direct labor, and manufacturing overhead) with the machine rate concept. They really adopted a four product cost approach with the fourth product cost being machine labor. Robots cannot be successfully treated in accounting as a part of overhead but must have their costs collected as a separate product cost. Engineers of companies considering robots simulate production costs on four product cost type of cost system. These engineers are hampered by the traditional three product cost system of accounting and accountants. Schwarzbach and I have spent much time getting engineers and accountants to have dialogues about robotics and accounting. For instance, I once again used the Church and Renold system during my presentation at the National Association of Accountant's Cost Accounting for the 90's: The Challenge of Technical Change seminar in Boston on April 28, 1986. The concepts of a "four product cost system," "the glob of overhead," and "machine labor" are all related to the pioneering work of Church and Renold [Vangermeersch, 1986, pp. 76-8]. Schwarzbach and I consider our efforts to shatter the traditional three product cost model to be a most important contribution to accounting practice and academics.

The flow of the product through the plant will also be matched by the cost accumulating at each robot utilized in the production route. There can be a much more exact modeling of costs of robots to match the actual flow than under the very general overhead charge of the traditional three product cost system. A tighter control of costs of robots will occur because these costs can be analyzed into fixed, semi fixed-semi variable, and variable costs per robot. The important savings in the use of floor space by employing robots is stressed in this system. The vastly improved data collection tools of today should diminish the bookkeeping problems that plagued Church and Renold's system. The robot can be programmed to do much of its accounting for itself.

SUMMARY

A study of accounting history can lead to ideas that solve current problems, as in this instance. It is very helpful for readers and listeners to know that there is historical back-up for a proposed solution. This is especially helpful when the two people involved are both as renowned as Church and Renold. Their diagram shows a care in drafting that seems to have been lost in accounting as engineers have ceased inputing into cost accounting. The concept of the machine rate also has been lost in the last 40 years. If there ever was a topic that needs a historical backdrop, it is robotics. Robots are not a new experience. Robotics is as old as the Industrial Revolution. Much is to be gained from studying the history of man's reaction to machines, in order to gain a back-drop for studying robotics. Church and Renold's diagram gives one such a reaction.

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ACCOUNTING FOR INFLATION: HENRY SWEENEY AND THE GERMAN GOLD-MARK MODEL

Abstract: In his book *Stabilized Accounting* of 1936, Henry Sweeney differentiated his indexation model for accounting for inflation from the French and German inflation-accounting models of the 1920s by describing the European methods as "usually quite content to stabilize the paper-money book figures on the basis of merely some gold money." Sweeney's composite characterization of the European thought, however, generalizes broadly and proves technically inexact when applied to the Germans. This study offers an account of the German gold-mark model of accounting for inflation as contained in the works of Walter Mahlberg and Eugen Schmalenbach.

INTRODUCTION

Henry W. Sweeney's *Stabilized Accounting* of 1936 contains the first book-length treatment of inflation accounting to appear in the United States. In that book, Sweeney recommends a price-level-adjustment model for accounting for inflation that adjusts for price-level change by means of a general index. The ideas in the book, however, did not originate with Sweeney. Rather, as Sweeney himself acknowledged [1964, p. xliv], they had their roots in inflation-accounting methods previously developed in Germany and France. Early in the 1920s Sweeney had chosen as a topic for a doctoral dissertation at Columbia University the overall valuation process, a process he found as currently practiced characterized by extreme conservatism. In attempting to infuse logic into contemporary valuation practices, however, he reports finding himself repeatedly frustrated by the effects of fluctuations in the value of the dollar. As a result, he turned to Germany. Hyperinflation had only recently ended in that country, and he hoped to discover a solution to the problem of accounting under conditions of a fluctuating currency in what had been done there. As he set about mastering the German thought, the French, too, began to publish a body of literature on the subject, and he determined to assimilate that material as well.[1]

Sweeney expressed his admiration for the work of the Europeans on a number of occasions and appears to have especially esteemed the Germans, two of whom — Fritz Schmidt and Walter Mahlberg — he had review *Stabilized Accounting* in early draft form [1964, p. xlv]. Yet Sweeney clearly regarded his own inflation-accounting model a considerable advance over those of both the Germans and the French and took pains to differentiate it from those of his European predecessors. "[T]he foreign method," he wrote in *Stabilized Accounting,*

> was usually quite content to stabilize the paper-money book figures on the basis of merely some gold money (usually the national gold money), despite the fact that the general purchasing power of gold money itself kept fluctuating [1964, pp. 38-39].

In addition, he noted that the Europeans had neither prepared price-level-adjusted income statements nor devised a thorough and systematic way of treating monetary gains and losses.

Sweeney's indictment of the Europeans on the latter two counts is not without justification. His composite characterization of the French and German methodologies as typically based on a gold currency, however, generalizes broadly and proves technically inexact when applied to the Germans. The various French writers did elaborate on a method of "gold-franc accounting," to be sure, according to which the stabilized unit of measure — the "gold franc" — was an expression of the exchange rate between the French paper franc and the American, gold-based dollar. None of the German writers Sweeney reports having read, on the other hand, including Walter Mahlberg, Eugen Schmalenbach, or Fritz Schmidt,[2] advocated restating inflated German marks on the basis of a gold currency. Fritz Schmidt, whose *Organic Balance Sheet in the Framework of the*

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[1]Sweeney recounts the events that led to *Stabilized Accounting* in an essay entitled "Forty Years After: Or Stabilized Accounting Revisited" that appeared in the 1964 reprint edition of the book [pp. xvii-xxxix].

[2]Schmalenbach (1873-1955) was Professor of Economics at the University of Cologne; Schmidt (1882-1950), Professor of Economics at the University of Frankfurt; and Mahlberg (1884-1935), Professor of Economics at the University of Freiburg. Sweeney mentions all three Germans in his 1927 and 1928 articles, in "Forty Years After," and in several footnotes in *Stablizied Accounting* [1964, pp. 39n, 47n, 170n, 174n, and 193n]. A quote from Schmalenbach also provides the epigram on the title page of the book. Schmidt's current value model was distinct from the gold-mark model and is not discussed in this study.

Economy [1921] contains the first comprehensive statement of current value accounting in the literature, favored a form of replacement cost accounting. Eugen Schmalenbach, founder of the dynamic school and originator of the dynamic balance sheet, proposed an indexation model that preceded Sweeney's by a full fourteen years, and Walter Mahlberg espoused not price-level adjustments per the value of a gold currency but per the market price of gold itself. And while an English-language account of the French gold-franc methodology has existed since 1931 [Wasserman] that would appear to corroborate Sweeney's characterization of the European work, Sweeney's reference to "the foreign method" remains many English-speaking accountants' only indication of what the nature of the German inflation-accounting thought of the period might have been.[3]

To be sure, the term "gold-mark accounting" circulated in Germany during the early 1920s much as the term "gold-franc accounting" circulated in France later in the decade. In Germany, however, the term came to signify in particular the restatement of the depreciated German mark to its pre-World-War, 1914 value (when paper marks were redeemable at a fixed rate in gold) by any of several means including indexation. In order to familiarize English-speaking accountants with the nature of the German gold-mark model — the model that apparently most inspired Sweeney — the present study offers an account of the gold-mark methodology as contained in the works of Walter Mahlberg and Eugen Schmalenbach, the two writers most responsible for the course of the model's development.

WALTER MAHLBERG AND PRICE-LEVEL ADJUSTMENTS PER THE PRICE OF GOLD

The Price of Gold as a Measure of Price-Level Change

The year 1921 was an historic one for inflation accounting. Not only did that year witness the first comprehensive statement of current value accounting in the literature, i.e., in Fritz Schmidt's *Organic Balance Sheet,* but it also saw the publication

[3]Sweeney did publish an article [1928] in which he identified Walter Mahlberg's gold-mark model as the German method "of the most practical promise to accountants in the United States" [p. 105]. Sweeney illustrated Mahlberg's treatment of the balance sheet accounts in the article, but the illustration expresses price-level changes in terms of percentages only and does not address the matter of a restatement device. Neither does the article mention Schmalenbach or indexation.

of the first systematic and compreshensive elaborations of price-level-adjustment accounting.[4] The first of these, Walter Mahlberg's *Balance Sheet Technique and Valuation During Periods of Currency Fluctuation,* marked the introduction of gold-mark accounting in Germany. The second, Eugen Schmalenbach's "Currency Stabilization in the Balance Sheet Approach to Income Determination," offered an early example of price-level adjustments on a non-gold-mark basis that, however, Schmalenbach soon modified to conform to gold-mark principles.

Mahlberg's *Balance Sheet Technique* underwent revision in 1922 and 1923 and expanded its definition of gold-mark accounting to accomodate a variety of measuring devices for price-level change including foreign currency exchange rates and indexation. In its originial, orthodox form, however, Mahlberg's gold-mark model called for the restatement of the mark on the basis of the premium contained in the current market price of gold, that is, as compared to the August 1914 price of gold. The various commodities valued by society, Mahlberg contended, enjoyed a fundamental value relationship to gold that endured over time. Thus, while phenomena such as variations in production and consumption, political upheaval, and the uneven progression of general price-level change might temporarily disturb a given good's value relationship to gold (giving rise to specific price-level change), the underlying value relationship necessarily reasserted itself once economic, political, or monetary stability returned. The price of gold, accordingly, represented the most reliable measure of value available, and the current premium on gold, the most sensitive measure of price-level change.

Because it was based on the current price of gold, Mahlberg's originial gold-mark model was never more than a programmatic one. Germany had abolished its gold standard in 1914 and no gold exchange existed in that country in the 1920s. Mahlberg, nevertheless, considered the organization of a national gold exchange requisite to bringing about an end to Germany's postwar inflation and included that measure in an inflation-abatement program he outlined in the first chapter of *Balance Sheet Technique*. The plan called for several steps including (1) a

[4]According to A. van Seventer [1975, p. 68], Theodore Limperg, the father of Dutch replacement value theory, conceptualized his ideas as early as 1917-1918. Much of Limperg's thought, however, remained in unpublished, lecture-note form until after his death in 1961. Perhaps the earliest call for price-level-adjusted accounts occurs in Livingston Mittleditch's article of 1918 entitled "Should Accounts Reflect the Changing Value of the Dollar?". The model contained in that article is not as comprehensive as those of the Germans.

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reduction of the total reparation payments required of Germany by the Treaty of Versailles, (2) a postponement and/or Allied financing of the reparation payments, (3) curtailment of the unrestrained printing of paper money, (4) increased productivity in Germany (to be effected by an end to the various social programs sponsored by the Weimar government as well as by an intensification of effort on the part of the labor force), and (5) the establishment of a national gold exchange whose daily quotations, expressed in terms of a premium, might serve as a basis for stabilized business transactions as well as for stabilized balance sheets.

Like many of his fellow countrymen, Mahlberg attributed the unrestrained printing of paper money to Germany's efforts to comply with the terms of the Treaty of Versailles; hence the first two steps of his program. The call for a national gold exchange, on the other hand, related to the course he believed inflation necessarily followed. People's understanding of inflation, he argued, passed through three phases. In the first, they looked to the goods side of the goods/quantity-of-money relationship and spoke of the high cost of commodities. In the second, they became aware that the change in prices was ongoing and that it somehow related to the quantity of money in circulation. At the same time, they also began to sense that, due to the uneven rate of price-level change, familiar price relationships were changing as well, some items becoming relatively cheaper and others relatively more expensive. A need arose, accordingly, to measure the rate of general price-level change as a point of comparison.

The third phase of inflation occurred only when a country clearly recognized the influence of the money side of the goods/quantity-of-money relationship and allowed the dynamics of that relationship to work themselves out naturally. This meant above all removing all traces of price controls and giving free rein to the economic forces involved. Second, it meant the organization of a national gold exchange. For once a gold exchange became well established and functioned smoothly, the price of gold became the apical expression of the play of forces that determined the price level in a country's economy. And as the most sensitive measure of price-level change in an economy, the price of gold was in a position to play a decisive role in the monetary stabilization process. The consummation of business transactions on the basis of "gold marks," namely, along with the preparation of gold-mark balance sheets, would eliminate the risks associated with price-level fluctuations, encourage business as usual, and discourage monetary speculation.

Mahlberg's Gold-Mark Technique

Mahlberg's gold-mark methodology itself involved a relatively straightforward price-level-adjustment technique. The German accounting system to which it applied, however, differs in several respects from the U. S. system of today and warrants some explanation. First of all, the German system of the 1910s and early 1920s centered on the balance sheet. Income was measured in a profit-and-loss account similar to an income summary, but that account was closed to the capital account with no formal income statement being prepared. Another difference pertains to the inventory account. For rather than establish separate purchases and sales accounts, the Germans posted purchases and sales directly to inventory. Ending inventory was then entered as a credit to the account so that the amount required to balance at period-end represented gross profit on sales. That amount was closed intact to profit-and-loss.

Also unlike the U. S. system, the German system closed the various real accounts to a formal balance sheet account at period-end (ending inventory was debited to the balance sheet account when credited to the inventory account) and reopened them at the beginning of the following period. Ending inventory, accordingly, became the beginning balance in the inventory account when the various balances closed to the balance sheet were returned to their individual ledger accounts. The profit-and-loss account, too, was closed to the balance sheet account so that any profit or loss appeared as the amount required to balance the account. The amount of profit or loss, however, was then combined with capital for a new capital balance and transferred to the capital account when the various real accounts were reopened.

In keeping with the balance sheet orientation of the German system, Mahlberg's restatement procedures applied exclusively to the real accounts and to the "mixed"[5] inventory account. None of the purely nominal accounts was affected. In carrying through his procedures, Mahlberg first restated the ending balance in each monetary account to its corresponding gold-mark value and carried that value to the balance sheet account. He then closed the difference between the restated ending balance and the nonrestated ending balance — the monetary gain or loss — to the profit-and-loss account. In similar fashion, he recorded the ending inventory in terms of gold and allowed the difference between the restated ending inventory and the nonrestated

[5]Mahlberg's terminology, 1923, p. 103n.

ending inventory, a difference he also termed as "monetary gain or loss," to increase or offset the nominal gross profit on sales. He then debited the net "gain" or "loss" on the account to the profit-and-loss account.

In regard to plant and equipment and other nonmonetary assets, Mahlberg determined their gold-mark value upon preparation of the initial gold-mark balance sheet or upon subsequent acquisition of the individual items and closed the difference between their nominal-mark and gold-mark values to the profit-and-loss account at that time. He then simply carried their restated values forward from period to period. Finally, Mahlberg restated transactions that directly affected the capital account as of the date of their occurrence and debited or credited the difference between their restated and nonrestated values to profit-and-loss as a "monetary gain or loss" in that period.

The "monetary gains and losses" Mahlberg recognized on the restatement of the various nonmonetary assets and the capital transactions, of course, are neither monetary in the sense that the term is understood today nor true gains and losses. Rather, they represent restatement differences that Mahlberg designated a loss if closed to the debit side of the profit-and-loss account (dr. profit-and-loss, cr. asset account [reduction to gold marks!]) and a gain if closed to the credit side of the account (dr. capital [reduction to gold marks!], cr. profit-and-loss). Mahlberg himself at one point made the following observation regarding this problem in terminology:

> With respect to plant assets, securities, and capital, it is not a matter of actual gains and losses . . . but of formal accounting "restatements" of values that . . . are known as a matter of principle to be unaffected by price-level changes [1923, p. 105].[6]

Mahlberg's methodology, then, commingled price-level-adjustment differences with operating gains and losses and with true monetary gains and losses in arriving at the final net gain or loss for the period. By closing price-level-adjustment differences to the profit-and-loss account, however, Mahlberg achieved more or less directly the same valuation of the capital account that Schmalenbach achieved by adjoining a monetary stabilization account to the capital account as explained below.

To illustrate Mahlberg's methodology, if the inventory account contains a beginning balance of M100 representing the cost in gold of 100 kg of a good and shows at the end of the ensuing

[6]All translations from the German in this study are the author's.

accounting period (1) the sale of the 100 kg for M200 (dr. accounts receivable, cr. inventory) and (2) the purchase of 20 kg of the same good for the M200 received (dr. inventory, cr. accounts payable) representing a price-level change of 1000%, the M200 ending balance would be restated to 20 marks "gold" (M200/ 1000% = M20) resulting in a "loss" of M80 as opposed to a paper-mark profit of M100 (sales of M200 less cost of goods sold of M100). The calculation of the M80 loss is shown in T-account form in Figure 1.

FIGURE 1

Gold-Mark Restatement of the Inventory Account

Inventory Account

Beginning balance, 100 kg	100	Sales (dr. accounts receivable)	200
Purchases (cr. accounts payable)	200	Ending balance restated, 20 kg (dr. balance sheet)	20
		Loss (dr. profit-and-loss)	80
	300		300

[Mahlberg, 1923, p. 103.]

Mahlberg also demonstrated a gold-mark method by which the nominal values in the accounts might be preserved if one were reluctant to alter the original paper data. According to this method, Mahlberg introduced restatement accounts that adjoined or offset the various nominal-value accounts and effectively restated them by the amount of any monetary gain or loss (real or quasi) that related to them. If the paper-mark data reflecting the activity in the inventory described above were left intact, for example, the M200 ending inventory would require a M180 valuation entry (dr. inventory restatement, cr. balance sheet) representing the reduction of its paper-mark value to gold (M200/1000% = M20; M200 − M20 = M180). In addition, the M100 paper profit closed to the profit-and-loss account would require an offsetting entry of M180 (dr. profit-and-loss, cr. inventory restatement) to reflect the 80 mark net "loss" Mahlberg would recognize on the account (the M100 gross profit less the M180 restatement difference). The use of a restatement account to achieve the gold-mark results of Figure 1 is shown in Figure 2.

FIGURE 2

Gold-Mark Restatement of the Inventory Account
Using an Inventory Restatement Account

Inventory Account

Beginning balance, 100 kg	100	Sales (dr. accounts receivable)	200
Purchases (cr. accounts payable)	200	Ending balance, 20 kg (dr. balance sheet)	200
Profit (cr. profit-and-loss)	100		
	400		400

Inventory Restatement Account

Cr. balance sheet	180	Dr. profit-and-loss	180

[Mahlberg, 1923, p. 108.]

Further, if during the following year the inventory account showed sales of M300 representing the turnover of the 20 kg of inventory and a purchase of 15 kg for the M300 received (representing an additional 1000% price-level change), while the direct restatement method would bring forward the prior year's ending balance in gold and restate the current year's ending balance directly, the restatement-account method again would leave the paper-mark data intact and only adjust the inventory restatement account. Thus, given the M5 "loss" on the inventory account shown in Figure 3, the inventory restatement account would require an adjustment of M105:

Ending inventory in paper marks	M300
Less ending inventory in gold marks (M300/2000% = M15)	15
Balance required in restatement account	285
Less balance brought forward	180
Required adjustment (dr. profit-and-loss, cr. inventory restatement)	M105

FIGURE 3

Restatement of the Inventory Account
with Gold-Mark Balance Carried Forward

Inventory Account

Beginning balance, 20 kg	20	Sales (dr. accounts receivables	300
Purchases (cr. accounts payable)	300	Ending balance restated, 15 kg (dr. balance sheet)	15
		Loss (dr. profit-and-loss	5
	320		320

[Mahlberg, 1923, p. 112.]

The M105 adjustment offsets the M100 gross profit on sales (sales of M300 less cost of goods sold of M200) in the profit-and-loss account to leave the M5 net loss, while the adjusted balance in the inventory restatement account effectively restates the ending inventory itself to its M15 gold-mark equivalent (M300 ending inventory less the M285 restatement balance). The inventory and inventory restatement accounts as they would appear after the adjustment are shown in Figure 4.

FIGURE 4

Restatement of the Inventory Account
by Adjusting the Inventory Restatement Account

Inventory Account

Beginning balance, 20 kg	200	Sales (dr. accounts receivable)	300
Purchases (cr. accounts payable)	300	Ending balance, 15 kg (dr. balance sheet)	300
Profit (cr. profit-and-loss	100		
	600		600

Inventory Restatement Account			
Cr. balance sheet	285	Beginning balance	180
		Dr. profit-and-loss	105
	285		285

[Mahlberg, 1923, p. 112.]

One problem with the basic gold-mark method that Mahlberg himself recognized lay in the fact that it distorted the gains and losses actually realized or incurred on the monetary accounts and on the inventory account. This was true, he explained, because the individual postings to those accounts were not restated on a current basis but summarized in paper at period-end and combined as paper with ending-balance gold marks. The distortions offset one another when the accounts were transferred to the balance sheet account, he contended, and resulted in a fairly accurate representation of enterprise capital. But on an account-by-account basis, results were skewed in one direction or the other depending on the direction of price-level change, making it difficult for the owner or manager of the business to identify particular problem areas.

One solution to this problem short of costly current restatement procedures was, as Mahlberg envisioned it, periodic approximation of current restatement percentages. If the value of a gold mark were 100% on 1 January, for example, and its average value for each quarter thereafter changed 250%, 500%, 750%, and 1000%, respectively, the restatement percentage for each quarter would be 100%/250% = 40%, 100%/500% = 20%, 100%/750% = 13.33%, and 100%/1000% = 10%, respectively. Using these percentages, the restatement of the inventory account that appears in Figure 5 would appear as in Figure 6. The difference proves to be a refinement in accuracy of 420 marks (M496 – M76 = M420).

FIGURE 5

Gold-Mark Restatement of Inventory Account
Showing Quarterly Activity

Inventory account

Beginning balance	100	Sales, 1. quarter	300
Purchases, 1. quarter	250	Sales, 2. quarter	600
Purchases, 2. quarter	500	Sales, 3. quarter	900
Purchases, 3. quarter	750	Sales, 4. quarter	1,200
Purchases, 4. quarter	1,000	Ending balance in gold marks (960/10), dr. balance sheet	96
Profit (cr. profit-and-loss)	496		
	3,096		3,096

[Mahlberg, 1923, p. 146 (adapted).]

FIGURE 6

Restatement of Inventory Account Using Quarterly Restatement Percentages to Approximate the Results of Current Restatement of Postings

Inventory Account

	Paper/ Gold	%	Gold	Gold	%	Paper/ Gold	
Beg. bal.	100	—	100	—	—	—	
1. qtr.	250	40	100	120	40	300	1. qtr.
2. qtr.	500	20	100	120	20	600	2. qtr.
3. qtr.	750	13⅓	100	120	13⅓	900	3. qtr.
4. qtr.	1,000	10	100	120	10	1,200	4. qtr.
				96	→	96	Ending bal. in gold (dr. bal. sheet)
Gross profit in gold (cr. profit-and-loss)	76	←	76				
Cr. monetary stabilization	420						
	3,096		576	576		3,096	

Note: Mahlberg closes the monetary stabilization account he establishes here for refinement purposes to the profit-and-loss account, making the total closed to profit-and-loss (M76 + M420 = M496) — and thus the valuation of the capital account — the same as in Figure 5.

[Mahlberg, 1923, p. 147.]

The great shortcoming of Mahlberg's orthodox gold-mark model, however, was the fact that no gold exchange existed in Germany on the basis of whose quotations paper marks might be restated. And while Mahlberg continued to call for the establishment of a national gold exchange in the revised editions of *Balance Sheet Technique,* others soon adapted his technique for use with an index.

EUGEN SCHMALENBACH AND GOLD-MARK ACCOUNTING VIA INDEXATION

Schmalenbach's 1921 Price-Level-Adjustment Model

Only shortly after Mahlberg's *Balance Sheet Technique* had made its appearance in 1921, Eugen Schmalenbach, the most prominent accounting theorist in Germany at the time and Mahlberg's former teacher at Cologne, published his "Currency Stabilization" article.[7] The model in that article called for price-level adjustments, too, but unlike Mahlberg, Schmalenbach did not initially champion any particular measuring device. Rather, he noted several possibilities including foreign currency exchange rates, the price of gold, and various indexes. He also noted that several possibilities existed as to technique. One could choose the value of the mark as of a given date in the past and restate subsequent values in terms of that value or one could restate all values in terms of the value of the mark at the end of the current period.

Schmalenbach opted for the latter technique in "Currency Stabilization." It was true, he noted, that restatement in terms of the value of the mark at the end of the period did not result in comparable figures for successive years without additional computations. On the other hand, the technique was "simple and clear" and, since it restated all values in terms of the prevailing value of money at the time of restatment, "facilitated understanding" [1921, p. 402].[8]

Perhaps because he did not advocate a particular measuring device in "Currency Stabilization," Schmalenbach, for purposes

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[7]The fact that *Balance Sheet Technique* appeared before "Currency Stabilization" is evidenced by a footnote acknowledgment of Mahlberg's book on the first page of the article [Schmalenbach, 1921, p. 104].

[8]Sweeney, whose price-level-adjustment model restated the dollar in terms of period-end values, echoed Schmalenbach's argument: "[C]omparative stabilized statements are usually more intelligible when expressed in the general price level of the later date. For that price level will always be closer in point of time to the actual general price level existing at the moment when the figures are compared" [p. 38].

of illustration, simply assumed a price-level increase of 250% during the course of one accounting period. He then multiplied the beginning balance in each account of a hypothetical manufacturing firm by the 250% and entered the difference between the restated and nonrestated values as a debit or credit to the account according to the account's nature as an asset or liability. At the same time, he carried an offsetting debit or credit to an account he termed a monetary stabilization account. This account adjoined the capital account and served to restate it indirectly by the amount of the summarized restatement differences.

In the case of nonmonetary assets, the full restated value (net of restated depreciation if a depreciable asset) was then closed to the balance sheet account in the closing process. In the case of monetary items, on the other hand, the nonrestated ending balance was closed to the balance sheet so that an additional entry in the amount of the restatement difference was required to completely close the account. That entry was made to the profit-and-loss account as a monetary gain or loss. Similarly, the ending balance in the inventory account was closed to the balance sheet account at its nominal value while the restatement difference that arose from restating the beginning balance offset the nominal gross profit on sales. Only the residual gross profit was carried to profit-and-loss. Schmalenbach's restatement of the inventory account as in "Currency Stabilization" is shown in Figure 7.

FIGURE 7

Price-Level Adjustment of the Inventory Account as in "Currency Stabilization"

Inventory Account

Jan. 1 cr. balance sheet	240,000	Dr. accounts receivable	1,500,000
Cr. accounts payable	880,000	Dr. cash	70,000
Cr. cash	505,000	Dr. accounts payable	10,000
Cr. accounts receivable	15,000	Dec. 31 dr. balance sheet	440,000
Dec. 31 Dr. price-level-adjustment account*	360,000		
Dec. 31 cr. profit-and-loss	20,000		
	2,020,000		2,020,000

*Assumed price-level change of 2.5:1:

M240,000	M600,000
× 2.5	− 240,000
M600,000	M360,000

Nominal credit to profit and loss would be M380,000.

[Schmalenbach, 1921, p. 405.)

The profit-and-loss account, too, was closed to the balance sheet account where it served to balance that account as the German system required. Since Schmalenbach's illustration involved a corporation rather than a single proprietorship, however, Schmalenbach did not close profit-and-loss to capital as Mahlberg had but carried the amount forward in the manner of retained earnings. The capital account itself remained at its nominal value, which, as Schmalenbach emphasized, was required in corporate balance sheets by German law.

Like Mahlberg, Schmalenbach also noted that the restated results in the individual accounts were no more than approximations since only beginning balances were restated. But, Schmalenbach argued, what was important — and this was in accord with the dynamic theory — was the impact of restatement on profit-and-loss rather than on the balance sheet and "[t]he transformation that a corrected profit-and-loss account evidences would not turn out very different if restatement were exact" [1921, pp. 403-404]. Besides, he added, "once people became accustomed to corrections for general price-level change, the restatement procedure could easily be refined" [1921, p. 411].

Schmalenbach and Gold-Mark Accounting

In 1922, within a year of "Currency Stabilization," Schmalenbach published a second writing on inflation accounting that more closely conformed to Mahlberg's methodology and that established a close relationship between gold-mark accounting and indexation for the remaining months of the inflation. Entitled *Gold-Mark Accounting,* the monograph represented the official position of a conference on balance sheet reform that took place in Frankfurt in November 1921. According to Schmalenbach's own account [1922, pp. 1-3], the conference was called within the private sector after hearings on the matter by the Reich Economic Advisory Council had come to a standstill in late 1920. The attendees, who included representatives from German industry, members of various German Chambers of Commerce, Reich officials, and various German academicians, heard Schmalenbach, Mahlberg, and Schmidt all speak in expert capacity and, on Schmalenbach's motion, named a committee to enunciate an official conference position. Chaired by Schmalenbach, the committee membership also included Mahlberg and Schmidt. It was Mahlberg, however, whose voice prevailed: the committee elected to endorse Mahlberg's method of restating accounting values in terms of their pre-war gold-mark value, albeit by the more practicable means of indexation. The task of drafting the committee's report fell ex officio to Schmalenbach, and so pleased was Mahlberg with the outcome of Schmalenbach's efforts that he incorporated the text of his proposed statute into the third edition of *Balance Sheet Technique* [1923, pp. 195-198].

The provisions of Schmalenbach's proposal included guidelines for the preparation of both an original gold-mark balance sheet and for successive year-end gold-mark balance sheets. With respect to an original gold-mark balance sheet, all nonmonetary values antedating 1 January 1918 were to remain at historical cost. Although not insignificant, Schmalenbach argued, war-time inflation proved immaterial when compared to that of the postwar years, and ignoring pre-1918 price-level changes greatly simplified matters. All post-1917 acquisitions, retirements, and depreciation relating to the nonmonetary accounts, on the other hand, were to be deflated to their corresponding 1 July 1914 values by dividing their nominal-mark amounts by the average index for the year of their occurrence (assuming a mid-1914 index value of 100). Any nonmonetary items acquired in the year of the original gold-mark balance sheet or revalued to their current value in that year were to be restated using either (1) the year-end index value or (2) the index value for the month of their acquisition or revaluation. Monetary items were to be restated using the year-end index value.

After restatement of the balance sheet was complete, if for any reason a debit were required to balance, single proprietorships were to reduce capital accordingly. Partnerships, too, were to reduce capital provided none of the partners objected. Should any partner object, the partnership was to establish a monetary stabilization account equal to the deficit. Corporations, who by law could not restate capital, were to close the debit to any existing reserves among the equity accounts first and establish a monetary stabilization account only if the reserves did not fully extinguish the deficit.

Acquisitions and retirements of nonmonetary items in succeeding years were to be restated using the year-end index value or the index value for the month of acquisition or retirement in a manner consistent with treatment in the original gold-mark balance sheet. Monetary items were to be restated using the index value on the balance sheet date, while depreciation was to be calculated only after restatement of the depreciable asset. At least one-twentieth of any gold-mark profit was to be applied annually to any balance in the monetary stabilization account until that balance was reduced to zero (dr. profit-and-loss, cr. monetary stabilization). With regard to daily business transactions during a year, restatement was to occur in summary form using the average index value for each month. Annual or monthly restatement was to be applied consistently from year to year and was to be in harmony with the method of restating acquisitions and retirements. Dividends were to be paid from gold-mark profits but reconverted to their paper equivalent before actural distribution.

Concerning the use of indexation for restatement purposes, while Schmalenbach duly noted the immediate feasibility of an index, he also argued in favor of indexation on theoretical grounds. Foreign currency exchange rates, he pointed out, were subject to the caprice of monetary speculation and thus tended to exhibit much sharper fluctuations than those of general price-level change. As a result, if several different companies with different fiscal year-ends were to employ the same foreign currency exchange rate for balance sheet restatement purposes during the same calendar year, differences among the companies might well be exaggerated if not distorted. And even if a gold exchange existed in Germany, the value of gold — Mahlberg's contention to the contrary — would not prove stable. Indeed, the value of gold had flucturated considerably in the decade before the war as new reserves were discovered in the Transvaal and new technologies were devised to extract those reserves. The war, in turn, had only served to intensify those fluctuations as many countries abolished their gold standards. Perhaps a return to the gold standard was in the offing and would bring about an end to inflation. The value of gold as a good in itself, however, would never cease to fluctuate, and thus its price would never serve price-level-adjusted accounting as well as an index. For an index represented the average price of a number of goods and "neutralize[d] the fluctuations of the individual goods without diminishing their collective effect" [1922, p. 38]. Indexation, accordingly, constituted the most stable measuring device as yet devised for price-level-adjustment purposes.

As to the most appropriate index for gold-mark accounting, Schmalenbach reported in his 1922 monograph that the general preference among his colleagues was for a wholesale index rather than for a consumer index, although he "[did] not share this opinion unqualifiedly" [p. 38]. He did not, however, choose to elaborate on his doubts in *Gold-Mark Accounting,*[9] but turned his attention immediately to a discussion of the two wholesale indexes that existed in Germany at the time. Of these two, one was prepared by the *Frankfurter Zeitung* and one by the Reich Bureau of Statistics. In its favor, he noted, the Frankfurt index

[9]Schmalenbach explained his equivocation here in *Dynamic Accounting.* A consumer index was theoretically preferable to a wholesale index for price-level-adjustment purposes, he explanined, because of its emphasis on consumer goods, the prices of which more accurately expressed the current price level than, for example, the prices of raw materials. The consumer indexes currently available in Germany, however, tended to restrict very narrowly the goods included. As a result, they were in fact not representative of the general price level [1925, p. 202]. Sweeney also found a consumer index theoretically preferable to other types of indexes since "accounting data should ideally be measured with reference to the progress made in obtaining either more consumption goods or greater power over them" [1964, p. 4]. Only because no consumer index prepared in the United States at the time was comprehensive enough for price-level-adjustment purposes did Sweeney, like Schmalenbach, settle for a surrogate, in Sweeney's case the general index.

(1) contained manufactured products as well as raw materials, (2) was calculated as of a particular monthly date, and (3) was published on a timely basis. The day of its calculation, however, was not month-end but the first Saturday of the month and its base year was not 1914 but 1920. In addition, it was a private index and thus not appropriate for statutory regulation. The Reich index, whose base year was 1913, on the other hand, based its calculations entirely on the prices of raw materials and did not appear in the general press. The ideal wholesale index, Schmalenbach maintained, would (1) include manufactured products, (2) be calculated as of the last day of the month, (3) specify 31 July 1914 as its base-year date, and (4) be a government-sponsored index that appeared regularly in the private press.

To illustrate the gold-mark methodology using an index, Schmalenbach, in *Gold-Mark Accounting,* approximated independently index values for the years 1918-1921 with 1914 as the base year and restated the accounts in a 31 December 1921 balance sheet. In that illustration, Schmalenbach summarized the company's daily inventory-account transactions for the entire year and restated them using the average index value for the year. Schmalenbach subsequently expanded and refined his illustration of gold-mark accounting via indexation for inclusion in the third edition of *Dynamic Accounting* [1925], where he restated a 31 December 1922 balance sheet using the Reich Bureau of Statistics index. Also in this illustration, Schmalenbach summarized the company's daily transactions on a monthly basis and restated them using the average index value for each month. The inventory account as restated in the more elaborate illustration is contained in Figure 8.

FIGURE 8

Price-Level Adjustment of the Inventory Account as in *Dynamic Accounting* (Restatement of 1922 Values to 1 January 1913 Using the Reich Wholesale Index)

Inventory Account (Nominal Values)

Jan. 1 cr. balance sheet	1,725,500		
Jan. cr. accounts payable, etc.	1,070,286	Jan. dr. accounts receivable, etc.	1,476,908
Feb.	1,205,260	Feb.	1,422,577
March	1,486,955	March	1,318,641
April	1,482,206	April	2,672,146
May	1,506,852	May	2,078,908
June	2,281,980	June	2,431,978
July	2,031,527	July	2,319,101
Aug.	4,046,286	Aug.	4,676,877
Sept.	7,891,242	Sept.	11,036,562
Oct.	16,851,536	Oct.	18,532,539
Nov.	34,286,015	Nov.	41,611,461
Dec.	38,980,208	Dec.	52,294,798
Dec. 31 cr. profit-and-loss	58,611,033	Dec. 31 dr. balance sheet	31,584,390
	173,456,886		173,456,886

Note: Both the beginning balance and the ending balance contain secret reserves in Schmalenbach's example, the beginning balance of 50% and the ending balance of 70%. Thus, the actual nominal values are M3,451,000 and M105,281,300, respectively. Schmalenbach eliminates the secret reserves for restatement purposes.

Reich Wholesale Index

	Monthly averages	Reciprocal Values × 100
Jan.	3,665	.02729
Feb.	4,103	.02437
March	5,433	.01841
April	6,355	.01574
May	6,458	.01548
June	7,030	.01422
July	10,059	.009941
Aug.	19,202	.005208
Sept.	28,698	.003485
Oct.	56,601	.001767
Nov.	115,100	.0008688
Dec.	147,500	.0006780

Monthly Summaries Restated

	Debits	Credits
Jan.	29,208	40,305
Feb.	29,372	34,668
March	27,374	24,276
April	23,330	42,061
May	23,326	32,181
June	32,450	34,583
July	20,195	23,054
Aug.	21,073	24,358
Sept.	27,501	38,462
Oct.	29,777	32,747
Nov.	29,788	36,152
Dec.	26,429	35,456
Totals	319,823	398,303

Beginning and Ending Balances Restated

Reich Wholesale Index, 1 October 1921: 2,263.5
Reciprocal Value × 100: .0441793
Beginning Balance Restated (M3, 450,000 × .0441793): M152,419

Reich Wholesale Index, 1 October 1922: 42,649.5
Reciprocal Value × 100: .00234469
Ending Balance Restated (M105,281,300 × .00234469): M246,852

Note: Schmalenbach derives his index for 1 October 1922 from the average indexes for September and October of that year as cited above (28,698 + 56,601 = 85,299; 85,299/2 = 42,649.5).

Inventory Account (Restated)

Jan. 1 cr. balance sheet	152,419		
1922 activity	319,823	1922 activity	398,303
Dec. 31 cr. profit-and-loss	172,913	Dec. 31 dr. balance sheet	246,852
	645,155		645,155

[Schmalenbach, 1925, pp. 214, 223-225, and 227.]

In addition to illustrating gold-mark accounting using the Reich Bureau of Statistics index in *Dynamic Accounting,* Schmalenbach also demonstrated in abbreviated form gold-mark accounting using a foreign currency exchange rate, specifically the guilder exchange rate. With respect to the latter illustration, Schmalenbach restated the 31 December 1922 mark on the basis of an index derived from the pre-war parity of the two currencies rather than on the basis of the guilder itself. Thus, what gold-mark accounting had come to signify was restatement of the German balance sheet, including the profit-and-loss account, to a pre-World War I price level rather than specifically on the basis of gold, or, as Sweeney would have it, on the basis of some gold money per se. Schmalenbach indicated as much himself in a discussion of the concept of a constant mark:

> When we restate a value expressed in money on the basis of a wholesale index, our stable, constant point is the [base-year] price level. . . . In the case of the wholesale index prepared by the Reich Bureau of Statistics [that point] is the price level of 1913. Hence we have the concept of the "gold mark of 1913" or the German "index mark." The expressions are synonomous. [Further, i]f one uses a foreign exchange rate rather than a wholesale index . . . , the custom in Germany is to do so on the basis of pre-war parity and not on the basis of the foreign currency unit itself. [1925, p. 209.].

CONCLUSION

In the second and third editions of *Balance Sheet Technique*, both of which appeared after the Frankfurt conference of 1921, Mahlberg acknowledged the amenability of his gold-mark method to use with either indexation or foreign currency exchange rates. Yet he never abandoned his position regarding the theoretical superiority of the premium on gold for balance sheet restatement purposes. The use of indexes and exchange rates, he contended, merely evidenced the second phase of inflation in which a nation groped for a serviceable measuring device as a point of comparison for changing value relationships.

The value of a currency, Mahlberg argued, was not something inherent in the currency itself but resulted from the dynamics of the goods/quantity-of-money relationship. Thus, during periods of inflation, as newly printed quantities of money continually redefined the relationship, the value of money was developing; and any measure, including indexes, that was not a market-based quotation, necessarily failed to reflect the value of a currency in flux. On the other hand, since the value of a currency in flux was developing and elusive, the foreign currency exchange operated as it were without reference point, the various foreign currency exchange rates vacillating about the actual but unknown value of the depreciating currency. Foreign exchange rates, too, then, failed to reflect the value of a fluctuating currency with any precision.

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THE EVOLUTION OF VOLUNTARY HEALTH AND WELFARE ORGANIZATION ACCOUNTING: 1910 - 1985

Abstract: This article chronicles and compares the attempts made over the years by Voluntary Health and Welfare Organizations (VHWO), accountants and accounting bodies to determine VHWO accounting principles. Also discussed are the events that led to the recognition of the need for generally accepted accounting principles for VHWOs. The article highlights the need for more attention to VHWO accounting by accountants and accounting researchers and provides a foundation for understanding VHWO accounting in the past.

INTRODUCTION

What are generally accepted accounting principles (GAAP) for Voluntary Health and Welfare Organizations (VHWOs)? This article examines how the concept has evolved over this century. Perhaps, however, the first question should be, what are VHWOs? As displayed in Figure 1, VHWO's constitute part of the nonbusiness universe.[1] According to the Financial Accounting Standards Board (FASB), the distinguishing characteristics of nonbusiness organizations include:

> (a) receipts of significant amounts of resources from resource providers who do not expect to receive either repayment or economic benefits proportionate to resources provided, (b) operating purposes that are primarily other than to provide goods or services at a

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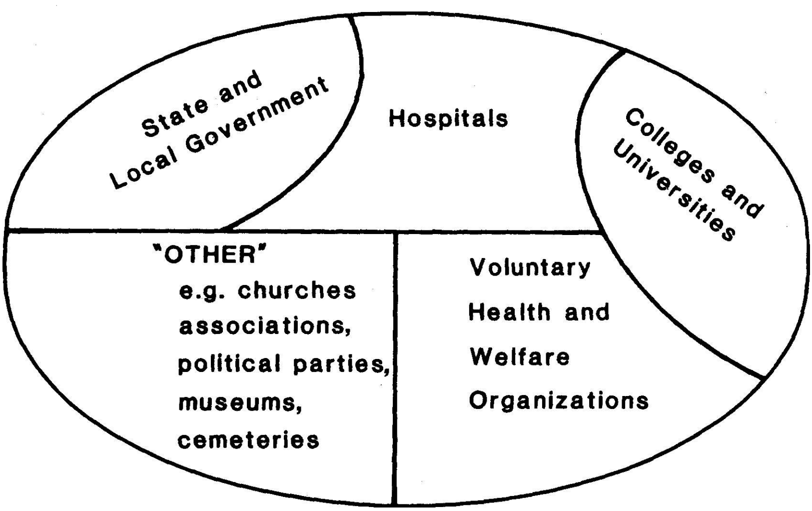
[1]Since VHWOs are one of the more inclusive nonbusiness organizations, much that has been written about nonbusiness accounting in general also applies to VHWOs. Thus to help the reader understand VHWO accounting, I found it necessary to discuss studies that applied to nonbusiness organizations in general as well as those applying specifically to VHWOs.

> profit or profit equivalent, and (c) absence of defined ownership interests that can be sold, transferred or redeemed or that convey entitlement to a share of a residual distribution of resources in the event of liquidation of the organization [FASB, 1980, p. i].

Nonbusiness organizations are the primary providers of social, health, education, and safety programs and services: all recognized as desirable by society but not furnished by the business sector. As such, they play a vital role in the society of the United States, at the same time offering people a chance to be involved in "worthy" projects. Within the nonbusiness universe, nongovernmental health and human service programs are primarily carried out by VHWOs; they are the means by which individuals contribute directly to social programs they consider most worth while. The American Institute of Certified Public Accountants (AICPA) has defined VHWOs as:

FIGURE 1

UNIVERSE OF NONBUSINESS[2] ORGANIZATIONS



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[2]The terms nonbusiness, nonprofit, and not-for-profit are often used interchangeably to refer to the same organizations. There appears to be a trend toward identifying the nonbusiness universe as above and reserving the term nonprofit for the nongovernmental nonbusiness entities.

> Organizations formed for the purpose of performing voluntary services for various segments of society. They are tax exempt (organized for the benefit of the public), supported by the public and operated on a "not-for-profit" basis. Most voluntary health and welfare organizations concentrate their efforts and expend their resources in an attempt to solve health and welfare problems in our society [AICPA, 1974, p. v.].

In addition to serving a needed social role in the United States, VHWOs play a major economic role, with almost 40 billion dollars in receipts in 1982. The Internal Revenue Service lists approximately 350,000 such organizations, and The Urban Institute estimates about 120,000 are active. If hospitals and universities are included, the charitable service nonprofit entities employed approximately 6.5 million people in 1982. " . . . the sector accounted for 5% of gross domestic product, employed five times as many people as the automobile industry and accounted for one of every five service workers in the United States" [Salamon, 1984, p. 17]. VHWOs are, for the most part, young — two out of every three organizations in existence in 1982 were formed since 1960.

Because of the role of VHWOs, both socially and economically, as well as the fact that they compete with business and other nonbusiness organizations for support, it is not surprising that people are interested in what the organizations have achieved and how they have used their resources. Thus it is important that resource providers have the accounting information necessary to make decisions about these organizations. As the number of VHWOs has increased, and the amount of available funding decreases, the pressure for accountability has stepped up. Accounting and reporting for VHWOs, as well as other nonbusiness organizations, has been characterized as complicated and "fuzzy" [Gambino and Reardon, 1981], due to the lack of well-defined GAAP, and therefore of limited use.

Listro [1976] had already presented evidence that GAAP for VHWOs is not well defined. During mid-1975, he conducted an opinion survey of CPAs and VHWO chief accountants concerned with both current usage and the principles and practices considered appropriate for nonprofit organizations. Some of the answers, summarized below, are enlightening.

Accounting Principles/Practices	(n = 156) Opinions of Certified Public Accountants: Whether Appropriate	Whether In Use	(n = 38) Opinions of VHWO Chief Accountants: Whether Appropriate	Whether In Use
Accrual accounting	86.5%	48.1%	55.5%	5.5%
Fixed asset capitalization	97.4	75.0	97.6	57.9
Fixed asset depreciation	75.6	18.6	97.4	77.8
Use of relevant pronouncements by FASB and predecessor organizations	97.3	45.5	86.5	39.5

The percentages for accrual accounting are particularly interesting. As will be seen in a later section, accrual accounting has been advocated by industry "authoritative" bodies since 1964. Still many accountants do not consider it appropriate, and many more do not believe it is being used. For most of the items there were major differences between what was believed to be appropriate versus perceived current practice. If practices are not carried out, can they be considered generally accepted?

As will be seen in later sections of this article, citizen committees and individuals have strongly recommended that a single set of accounting principles be developed for VHWOs. Some individuals and groups have attempted to develop accounting principles for these organizations, but nobody recognized as "authoritative" by the accounting profession has done so.

The AICPA Committee on Accounting Principles specifically excluded VHWOs and all other nonbusiness organizations from its Accounting Research Bulletins unless specifically mentioned, and none of them in fact dealt with nonbusiness organizations. The Accounting Principles Board (APB) of the AICPA did not specifically exclude all nonbusiness organizations, but its opinions concentrated on accounting and reporting for business entities. Non-business entities were specifically mentioned in only one of the thirty-one Opinions although six others were relevant to nonbusiness organizations.

The FASB position has been that any of its Statements that are relevant to nonbusiness organizations should be applied to them. But as Anthony points out, this has led to some problems:

> Some independent public accountants apply to non-business organizations professional pronouncements

that have been developed primarily for business enterprises, even in cases where the facts and circumstances are dissimilar [1978, p. 3].

Problems with VHWO accounting still exist demonstrated by repeated requests for improvements. This article lays a foundation for those interested in improving accounting and reporting for VHWOs by chronicling the major changes that have occurred during this century, as well as the influences of various individuals, organizations and other external forces on VHWO accounting. This information was gathered by studying the accounting history of several organizations, and by an extensive search of the literature relating to VHWO and nonbusiness organization accounting. Also, telephone interviews were conducted with accounting personnel of national VHWOs, and others interested in VHWO accounting.

The next sections illustrate how accounting for VHWOs has evolved over the years and what forces were instrumental in initiating change.

THE EARLY YEARS

In the early years of this century there was little attempt to standardize accounting for VHWOs or other entities in the United States. One accounting educator, William Morse Cole at Harvard, was concerned about the lack of comparability within any type of similar nonprofit institutions. In *Cost Accounting for Institutions*, published in 1913, Cole stated that comparisons of accounts when the method of accounting was different were worse than useless. He advocated that all institutions of a given type charge exactly the same classes of item to each account so comparisons could be made. "Only with uniformity, however, can one ever compare significant notes with one's neighbor and profit by the other's experiments" [p. 15]. *Cost Accounting* mainly uses hospitals for illustrations but it was intended for, and could have been used by, VHWO institutions as well.

Cost Accounting was primarily intended to structure the accounting system for internal decision making. Most of the book was concerned with gathering the information needed to adjust prices to service rendered, determine if utmost economy prevailed, and decide whether some tasks should be contracted out. Cole did advocate some accounting principles that applied to external reporting. These included the preparation of a balance sheet to show accountability for the assets entrusted to the institution, recorded at cost adjusted for depreciation. Cole's balance sheet was classified with long-term assets preceding current assets and capital accounts before long-term liabilities. "Retained Earnings" was designated as Surplus or Deficit and listed as the last item of the Liabilities or Assets as appropriate. He cautioned,showever, that this information should not be published if it would lead to pressure to tax the institution or to decrease contributions if the institution were perceived to be wealthy.

Cole believed that proper comparisons could only be made when accrual accounting was used and interest, depreciation, and other charges due to capital investment were shown. He defined depreciation as the excess of the "estimated normal wear and tear" over repairs made and this was the amount used to decrease the asset account. If repairs were greater than "estimated normal wear and tear," however, the asset account was increased by the difference. Fund accounting was proposed for greater accountability. The balance sheet disclosed the fund balances for various restricted and unrestricted funds with the changes in fund balances disclosed in supplementary schedules.

The income statement was a series of four schedules. The first showed whether or not the earnings from services were adequate to pay the expenses of providing those services. The second started with the surplus or deficit from operations and added the income from endowment. The next schedule started with "endowment income" and added contributions. Contributions were considered fairly steady and part of what Cole called "normal current income." The last schedule started with "normal current income" and added current and capital legacies, two transitory and unreliable elements, to show the final result for the year.

Cole presented a very comprehensive system of cost accounting for institutions. However, there were still concerns as evidenced by Ellen Potter's [1924] call for improved accounting when she was Pennsylvania's Secretary of Welfare:

> Improved business methods in private and public undertakings, combined with a sound social policy, will not only diminish unit costs of operating these institutions, but will tend to maintain self-dependence and self-respect of those who may from time to time be in need of financial assistance . . . To promote the development of sound business policies a uniform system of cost accounting is necessary in all public and private charitable undertakings [Potter, 1924, p. 146].

Also, Charles Mather, CPA [1929] expressed concern that the public did not really know what was being done with their contributions to charitable organizations. He advocated that such organizations present an audited statement of income and expenditures to the contributors at least annually. The statement would be on the cash basis and disclose that no undue proportion of the funds was spent on fund raising and general administration.

Several organizations voluntarily developed their own accounting systems to report to contributors. One such organization was Near East Relief. Its system, developed in the mid-1920's, accrued receivables and payables but did not capitalize property and equipment unless there was an offsetting reserve. Budgets were used as a control device, and expenditures were reported by function so that fund raising and administrative expenses could be separated from program expenses [Caffyn, 1928]. Morey, CPA, developed an accounting system for the Chicago YMCA in the late 1920's. That system relied heavily on budgetary control. It also capitalized property and equipment and recommended charging depreciation. "Funding" of depreciation charges, so there would be money available for replacement, was implied [Morey, 1929].

Some national VHWOs also developed accounting standards for their affiliated groups, and the national YMCA was one of the first. In 1916 a YMCA Business Administration Commission stressed the importance of developing better business methods for YMCAs. The first accounting guide was published in 1919. It was followed by more accounting guides and manuals in 1925, 1928, 1945, 1950 and 1954 [YMCA, 1954].

> In financial reporting the YMCA in its early days followed the tradition of business . . . [then it] began to develop accounting methods and reports adapted to its own needs [YMCA, 1950, p. 77].

However, local associations still used methods more appropriate to profit motivated business than a YMCA where finances were only a tool for accomplishing purposes. The 1950 manual was intended to guide the development of record keeping that accurately reflected what was being done, and reporting that consistently revealed directions since "careful and convincing accounting for what is done with the money received by the Association is expected everywhere today . . . " [YMCA, 1950, p. 11]. The accounting provisions of the 1950 YMCA manual are summarized in Appendix 1.

THE MIDDLE YEARS

VHWO accounting was the target of a burst of activity starting in the 1950's. About this time regulatory and funding agencies became concerned with comparability of VHWOs' financial statements. Also, the accounting profession became interested in defining GAAP for all non-profit organizations. This was a result of the issuance of Statement on Auditing Procedures #23 which required the auditor to state clearly what type opinion he was giving and whether or not the statments were in conformity with GAAP [Blough, 1951]. This requirement posed a significant dilemma because of the lack of authoritative sources of GAAP for the non-business sector. For businesses, it was widely agreed that the Accounting Research Bulletins (ARB) constituted GAAP. Nonprofit organizations, however, were not covered by the ARBs. Did the auditor have to give a disclaimer of opinion for nonprofit organizations because they did not follow business GAAP and often reported on the cash basis? Several writers opined that there were sources of GAAP other than ARBs. Hill [1953], a partner in Haskins & Sells and Chairman of the Committee on Auditing Procedures, expressed the view that the nonprofit auditor could give an opinion that cash basis statements fairly presented and, in some cases, were in accordance with GAAP. He believed, however, that the standard short form opinion should not be used in such cases because cash basis statements could not purport to show financial condition and results of operations. Sprague [1956], a partner in Arthur Andersen, believed that the auditor should be able to report on nonprofit organizations even if they did not follow business GAAP as long as they followed procedures recommended by an authoritative accounting group, or accounting procedures generally followed in their particular field. He also wanted the standard short form amended so that the terms "financial position" and "results of operations" were avoided. Morey [1958] believed that the auditor had to use judgement as to what was GAAP. Queenan [1957], a partner in Haskins & Sells, went even further. He said that if nonprofit cash basis accounting had the sanction of an authoritative body, there was no reason to vary from the standard short form. The terms "financial position" and "results of operations" could be used and there was no need to specify the source of GAAP.

The October 1957 Statement on Auditing Procedure #28 settled some of the controversy. With respect to nonprofit organizations it said:

> If the statements are those of a nonprofit organization they may reflect accounting practices differing in some respects from those followed by business enterprises

> organized for profit. It is recognized that in many cases generally accepted accounting principles applicable to nonprofit organizations have not been as clearly defined as those applicable to business enterprises organized for profit. In those areas where the auditor believes generally accepted accounting principles have been clearly defined (as indicated by authoritative literature and accepted practice, etc.) he may state his opinion as to the conformity of the financial statements either with generally accepted accounting principles, or (alternatively, but less desirably) with accounting practices for nonprofit organzations in the particular field (e.g., hospitals, educational institutions, etc.), and in such circumstances he may refer to financial position and results of operations; in either event, it is assumed that the auditor is satisfied that the application of such accounting principles and practices results in a fair presentation of financial position and results of operations or that he will state his exceptions thereto. In those areas where the auditor believes generally accepted accounting principles have not been clearly defined, the other provisions of this statement apply [AICPA, 1957, par. 11].

Attention subsequently focused on defining GAAP for nonprofit organziations determine what authoritative bodies existed. Morey [1958], Robert Dickens [1958],and Thomas Holton [1959], a partner in Peat, Marwick, Mitchell, all believed that GAAP for municipalities, hospitals, and colleges and universities had been defined, but no mention was made of VHWOs. At about the same time that the accounting profession was awakening to the accounting problems of nonprofit organizations in general, contributors and other resource providers, as well as regulators, were showing increased concern about charitable organizations (VHWOs) in particular. In *Attitudes Toward Giving,* Andrews [1953] voiced the sentiments of many contributors when he asked for better reports of what was done by an organization and how the contributions were spent.

In the early 1950's the Los Angeles Board of Social Service Commissioners became concerned about the lack of uniformity in accounting principles followed by the VHWOs reporting to it, believing that this hindered the Board's ability to make rational allocations between the organizations seeking its funds. The Board commissioned the California Society of Certified Public Accountants to prepare accounting principles for those organizations. The perceived benefits of such principles were:

1. More accurate and informative statements of the use made of contribution income will be available to the public,
2. Financial statements of various similar organizations will be more comparable than at present,
3. Social Service organizations will be aided in reporting to government agencies, and
4. The record of social service organizations will reflect and report financial transactions in conformity with generally accepted accounting principles [City of Los Angeles, 1955, p. 16].

The accounting principles recommended by the Board are summarized in Appendix 1.

In 1954 the State of New York passed a law that required charitable organizations (VHWOs) soliciting funds in New York to file annual financial reports which were to be made available to the public. The report was to "clearly set forth the gross income, expenses and net amount incurring to the benefit of the charitable organization" [Wasser, 1956, p. 709], verified by an independent public accountant, so that readers could form reliable accounting judgements with respect to the particular charitable organization. The report form was simple and, unfortunately, sacrificed some accounting principles appropriate to nonprofit organizations. (See Appendix 1 for a summary.) During the next seven years, the New York report form was amended three times. By 1961, contribution revenue was still to be reported on the cash basis but other sources of revenue could be reported on the accrual basis if accrual accounting records were maintained. Expenses could be accrued and were to be reported on a functional basis showing administration, fund raising and program costs. Joint costs were to be considered primarily fund-raising. Although fixed assets were to be treated as an expense of the year in which acquired, they could be capitalized for record keeping purposes. However, depreciation was not to be recorded because this would involve a duplication of charges for the same outlay. Only one fund was to be used, with footnote disclosure of any restrictions [Perlman, 1961].

In response to resource provider and regulatory agency concern about VHWO accounting, some of the national VHWOs wrote or revised accounting manuals for their affiliates in the mid-1950s. These included the YMCA which prepared a revision of its accounting guide in 1954; the American Red Cross which published "Suggested Method for Keeping Chapter Financial Records" in 1956; and the Community Chests and United Funds which in 1956 revised their manual originally published in 1944.

Although the Community Chest manual was primarily a "how-to" bookkeeping guide, some information on accounting principles was given. Community Chests were advised to produce simple and understandable financial statements, the purpose of which was to:

1. Supply information which will aid the board of directors, the budget committee and the staff in understanding, controlling, and carrying out the broad objectives of a program which carries with it the responsibility for sound operation and accountability to the contributing public and to the member agencies, and
2. Supply the factual material which can be interpreted to the public as a part of the public relations program [United Community Funds, 1956, p. 18].

In 1957 the New York Community Trust, a group representing resource providers, commissioned Louis Englander, CPA ". . .to determine whether a system of financial recording and reporting could be designed for all philanthropic institutions" [Englander, 1957, p. 2]. To determine current accounting practices, he studied reports of 100 VHWOs and sent a questionnaire to 25 national VHWOs. Some of his major findings were:

1. Fund accounting was used with a general fund and one or more other funds,
2. Contributions were accounted for on the cash basis but other revenues, such as allocations from United Funds, were accrued,
3. Buildings were capitalized and depreciated, or capitalized and not depreciated, or expensed upon acquisition,
4. Equipment was either expensed upon acquisition or capitalized,
5. Income was reported as restricted or unrestricted,
6. Expenses were classified by function and allocations of expenses between functions were made,
7. Financial statements generally consisted of a balance sheet and operating statement but the format of the statements varied greatly.

Englander then recommended the following accounting principles for philanthropic institutions:

A. Conventions:
   1. Provision of a social service, not earning a profit, is the nonprofit purpose.
   2. Dual entity concept; i.e., restricted/unrestricted resources.

3. Annual accounting period.
4. Responsibility for adherence to a budget.
5. Stewardship of unrestricted resources and trusteeship of restricted resources is the accounting goal.

B. Standards of recording:
1. Recordkeeping on the fund accounting basis.
2. Matching of revenue and expenditures
   * only for earned income
   * relate the contribution to all expenditures made in the same period
   * use cash, accrual or modified accrual basis.
3. Expense proration principle
   * expenses should not be prorated by accounting periods (e.g., no depreciation) unless related to income earned from sales or services, or if necessary for comparability.
4. Expenses should be classified by function with allocations as necessary.

C. Doctrines of reporting:
   * full disclosure.
   * budget/actual comparison presented.
   * bases of expense allocations between functions included in the report.
   * consistency.
   * conservatism.

Englander felt that the next steps should have been to test these principles for general acceptance, standardize terminology and revise expense category classifications. However, no formal follow-up was made. (See Appendix 1 for a summary of Englander's recommendations.)

Citizen concern about VHWOs and whether they were meeting the needs of the poor resulted in the formation in 1958 of an Ad Hoc Citizen Committee funded by the Rockefeller Foundation. The committee and its purpose were described as ". . . a group of private citizens, recognizing the important role of voluntary health and welfare agencies in the United States undertook to reassess the functioning of the agencies in fulfilling their great responsibility" [Hamlin, 1961, p. i]. After working for two years they reached many conclusions, including the following:

> It is the firm belief of the committee that every agency supported by contributions from the public is under an obligation of public accountability. It owes the public a full and frank disclosure of its programs and their financing. No agency should claim to be in exclusive

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> possession of a patented method of social salvation.
>
> The obligation of full disclosure and accountability leads to a second recommendation of this committee, namely, that a system of uniform accounting be developed by the American Institute of Certified Public Accountants. This would greatly facilitate the work of budget reviewing bodies, potential contributors and voluntary agencies themselves [Hamlin, p. iv].

The AICPA agreed to undertake the task and planned to form an advisory board of informed citizens as well as gather detailed information on current accounting and reporting in order to determine types of agencies significant to the study, captions in reports, and usual reporting procedures and problems. A News Feature in the *Journal of Accountancy* in September 1961 summed up the feelings of many at the time with:

> A system of uniform accounting and financial reporting is potentially the most important method for obtaining more objective information about voluntary agencies. It has been discussed for years, but has not been developed because of the difficulty of the task and the fears of voluntary agencies [p. 26].

Individual accountants were also voicing the need for better accounting principles for all types of nonprofit organizations including VHWOs. Williams, a partner in Price Waterhouse, and Leonard [1962] felt that, while better financial reporting in the nonprofit field would bring direct benefits to virtually every citizen of the United States, those organizations were not well serviced by CPAs. There was an admitted need for preparation and availability of intelligent and intelligible reports to tell what had been done with contributors' money. They believed that the accounting profession needed to provide responsible leadership in the formulation of appropriate objectives for nonprofit accounting. Fluckiger [1963], a manager with Peat, Marwick, Mitchell, also called for the accounting profession to take action to develop standard terminology for all types of nonprofit organizations.

The various states could have set accounting standards for VHWOs because of their power to regulate charitable organizations. However, for the most part there was minimal state regulation, primarily because of a shortage of adequately trained personnel, although the states of New York and Minnesota did take an active regulatory role. The general hope was that when GAAP was enunciated by a professional authoritative body, standards and reporting forms would be developed that would be adopted by all states [Sage, 1965].

Although the AICPA accepted the task of determining principles for VHWOs, several groups and individuals were able to act more quickly to attempt to fill the gap. Overhiser [1962], chairman of the New York Society of CPA's Committee on Accounting for Nonprofit Organizations, attempted to start the process of codifying the underlying hypotheses from which accounting principles could be derived for nonprofit entities in general. He said that many of the basic postulates of accounting that had been developed for profit entities could be applied to nonprofit organizations, but that nonprofit organizations had some peculiarities. First, the objectives and purposes of nonprofit organizations were to benefit individuals with no vested interest, and therefore the financial activities were directed toward administering and expending resources in attaining social objectives. Second, results of operations must be expressed in terms of attainment of objectives, implying that while sound financial administration was considered to be of vital importance, financial statements may not be the most essential element of reports. Overhiser's proposed principles are summarized in Appendix 1.

The National Health Council (NHC) and the National Social Welfare Assembly (NSWA), authoritative bodies for their 54 member agencies, acted before the AICPA and published *Standards of Accounting and Financial Reporting for Voluntary Health and Welfare Organization (Standards)* in 1964. *Standards* put forth rules governing content and quality of financial reports, but not the fundamental rationale underlying them. These rules contained in *Standards* are summarized in Appendix 1.

Standards was considered a major step forward since it was designed to bring uniformity and comparability to public financial reports of at least the 54 major philanthropies (VHWOs) belonging to the two sponsoring groups [Charity, 1965]. Manser [1966], Associate Director of NSWA, stated that *Standards* was a "major milestone in the stimulation of efficient administration and fiscal integrity for voluntary organizations which look to the public for their support". He also believed that agencies were finding that *Standards* "makes good sense because management control is thereby strengthened, budgeting is facilitated, agency finances are more closely related to agency services, and most important, good faith is kept with the contributor". It was hoped that *Standards* would become the necessary and sufficient condition for financial support.

The State of New York adopted *Standards* for the charities it regulated [Steinwurtzel, 1969], and it was also adopted by several national VHWOs. For instance, United Community Funds and Councils of America urged that its affiliates adopt *Standards:*

* to inspire public confidence,
* to provide the basis of effective business administration, and
* to discharge basic responsibilities to contributors, to agencies, to board of directors and to staff [United Community Funds, 1967, p. 1].

Standards was adopted by United Community Funds in part because:

> . . . in the past, with each agency recording and reporting in a different manner, contributors and purchasers of services found their financial reports incomplete and misleading. They did not show, for example, from what sources the agency obtains its income, how much is spent on supporting services, such as administration costs and campaign costs, if any. Furthermore, this information was not presented in a uniform and understandable manner [Farley, 1973, p. 30].

Shortly after the publication of *Standards,* Henke published the results of an APB sponsored study intended to analyze and evaluate accounting and reporting practices followed in the nonprofit[3] area in the light of the environment within which the financial data were used. Henke [1965] stated that nonprofit substandard reporting had led to inferences of inefficient operations; lack of objectivity and fairness; incoherent, improperly organized and not articulated reporting; lack of uniformity in organization and presentation; and little way of really measuring operating efficiency. The accounting principles which Henke felt would help correct the substandard reporting are summarized in Table 1. Henke [1966] also authored the first text that had a chapter dealing with VHWOs.

In 1967 the AICPA published *Audits of Voluntary Health & Welfare Organizations (Audit Guide)* applicable to VHWOs. The *Audit Guide* was not intended to establish accounting principles, since accounting for VHWOs was considered to be unsettled and in a state of evolution, but rather to discuss the practices that were currently being followed. Although it acknowledged *Standards* as reducing the variety of reporting practices, the *Audit Guide* did not endorse it or disagree with it. The accounting

[3]VHWO accounting & reporting practices were specifically studied and discussed in the report.

practices that the *Audit Guide* discussed are summarized in and compared to the other attempts at accounting rules in Appendix 1.

THE LATER YEARS

Standards and the *Audit Guide* did not resolve all the controversies. Many groups including NHC, NASW and AICPA continued to study VHWO accounting and make suggestions. The need for continued efforts is evident from the nature of the controversies still unresolved. A major continuing problem was how to record fixed assets and whether to record depreciation. Early writers on the subject indicated that depreciation would be appropriate only if the rates charged for services were based on costs [Baldassare, 1959] or claimed that depreciation would only cloud the simple picture of receiving and spending money with the amortization of past expenditures [Baldwin, 1963]. As late as 1967 Withey, wrote that depreciation was an allocation of cost and that charging it to current operations would not be useful. The general feeling seemed to be that depreciation was only appropriate for entities which expected to replace their assets through operating revenues. Piersall put forward a different view of depreciation by calling attention to the fact that depreciation should not be confused with a method of obtaining funds for replacement. He went on to say:

> Although the fixed assets of nonprofit organizations may not generate revenues, they do generate accomplishments. Depreciation is one of the measures of the efforts required to produce these accomplishments. For comparability we must have depreciation on donated as well as purchased assets [Piersall, 1971, p. 59].
>
> Completeness of the measure of cost is essential to management's effort to control costs and society's need for guides by which to allocate scarce resources [Piersall, 1971, p. 60].

Although there had been a perceptible change in the views of accountants about the desirability of recording depreciation over the years, Gross [1972/73] has highlighted the continuing variations in the handling of fixed assets and depreciation.

More evidence that *Standards* and *Audit Guide* had not solved all the problems came from the report of the Committee on Accounting for Not-for-Profit Organizations of the American Accounting Association in 1971. The Committee reported that, although various agencies or associations of different types of

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not-for-profit organizations had independently set forth guidelines for their own organizations, not-for-profit organizations' financial reports lacked relevance and freedom from bias and did not provide information for:

* Making decisions about the use of limited resources,
* Effectively directing and controlling the organizations,
* Maintaining and reporting on custodianship of resources, and
* Facilitating social functions and controls.

The committee recommended that:

1. Similarities with profit organizations need to be emphasized, not minimized,
2. Both types of organizations:
   a. are part of the same economic system,
   b. compete for the same resources,
   c. should utilize analytical techniques to ensure the use of resources for the best of society,
   d. require information systems for operational accountability as well as dollar accountability,
3. Data must produce information for evaluation and decision-making over and above fund and budget control, and
4. Report on operational accountability of organization as a whole not just for sub-entities [American Accounting Association, 1971, p. 86].

The specific accounting principles recommended by the Committee were: use of accrual accounting; capitalization and depreciation of fixed assets; preparation of consolidated statements, not just fund statements and that budgets not be concentrated on to the extent of ignoring the functions, activities, and programs of the organization.

In the fall of 1973 a Commission on Private Philanthropy and Public Needs was formed and it appointed an Advisory Committee to examine accounting for private philanthropic organizations [Gross, 1975c]. It found that current reports of philanthropic organizations (VHWOs) were difficult to understand because of the use of funds, the difficulty of quantifying the effectiveness of philanthropic organizations, and the lack of a single set of principles. A single set of principles, it was posited, would facilitate comparisons, make it easier for nonaccountants to understand the statements, make the accounting more objective, allow flexibility but maintain reporting of similar transaction similarly, and be based on uniform underlying concepts

[Accounting Advisory Committee, 1974].

The Advisory Committee made two recommendations:

1. That uniform accounting principles be adopted for all.
2. That regulatory bodies adopt a standard reporting format.

The sixteen accounting principles recommended are summarized in Appendix 1.

The report of the Advisory Committee was intended as a discussion document to focus attention, and it was successful in generating discussion, but not all of it was positive. Most people agreed with the principles in theory until they saw the practical effect on their particular organization [Gross, 1975b]. For example, Robinson [1976], a member of the AICPA Task Force on Nonprofit Organizations, commented that the report was receiving widespread attention but that it was not authoritative. He felt that the committee raised false hopes by their efforts which were doomed to failure. One major criticism Robinson voiced was that the report dealt only with private organizations. This meant private and public entities which provided the same services would have different accounting and reporting.

The AICPA published a revised *Audit Guide for VHWOs* in 1974 which was intended to describe GAAP applicable to VHWOs. It was considered by its authors to be fairly compatible with *Standards,* then in the process of being revised. Appendix 1 summarizes GAAP as described by 74 Audit Guide and compares it to previous attempts at defining GAAP.

The Audit Guide was hailed as a major step designed to eliminiate a credibility gap and to improve allocation of resources to those that need it. It was felt that past permissiveness allowed concealment of part of the assets, that the changes in 74 Audit Guide would result in full disclosure, and that it represented the best thinking of the accounting profession [Gross, 1973].

The National Health Council, National Assembly of Social Workers and United Way of America published a revised version of *Standards of Accounting and Financial Reporting* in 1975 which was intended to be compatible with 74 Audit Guide. Organizations had invested time and money in implementing *Standards,* and significant progress towards responsible accounting and financial reporting had been made, but the experience with *Standards* indicated that there needed to be a revision to reflect the changes in a dynamic field. The 75 Standards was a joint effort by the authors and the AICPA to provide detailed standards for organizations to follow in preparing financial information for reporting to the general public based on 74 Audit Guide. United Way of America recognized 74 Audit Guide and 75 Standards as the basic authorities "for all not-for-profit human service organizations except for hospitals and institutions of higher learning" [1974, p. ix] and based its accounting manual on those two publications.

The only major area where there appears to be a conflict between 74 Audit Guide and 75 Standards is in allocating the expenses of multi-purpose material, particularly between fund-raising and programs. The NHC and other national VHWO groups have started working on another revision of the *Standards*. It is too early to tell all the issues the revised *Standards* will deal with, but one major area that will be included is the problem of allocating joint costs. This topic is also addressed by the AICPA Not-for-Profit Organizations Committee [AICPA, 1986].

The next major event for nonprofit accounting came in 1977 when the FASB commissioned a research report by Anthony on accounting for all types of nonbusiness organizations. (The FASB has adopted the term nonbusiness organizations instead of the term nonprofit organizations.) Anthony's 1978 report focused on users of financial reports and their information needs. His report was not intended to answer questions, but rather to raise the questions that needed to be answered. At about the time Anthony submitted his report (May 1978), the FASB added a project on nonbusiness accounting objectives to its agenda. In December 1980, the FASB issued *Statement of Financial Accounting Concepts No. 4: Objectives of Financial Reporting by Nonbusiness Organizations (SFAC No. 4)*. The concepts statements are not intended to establish accounting principles but to be a framework to build standards on. *SFAC No. 4* focused primarily on the needs of present and potential external resource providers such as lenders, suppliers, members, contributors, and taxpayers and recognized that information useful for resource providers was likely to be of service to other groups also. Thus the FASB accepted specific responsibility for accounting for all types of nonbusiness organizations, excluding state and local governments. FASB pronouncements are to be applied to nonbusiness organizations unless circumstances or information needs require a different treatment.

In June 1981, a Task Force was appointed for the FASB Nonbusiness Project, to consider the types of information that meet the objectives set out in *Statement of Concepts No. 4*. In July 1983 the FASB decided that the same concepts should be applicable to both nonbusiness and business organizations. *Statement of Financial Accounting Concepts No. 6 Elements of Financial Statements* which encompassed not-for-profit organizations as well as business enterprises replaced Concepts Statement No. 3 and amended Concepts Statement No. 2.

The first FASB publication to have VHWOs as its primary focus was: Proposed Technical Bulletin 84-e "Accounting for the Joint Costs of Direct Mailings Containing Both a Fund-Raising appeal and A Program Message". Unfortunately, the proposal which the FASB had hoped would reconcile " . . . the differing views of those associated with not-for-profit organizations' financial statements" [FASB, 1985, p. 2] did not have the support of preparers, regulators and auditors. The Board therefore dropped the project from its agenda.

CONCLUSION

Many changes have occurred in VHWO accounting, especially in the late 1960's and early 1970's, but problems still exist as evidenced by the Listro study discussed above. Although accounting can and should be of use to internal and external parties in evaluating the efficiency and effectiveness of organizations, it is not currently as useful as it could be. Little recent research has been done on the needs of these internal and external[4] users of information about VHWOs.

Some social work professionals question the benefit of accounting for VHWOs. Many accounting systems do not provide managers with information they can use to make decisions [Hariston, 1985]. VHWOs operate as if there were two completely independent sets of goals — one concerned with clients and one with money. Managers and staff members see little or no direct relationship between financial practice and the central thrusts of agency programs [Lohmann, 1980]. Or as Teicher [1980] said, "When those with accounting mentalities sit in the driver's seats, they can scoff at the soft minded, tenderhearted social worker who may have difficulty expressing the value of the social agency in cost effective numbers" [Teicher, 1980, p. 103]. Although not all social work professionals are as negative as Teicher, (Hasenfeld [1983] and Patti [1983]), VHWO administrators often do not relate accounting to internal or external organizational benefits.

Despite the improvements which have occurred in VHWO accounting, research is still needed to make accounting and

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[4]Both Reynolds (1981) and Seville (1983) have studied external users of VHWO Reports.

reporting for VHWOs useful to internal and external decision makers.

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APPENDIX 1

Summary of Accounting Principles

YMCA 1950
Fund Accounting
  Endowment
  Plant
  Current
No Depreciation
Cash or Accrual but Cash for Revenue
Property Maintenance Reserve

Los Angeles 1955
Depreciation Not Required
Cash or Accrual but Cash for Revenue
Functional Classification of Expenditure

New York 1956
No Fund Accounting
No Depreciation
Cash Basis Only

Englander 1957
Fund Accounting
No Depreciation
Cash, Accrual or Modified Accrual
Match Revenues and Expenditures for Earned Income Only
Match Contribution and Expenditures in Same Period

Overhiser 1962
Fund Accounting
Accrual
Functional Classification of Expenditures

Standards 1964
Fund Accounting
- Current
- Plant
- Endowment
- Custodian
- Funds Functioning as Endowment

No Depreciation unless "Funded"
Accrual
Pledges Assets and Revenue when Made
Record Donated Materials but not Services
No Allocation of Joint Costs Involving Fund-Raising

Henke 1965
Fund Accounting
Depreciation
Accrual
Pledges Assets but may be Deferred Revenue

Audit Guide 1967
Fund Accounting
- Current
- Plant
- Endowment
- Loan
- Annuity
- Custodian

Depreciation Not Required
Accrual
Functional Classification of Expenses
Pledges Assets but may be Deferred Revenue
Record Donated Materials and Services
Allocation of Joint Costs Allowed
Investments could be Valued at Market

Advisory Committee 1973
Fund Accounting but show across Fund Totals
Depreciation
Accrual
Functional Classification of Expenses
Pledges Assets and Revenue when Made
Record Donated Services
Investments Valued at Market

Audit Guide 1974
Fund Accounting
- Current
- Plant
- Endowment
- Custodian
- Loan & Annuity

Depreciation
Accrual
Functional Classification of Expenses
Pledges Assets and Revenue when made
Record Donated Material and Services
Allocation of Joint Costs Including Fund Raising
Investments could be Valued at Market

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MUNICIPAL ACCOUNTING REFORM c. 1900: OHIO'S PROGRESSIVE ACCOUNTANTS

Abstract: Despite the fact that municipal accounting was a significant and permanent reform of the Progressive era, historians have failed to accord accountants proper credit for their leadership roles. Ohio was an important Progressive state and is particularly suited to an investigation of the contribution made by accountants. Ohio was the first state to require uniform municipal accounting and one of the first to inaugurate budgeting. Municipal research bureaus in major Ohio cities were among the most dynamic in the nation, inspiring important steps forward in cost accounting, budgeting, and the installation of accounting systems. Progressive municipal administrations came to depend increasingly on expert accountants to devise new systems and to audit the results.

INTRODUCTION

Municipal accounting was chaotic in the late nineteenth century. "Inaccurate," "unintelligible," "defective," and "unfathomable" were only a few of the pejoratives used in accounting literature to describe municipal books and systems. There was a singular lack of uniformity — different departments of the same government frequently used totally dissimilar systems. Accrual accounting was virtually unknown; budgeting was infrequent at best; auditing of the city books was rare; and cost accounting methods as basic as central purchasing and stores control were still a quarter-century in the future [Chase, 1902; Goodnow, 1904; Hamman, 1914; Hartwell, 1899]. This lack of accounting system and control was superimposed on an alarming landscape of urban corruption. Cities, growing rapidly as a result of industrialization and immigration, were barely able to provide basic public services with honest administration. In the

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more common cases of dishonest government, graft and inefficiency were rampant.

During the thirty-year period from 1890 to 1920, reform movements swept the country. Known to historians as Progressivism (a term used to describe both the reform movement and the era), this period saw the introduction of major reforms in the structure and conduct of city government. Accountants and accounting systems were instrumental in several of the most significant aspects of urban reform.

The State of Ohio has enjoyed a certain attention in the multitude of studies of the Progressive era. Two of the country's most famous reform mayors were from Ohio — Cleveland's Tom L. Johnson and Toledo's Samuel "Golden Rule" Jones. The state had its share of corrupt administrations as well, including that of Cincinnati's Boss George B. Cox. Lincoln Steffens, the consummate muckraker, brought national attention to the state with his article in *McClure's Magazine* [1905]. "Ohio: A Tale of Two Cities" contrasted Johnson's Cleveland and Boss Cox's Cincinnati as the prototype and antithesis of good urban government. The history of municipal accounting reform in Ohio mirrors the efforts of accountants across the United States as they created systems and organizations designed to end corruption in city government.

THE MOVE TO UNIFORM ACCOUNTING METHODS

The beginnings of accounting reform in Ohio can be traced to the passage in the mid-1850's of a state scheme for grouping municipalities for legislative purposes. The system was designed to forestall so-called "ripper" legislation, interference by the state government with the internal affairs of a specific municipality. The legislation did not operate as intended, however (some categories had only one city), and was declared unconstitutional in 1902. The state had to move quickly on a new municipal code, for suddenly no legal governmental form existed for any Ohio municipality. Progressives hoped that the state legislature would adopt something resembling the model municipal program adopted in 1899 by the National Municipal League (NML), a highly influential reform agency organized in the mid-1890's. The outcome was quite different. The Ohio Code of 1902 was proclaimed a "disaster for cities," and a "[Boss] Cox frame of municipal government" [Wilcox, 1904].

As disappointing as the Code might have been, the accounting provisions were encouraging. The State Auditor was delegated the power to supervise and control the accounting reporting of all taxation districts, ranging from the largest cities to school districts, a power which the office still holds. The legislation also established a Bureau of Inspection and Supervisors of Public Offices, under the State Auditor's Office, to enforce conformity.

Uniformity of municipal accounting had become a major goal of the NML. Through its Committee on Uniform Municipal Accounting, the NML had authored a number of standardized schedules — schedules which were first adopted at a state level by Ohio. The schedules were adopted due in part to their inherent quality, but also due to the propagandizing efforts of peripatetic accountants such as Edward M. Hartwell and Harvey S. Chase, both of whom were members of the NML Committee. It was this same Chase, a Boston CPA, who was hired by Ohio to draft the legislation under which the Bureau of Inspection was to operate. Thus, it should come as no surprise that the standardized forms drafted by the State of Ohio paralleled, almost exactly, the schedules developed by the NML. The central features of the forms were fourfold:

(1) a distinction between revenue/expense accounts (placed on the "A" schedule) and asset/liability accounts (which were placed on the "B" schedule);

(2) an arrangement of summaries and statements of totals more conducive to interpretation;

(3) a division between ordinary and extraordinary items; and

(4) a functional — in lieu of the traditional alphabetical — categorization of departmental accounts [Chase, 1903].

The outside world was much impressed with Ohio's becoming the first state to legislate standardized schedules. Edward Hartwell, the guiding light of the NML's Committee, called passage of the legislation a "most notable occurrence" [Hartwell, 1903]. LeGrand Powers, chief statistician of the Census Bureau, and the man whose job it was to collect comparative statistics for all cities and states in the country, saw the Ohio "experience" as a great forward step in easing his task [Powers, 1906]. Professor Frank Goodnow of Columbia, a foremost academician in municipal political science, wrote that Ohio was one of only two states with proper state control over municipal accounts. "There is no question," he wrote, "but that city government in the United States would be greatly benefited by the adoption of such a system" [Goodnow, 1904]. Harvey Chase would spend the better part of the next ten years advising local governments on the adoption of new accounting systems based on the model schedules drafted by the NML Committee on Uniform Accounting Methods.

The Ohio Act of 1902 brought the promise of uniformity to 72 cities, 88 counties, 700 villages, 1600 townships, and 2,800 school districts. A. B. Peckinpaugh of the State Auditor's Office informed the NML's membership of the pros and cons associated with the new system's implementation. Problems included the reluctance of local officials to accept the new forms (convinced as they were of the superiority of their old accounting systems); the insecurity generated in local officials by the inspection provisions of the Code (the Bureau of Inspection and Supervisors of Public Offices had the power to enforce conformity with the new schedules); and the inadequate compensation paid to inspectors, which resulted in a shortage of qualified people. Nevertheless, the State Auditor's Office felt it an "incontrovertible fact" that municipal finances improved markedly with the introduction of uniformity. The inspection feature and the publicity given to the inspectors' reports had encouraged a new level of honesty. Not only was there a significant deterrent effect, but $700,000 of illegally spent funds had actually been recovered by 1906 [Peckinpaugh, 1906].

Ohio's venture into uniform municipal accounting was Progressivism by accident. Improved accounting methodolgy was a small progressive part of the largely reactionary Ohio Code of 1902. It would be another eight years before Ohio politics would become more liberal. In 1910, during the administration of Judson Harmon, Ohio passed the Langdon Bill ending appointed state and county assessors, and in 1912, during the term of Governor James M. Cox, (no relation to Cincinnati's Boss Cox) the state accelerated into Progressivism with the passage of the long-awaited home rule amendment. The state did not relinquish financial control, however. The standardization and inspection provisions of the 1902 Code had worked so successfully that they were preserved. The municipalities were given the right to choose between one of three governmental structures approved by the legislature, but they were not permitted to infringe upon the state's right to require uniform accounting reports and examine municipal accounts.

One Progressive reform of the first Roosevelt administration (1901-1905) was the extension of the charge given initially to the U.S. Department of Labor (1899) and subsequently to the Bureau of the Census (1902) to compile statistics on municipal operations for comparative purposes. By virtue of its lead in mandating uniform accounting, Ohio received considerable credit from the regular reporters to the National Municipal League. Clinton Woodruff, the Secretary of the NML, Edward Hartwell, the

Chairman of the NML Committee on Uniform Municipal Accounting, and LeGrand Powers, the chief statistician of the Census Bureau, frequently recalled Ohio's leadership. Ohio's state officials were not content to rest on their laurels, however. Joseph Tracy, the head of the Ohio Bureau of Inspection and Supervision of Public Offices, and F. R. Leach, head accountant of the Cincinnati Bureau of Municipal Research, worked diligently during the Fall of 1912 on revising the 1902 schedules, to permit greater control over expenditures and more intelligent reporting [Miles, 1912]. In 1914, State Auditor Donahey took the offensive beyond Ohio, urging Director Harris of the Census Bureau to impose reporting standards on those states which did not have uniform municipal schedules [NML, 1914].

MUNICIPAL BUDGETING

Wisconsin, California, and Massachusetts were the first states to implement a complete budget system. Ohio (in 1913) was in a second wave of a half-dozen states [Cleveland and Buck, 1920]. Credit for this achievement goes to an appointed budget commission under the direction of W. O. Heffernan, a trained accountant. The commission did research on departmental estimates, past and present, and with the cooperation of the New York Bureau of Municipal Research (NYB) devised a system which included standardized appropriation accounting [Fullington, 1916]. Although other states implemented budget legislation before Ohio, the NYB credited Ohio as the "first state adopting financial control through budget" [NYB, 1916].

Municipal Research Bureaus

The municipal research bureau was an early progressive weapon in the fight against corrupt and inefficient city government. The first, the New York Bureau of Municipal Research, was founded in 1906, by a group of businessmen, accountants, engineers, and social scientists, to tackle the problems of the largest city in the United States. The founders included Dr. Frederick Cleveland, a university professor and staff accountant with Haskins and Sells. After achieving considerable success in New York, reformers from the NYB migrated throughout the country spreading the "gospel of efficiency" to other cities. A 1916 article in the *National Municipal Review* listed 23 research bureaus operating around the country, five in the State of Ohio [Rightor, 1916]. Eventually, bureaus operated in Cleveland, Akron, Columbus, Cincinnati, Dayton, and Toledo, with varying degrees of success. Bureau staff were instrumental in implementing sound accounting systems, internal control, budgeting, and productivity measurement. In New York and elsewhere, their primary goal was often the implementation of budgetary control in municipal government. In fact, the introduction of municipal budgeting can be fairly claimed to be one of the great success stories of Progressive era accountants.

Those constituent municipalities with active research bureaus developed superior budget systems. The Cincinnati Bureau bragged that the forward steps it had initiated ranked the city's "budget methods among the best in the country" [Cincinnati Bureau, 1913]. The Dayton Bureau, which had published the city's budgets from the inception of the agency in 1912, was similarly boastful; its director called the Dayton model "one of the most complete budgets found in any city" [Rightor, 1916]. The revised budget procedure initiated by Cleveland in 1915, drew praise as "an excellent piece of detail work," requiring a great amount of clerical participation which most communities could not afford [Rightor, 1916]. The link among these early budgets was that they were all segregated and were all subject to citizen review at public hearings.

Extravagant public displays, known as "budget exhibits," were another progressive innovation. The budget exhibit used billboards and posters to show the public how its money was being spent. A tool of public education, the budget exhibit was introduced in New York in 1908 and quickly spread around the country. Attendance at the 1912 exhibit in Cincinnati was estimated between 109,000 and 150,000 persons. At that time it was the largest exhibit of this type ever held outside New York City. Successful budget exhibits were sometimes held in conjunction with city requests for additional tax support for public services. Exhibits were credited with increased citizen awareness and passage of levies in Cincinnati, Dayton, and other cities.

ACCOUNTING SYSTEMS

Cleveland was one of only a few cities in the country with a respectable accounting system which predated the prodding of municipal research bureaus and the NML. In the late 1880's, Cleveland's municipal bookkeeping was sadly typical. There was no centralized accounting, and departmental efforts were so inadequate that bills were often paid twice. In 1891, there was a governmental reorganization. A centralized department of accounts was created, with the power to prescribe the form of all reports from every department. This reform earned Cleveland a citation, along with Philadelphia, Detroit, and New York, as a city with an early establishment of sound accounting systems, "like those of private enterprise" [Upson, 1926]. Tom L. Johnson (who, along with Hazen Pingree in Detroit and Samuel Jones in Toledo, would become one of the most famous reforming mayors of the Progressive era) took office in Cleveland in 1901. By 1907, the Cleveland Office of the Comptroller had been created.

Strict accountability was a major feature of this Johnsonian reorganization. The Comptroller received reports from the various city departments on all monies received and disbursed *on a daily basis*. It is no wonder that Cleveland's accounting system received high praise from no less an observer than Professor Leo S. Rowe of the University of Pennsylvania, the architect and defender of the accounting features of the NML's model municipal charter [Rowe, 1899]. The first national convention of the NML was held in Cleveland in 1895, in recognition of the city's progressive efforts in the area of good municipal government.

A state-wide research bureau, called the Ohio Institute for Public Efficiency, was established in 1913 (under Rufus E. Miles, formerly the Director of the Cincinnati Bureau of Municipal Research), to provide research services for municipalities too small or impoverished to afford bureaus of their own. Although the Institute did precious little for smaller towns, it was instrumental in installing improved municipal accounting systems in Akron, Columbus, and Toledo [NYB, 1916].

Cost Accounting

The usual first step in the development of cost accounting procedures was central purchasing. Again, Cleveland was the first Ohio city to have central purchasing, via an executive order of Mayor Johnson in 1907. Columbus was one of the last cities, awaiting the coming of a new charter in 1914. Dayton's Municipal Research Bureau was instrumental not only in the implementation of central purchasing but in the development of quality and cost standards as well. The Cincinnati Bureau was also extremely active; a letter was sent to the mayor in 1911 recommending the creation of a Committee on Economy and Efficiency whose agenda would include investigation of work standards, monthly cost statements, purchase price standards, supplies control, and inspection [Cincinnati Bureau, 1911]. In addition to lobbying successfully for the establishment of such a committee, the Cincinnati Bureau accepted credit for improved cost methods in seven different city departments. According to a pamphlet distributed at the 1913 Budget Exhibit, "Cincinnati will soon be one of the few cities in the country where accurate figures as to cost are obtainable" [Cincinnati Bureau of Municipal Research, 1913b].

THE EXPERTS MOVEMENT

Reforms in budgeting, systems development, and cost accounting were structural. One nonstructural feature of municipal progressivism at the national level was the increased reliance upon experts, a trend that is recorded in historical texts as the "expert movement." The honest reformer unaided was no match for the grafters. Systems were necessary, and experts were needed to install and maintain efficient systems. It was through the expert movement that accountants were brought into municipal government to establish budget and general accounting structures.

Henry M. Waite, Dayton's first city manager, was committed to the utilization of experts in his administration. He appointed a local public accountant as his director of finance. In 1914, the new director switched the accounting from cash to accrual and instituted controls on appropriations. Frederic Howe, a prolific writer and astute observer of the urban scene (particularly in Cleveland where he was a trusted ally of Tom Johnson), was most impressed with the business methods and expert supervision in Dayton [Howe, 1969].

Cleveland's Tom Johnson was of that school of Progressivism which put little store in the contribution of experts. He rejected the view of those reformers whom historian Melvin Holli labeled the "structural Progressives;" those who believed that businessmen and experts in municipal positions were necessary for reform [Holli, 1974].

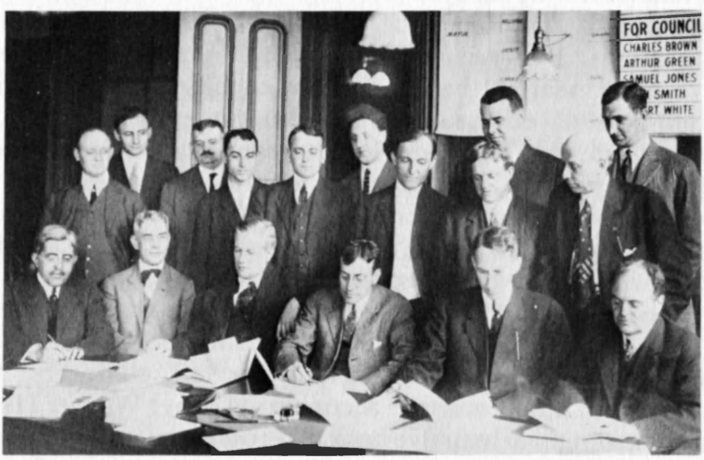
Johnson had good reason to distrust expert accountants (or, perhaps more accurately, the keepers of the tax rolls). In his autobiography, Johnson devoted great space to his career-long fight against the political toadies who used the process of taxation to perpetuate privilege. When Johnson became Mayor of Cleveland, the city's property tax base was determined by elected appraisers under the supervision of a board of equalization; a board chosen by the mayor. But outside the city limits, popularly-elected county auditors appointed assessors who, in turn, made property valuations. Johnson was particularly furious with the rampant political jobbery that dominated the selection of members for this petty officialdom (see political cartoon). It was one of the ways in which public utilities (including street railway companies) thwarted what Johnson perceived to be the public welfare. In 1901, Johnson established

Tom L.'s Great Sleight-of-Hand Act

his famous "tax school" (forerunner of the municipal budget exhibit) to inform the public regarding inequities in the tax appraisal system.

In his four terms as mayor, Johnson was able to eliminate the "boodlers" in Cleveland, but he was tilting at windmills when it came to the county auditors. He was a master at creating political enemies — state administrators, hostile newspapers, and threatened franchise-holders. The opposition fought back using expert accountants who were sent in almost yearly to investigate the books. For all their efforts they found no graft [Johnson, 1970].

Johnson was too much the political realist to sever relations with the entire accounting profession in response to the abortive tactics of his detractors. He did have a Cleveland CPA, Carl H. Nau (seated second from left in the picture), as a close lieutenant.



Nau wrote an article for the *Journal of Accountancy* [1907] on the 3 cent fare movement in Cleveland, chronicling the city's attempts to extend the existing street railway lines and ensure competitive bidding by transit companies. The piece was pure Johnsonianism, featuring much *obiter dicta* on how franchises must be controlled for the benefit of the city. Nau became a member of Cleveland's fifteen man charter commission "chosen avowedly as a member of the accounting profession." Nau felt it his particular responsibility to solicit input from NYB accountants on language for the accounting procedures and the audit control section. Thanks to Nau's efforts, the new charter required that municipal records be audited at least once a year by a CPA who had been licensed in Ohio, or in a state with equivalent standards, for at least three years [Nau, 1913]. Nau was also active in Toledo, where Brand Whitlock, Samuel Jones' handpicked successor, relied upon Nau's firm to examine the books of utilities, particularly the Toledo Rail and Light Company [Warner, 1964].

Henry Hunt, the immediate post-Cox era Mayor of Cincinnati, also felt that government was a profession for trained experts. The Ohio Institute for Public Efficiency, the state-wide organization for research and reform, was also committed to the use and training of experts for municipal government.

CONCLUSIONS

Municipal accounting reform was a clear manifestation of Progressivism in Ohio. At the state level, Ohio was a leader in the development of budgeting and uniform municipal statistics. Cleveland, from the earliest years of Progressivism, was a model of good government. Cincinnati and Dayton had two of the most effective municipal research bureaus in the history of the Progressive movement. Although accounting advances sometimes resulted from the efforts of non-accountants, professionals such as Chase, Nau, Heffernan, and Leach clearly played major roles.

Historians have attempted to identify the socioeconomic classes which provided leadership for the Progressive movement. When Richard Hofstadter [1955] described the "alienated professionals" who served as leaders for the Progressive movement, he mentioned lawyers, professors, newspaper editors, and ministers, ignoring the contribution of accountants. Samuel Hays [1971] expanded the list to include doctors, engineers, and architects, but again omitted accountants. Hoyt Warner [1964] wrote a seemingly exhaustive book on Progressivism in Ohio, yet he also devoted no attention to municipal accounting reform.

For the most part, historians have been unimpressed with advances made during the Progressive era. The reforming impulse was not rekindled after the rechannelling of energies during World War I. Municipal research bureaus vanished with the reforming urge, although some of the problems which the movement had sought to address continued unabated. These historians have failed to appreciate the importance of developments in municipal accounting. Greatly enhanced control and accountability, put in place by progressive accountants and their allies, left little room for extensive corruption or inefficiency. Many municipal research bureaus went out of existence because their job was done.

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THE PROBATIVE CAPACITY OF ACCOUNTS IN EARLY-MODERN SPAIN

Abstract: This paper examines the probative capacity of accounting records as explicated in the accounting literature of early-modern Spain. Several early examples of Hispanic legal texts constitute the principal sources. The chief findings to emerge from this study are that legal requirements greatly influenced accounting forms and procedure during this period and that Castilian jurisprudence encompassed a theory and standards of evidence to guide the use of accounting records as evidential matter.

INTRODUCTION

The theory and practice of accounting have over the course of their evolution been profoundly influenced by the law. This relationship is a natural consequence of the social character of accounting activity. As Goldberg has expressed, the fact that accounting practices "are subject to constraints of law is simply a recognition that they are of sufficient significance in the lives of a sufficient number or proportion of people in the community to warrant the attention of the lawmakers" [Goldberg, 1965, p. 9].

The principal sources of legal influence on accounting have been judge-made precedent and, perhaps more obviously, outright legislation.[1] In the common law tradition, precedent exerted the earliest impact, establishing "the foundations as well as many of the specific practices in generally accepted accounting long before statutory legislation" regulated accounting in the areas of taxation, securities, bankruptcy and elsewhere. Those countries dominated by the Roman law tradition, on the other hand, normally made earlier and more extensive use of legislation in formulating accounting rules. In both cases, the use of accounting records and other business documents as legal evidence has influenced the development of accounting thought and practice. It is the purpose of this paper to explore part of the early history of this use in the European, civil law context.

[1]The author is indebted to an anonymous reviewer for providing this insight.

The paper begins by describing the principal sources for the present discussion: sixteenth- and early seventeenth-century Hispanic literature on the probative capacity of accounting records. It also presents biographical information on the authors of these works. The paper then proceeds to a discussion, in broad historical perspective, of how evidential requirements for business transactions evolved. With the scene thus set, the probative capacity of accounting records in Castilian jurisprudence is explored, including types of proof, the concept of sufficient evidence, requirements of form, and the application of evidential standards as explicated by major juridical writers of the period.

THE SOURCES

Because of its growing importance to commercial law, the use of accounting records as evidential matter was the subject of some discussion in premodern legal literature. A number of medieval legists touched on the topic in the course of other works,[2] and in Spain several juridical writers of the sixteenth and early seventeenth centuries addressed the matter, although most only briefly.[3] Three of these men treated the subject in some depth, however, making their works important early-modern sources for the study of accounting and law. These texts are the *Tratado de Cuentas* by Diego del Castillo; *De ratiociniis administratorum* by Francisco Muñoz de Escobar; the *Curia Philippica* by Juan de Hevia Bolaño; and the *Laberinto de commercio terrestre y naval* also by Hevia Bolaño.

First published in 1522, the *Tratado de Cuentas* or *Treatise on Accounts* is the earliest Spanish contribution to accounting literature. Little is known about the life of its author, Diego del Castillo, including his date of birth. A native of Molina de Aragon in the province of Guadalajara, Del Castillo trained at Bologne as a jurist, obtaining the licentiate by 1522 and the doctorate around 1527. He wrote several other works in addition to the *Tratado*, the most influential of which was *Las leyes de Toro glossadas*, the first published commentary on the Laws of Toro. Del Castillo wrote the *Tratado* in order to appraise stewards and estate agents of their legal obligations in the area of recordkeeping, and to instruct them in a general way in proper reporting and

[2]Pierre Jouanique cites the contributions of these men in "La comptabilité dans les decisions de la Rote de Gênes," *passim*.

[3]Esteban Hernández Esteve provides a listing of these writers with information concerning their backgrounds, works and influence in *Contribución al estudio de la historiografía contable en España*, pp. 102-123.

accounting procedures. In part eight of the treastise, he discusses the conditions under which accounts are accepted as proof of the financial realities they purport to represent [Mills, 1986].

The widespread use of deputies, administrators and other kinds of agents in both business and agriculture made the stewardship function a popular theme in the legal literature of early modern Spain. Over the course of the sixteenth century, a number of writers touched on the accounting aspects of the agent-principal relationship, particularly relations in the public domain. Francisco Muñoz de Escobar, a magistrate of the Chancillería of Valladolid, provided the lengthiest and most complete comment on stewardship in his massive work, *De ratiociniis administratorum et aliis variis computationibus tractatus* . . . .[4] The details of the author's life are really no better known than those of his predecessor. A native of Benavente in Zamora, Muñoz de Escobar graduated in law and served in his early career as an advocate or *abogado*, the highest of the ranks in the hierarchy of lawyers that serviced the Castilian legal system. By 1603, the year of his treatise's publication, he had already advanced to the magistracy of the royal tribunal at Valladolid. The date of his birth is thought to be around 1570, which would have made him a relatively young man at the time of his promotion.

In the dedication to his book, Muñoz de Escobar [1646, (:)2v] claimed inspiration for his work from two sources: his reading of Del Castillo's earlier and much shorter tract, which he described as "that little tract . . . composed in the vulgar tongue"; and also the interest Charles V, Holy Roman Emperor and King of Spain, had supposedly expressed in a fuller literary treatment of stewardship accounting for public institutions. Muñoz de Escobar responded at length. In 42 chapters, totaling 650 pages, he explained from a juridical standpoint accounting for property held in agency. He included in the discussion such topics as the kind of information important to record; the types of individuals required to keep accounts; methods of reporting; the specific obligations of administrators as farm stewards, guardians of minor children and in other capacities; and most importantly for the present purpose, the probative force of the administrator's accounts.

Written in Latin, *De ratiociniis* was a popular work, and it saw numerous subsequent editions, the majority of which ap-

[4]For further information on the life and work of Muñoz de Escobar, see Pierre Jouanique, "La vie et l'oeuvre de Francisco Muñoz de Escobar," *Revue belge de la compabilité* (numbers 3 and 4, 1965; numbers 1 and 2, 1966).

peared outside of Spain.[5] The greater appreciation shown for the work outside of the realm than within has been attributed to language. At about this time, literate Spaniards were beginning to display a marked preference for technical works in their own tongue, and this change in taste may account for the author's wider readership outside of the penninsula [Hernández Esteve, 1981, pp. 91-92[.

The work of Juan de Hevia Bolaño may have exercised an even greater influence. An exact contemporary of Muñoz de Escobar, Hevia Bolaño was born in Oviedo around 1570 to an old family of the lesser aristocracy. There remains some mystery surrounding his education. Although a university degree was the normal route to advancement for young men of his class, there is as yet no conclusive evidence that Hevia Bolaño ever underwent university training. That he should have foregone a higher education is surprising, considering not only his family background but also the high degree of erudition displayed in the *Curia Philippica* and the *Laberintho de commercio terrestre y naval.* The point is of itself a minor one, but among those who doubt his academic credentials it has been used to suggest that Hevia Bolaño is not after all the author of these texts [Lohmann Villena, 1961].

In any case, Hevia Bolaño was apprenticed at an early age as a clerk, and it was as a scribe and notary in the royal courts, including the Chancillerías of Valladolid and of Granada, that he probably spent the better part of his professional life. Around 1590 he emigrated to Peru. It was in Lima in 1603 that he published his *Curia Philippica;* the text of the *Laberintho* followed in 1617.

The *Curia Philippica* or *Law Court of King Philip* is not a work of accounting literature *per se* but rather a manual of procedural law. It does, however, make a small but significant reference to the evidential significance of account books. More importantly, the work treats the idea of proof *(prueva)* as used in Castilian jurisprudence and thus, provides a context for the discussion of probative capacity. The author's second work, *The Labyrinth of Naval and Land Commerce,* is a treatise on commercial law, indeed, the first and only treatise on Spanish commerical law until the beginning of the nineteenth century. In this book, Hevia Bolaño devoted two full chapters to the legal issues surrounding accounts and account books, including probative requirements.

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[5]The 1646, Nuremberg edition of *De rationciniis* was the text used in the preparation of this paper. Although rather late, it has the advantage of being widely available.

Both works were immediately popular and saw several editions in the first decades of the seventeenth century. Beginning in 1644, the two books of Hevia Bolaño were published conjointly as parts one and two of a single text under the title of the *Labyrinth.* In this form the work became a classic of Spanish legal literature and continued to be published until the mid-nineteenth century [Hernández Esteve, 1981, pp. 83-84].

In using the above texts in historical research, it should be remembered that they are works of legal literature drawn from the Roman or civil law, royal legislation and the opinions of previous scholars. They are not documents produced by the juridical process itself. Consequently, it is open to question whether they accurately portray in all details how accounting records were used in actual litigation. Although outside the scope of the present study, one approach to clarifying the issue would be to compare the literature on accounting evidence to minutes or other documents of relevant court proceedings from the same period. Research of this character has already been undertaken using sixteenth-century records of the Geneose civil court, *la Rote* [Jouanique, 1984, pp. 339-347].

In the same vein, it should also be borne in mind that these texts draw heavily on other sources, most notably the work of medieval and Renaissance legists. Accordingly, many of the ideas they express are unoriginal to their authors. Nevertheless, the particular contribution of these writers was to have identified, amassed and summarized for an early-modern readership a wealth of previous scholarship on the probative capacity of accounts and other accounting related matters.

EVOLVING CONCEPTS OF EVIDENCE

Early business procedure in the western tradition was predominatly oral in character. There is some evidence from the Hellenistic period that written documents played a role in validating contracts in Greece and Egypt. The Romans, however, relied on oral engagements in their business dealings throughout the period of the Republic. This form of the contract, in which the parties recited the terms of the agreement in the presence of witnesses, only gradually evolved into written business procedure. Usher identifies 3 principal stages in this process: the eventual use of written records, along with other types of evidence, as proof of oral transactions; the intergration of the written instrument as an essential step in the transaction process; and finally, the use of oral proceedings as mere preliminary to engagement by a writing. By this juncture, the written record of a business transaction constituted the only sure basis of legal action in the event of breach. This last form of procedure, which approximates modern business usage, first appeared in Europe during the sixteenth century [Usher, 1943, pp. 28-29].

The transition from oral to written business procedure played an important role in the development of accounting records. While contracts remained essentially oral engagements until well into the medieval period, bankers' account entries were regarded at law as evidence of loans and other financial contracts by the sixth century. The use of book entries as evidence gave the bank journal a legal as well as an accounting function, which caused bankers to observe greater detail in their journal entries than was strictly necessary for merely keeping accounts.

The use of account entries to impart greater force to obligations was eventually adopted in other areas of business, but the records of the bankers long retained a special status. Early medieval laws elevated the banker's journal to the status of a public record, making it similar in probative capacity to the registers of public notaries [Usher, 1943, p. 11]. According to de Roover [1943, p. 150], rules concerning the authenticity of public records were later extended by Italian guild and municipal statues to merchantile account books. There are indications, however, that this practice was observed earlier among the Italian city-states than in other areas of Europe.

By the sixteenth century, the written instrument commanded wide respect in the Castilian legal system as a form of proof in business transactions. This acceptance extended to the account book, however it was not unqualified. Spanish legists feared that if book entries were accepted as obsolute confirmation of indebtedness, unscrupulous moneylenders would be tempted to create fictitious obligations, making "debtors of whomsoever they wish, by the simple fact of noting down in their books" [Hernández Esteve *et al.,* 1981, VII/2-6]. To avoid this outcome, the admissibility of accounts at law was subject to an array of probative requirements.

FORMS OF PROOF AND SUFFICIENT EVIDENCE IN CASTILIAN JURISPRUDENCE

The term most often used in Castilian jurisprudence to signify evidence was *prueva,* proof. *Prueva* was considered first and foremost an investigative process: "an inquiry at law that arises as a result of uncertainty" [Hevia Bolaño, 1609, C.I, para.

17].[6] Nevertheless, legal texts also distinguished types or categories of evidence and referred to them as *prueva.*

Both subjective and more concrete forms of evidence were recognized in civil procedure. The subjective variety contained what Lalinde Abadía [1974, p. 544] has called a "psychological aspect" and included such evidential matter as the oath *(el juramento),* confession *(la confesión),* the testimony of witnesses *(el testimonio),* public rumor of events *(la fama),* and inferences drawn from established fact *(la presunción).* Courts also entertained more objective forms of evidence, the most important of which for present purposes were written instuments.

As with modern jurisprudence, not all kinds of proof carried the same weight. Jurists distinguished between those forms that by their existence confired the point at law and those that merely lent it support. The capacity to induce "full" or "complete" belief, referred to as *plena provance* or *entera fee,* was inherent in centrain types of proof, but in many cases treatment as confirming or supporting evidence depended on circumstances.[7]

For example, in the case of an accounting record submitted as evidence, the contents qualified as confirmatory proof only when it argued against the interzsts of the book's author. In the case of receivables or other transactions favorable to the author, book entries served merely as supporting evidence, or *semiplena provanca,* which induced only partial belief, *media fe.* According to Del Castillo [1522, P. VIII, f. 15r], this dichotomy reflected the wider legal dictum that a defendant "can testify against himself but not in favor." In order to validate the author's claim against a second party, the evidence of the accounts required the support of additional kinds of proof or *otros indicios.* One common form was the oath sworn by the author on the truthfulness of his record.

The oath as a juridical device entered the Spanish legal tradition from both the Roman and Visigothic law. By the later medieval period it had evolved into two forms, the single oath, that of a lone individual, and compurgation, which required the swearor to support his oath with the oaths of a number of

[6]For the purposes of this paper, citations to primary sources are made by author, date of publication, and divisions of the work where numbered. Standard divisions are book (B.), part (P.), chapter (C.), paragraph (para.), and folio (f.) or page (p.). Folios or pages are indicated only where paragraphs are unnumbered. The reader should note that the foliation or pagination of different editions may vary.

[7]For a complete exposition of the hierarchy of proofs in Roman law procedure, see J.Ph. Lévy, *La hièrarchie des preuves dans le droit savant du moyen-age depuis la Renaissance du Droit Romain jusqu'à la fin de XIVe siècle* (Annales de l'Université de Lyon, 1939).

coswearors or compurgators. Compurgation was uncommon in Spain, and it was the single oath most in use [Lea, 1974, pp. 21-24, 74].

Whatever the form, the oath was a means by which a legal question or suit could be commended to God for resolution in the absence of other compelling evidence. The use of the oath in this manner depended on society's belief in the concept of immanent justice, which accepted the possibility, indeed the probability, of divine intervention in human affairs on a regular basis [Peters in Introduction to Lea, 1974, p. 7]. In the case of the oath, it was thought that divine displeasure at an attempted perjury might be regisitered, for example, by preventing the swearor from correctly reciting the words of the oath.

By the sixteenth century, there was apparently sufficient skepticism regarding the efficacy of the oath among legal circles for Del Castillo to relate arguments against its use as a form of evidence. To the contention that an administrator's oath constituted full proof, Del Castillo [1522, P. VIII, f. 14r] responded that according to some sources, "an oath does not make a writing better evidence." It was patently rediculous, these sources claimed, that "all evidence should depend on one lone man," particularly considering that the testimony of at least two witnesses was required as confirming evidence in other types of legal questions. In his own hierarchy of evidence, Del Castillo was unwilling to grant the oath more than medium weight even when coupling it with evidence of the swearor's good standing *(buena fama)* in the community.

Other kinds of proof that reinforced the evidence of the account book included witnesses to a transaction; a judicial sentence ordering payment of an account balance; a receipt or *carta de pago* prepared by a public notary [Del Castillo, 1522, P.VIII, f. 18r]; and a blameless reputation on the part of the author [Jouanique, 1984, p. 340].

DOCUMENT CONDITIONS

Acceptance of the information contained in the account book as true and accurate was not automatic. In addition to satisfying the general probative requirements discussed earlier, the account book had to be written in proper form in order to compel the court's belief in its contents. If the accounts were unclear, confused or in any way unintelligible, they were presumed fraudulent. Lack of detail in posting transactions could also produce an unfavorable opinion. To avoid such an outcome, Hevia Bolaño [1619, B.2, C.8, para. 5] recommended that the author record for each entry the day, month and year; the amounts involved; a notation as to whether these amounts were in goods or money; the reason for the transaction; the parties and their addresses; and the exchange rate for foreign trade.

Fraud might also be adjudged if original entries appeared to be tampered with through "cancellations, erasures, emendations, interlineactions, reductions, errors or additions" [Hevia Bolano, 1619, B.2, C.8, para. 21]. Erasure was permitted in a single instance, however. It was customary to write the owner's name at the beginning of the book. In the case of a partnership, the owner's name and the tag *"y compañeros"* was the normal inscription. Should this indication of partnership no longer be needed, because of dissolution of the relationship, for example, it could be erased without danger of falsifying the book's contents [Hevia Bolaño, 1619, B.2, C.8, para. 4].

Another recommendation was to avoid blank pages. The intended effect of this practice is unclear, but it may have been meant to dispel any impression of omissions in the record. Paciolo in his treatise *Summa de arithmetica, geometria proportione et proportionalita* made the same recommendation, but unlike Hevia Bolaño explained the procedure:

> When an account has been filled and you cannot enter any more debit or credit items, you must carry immediately this account forward to a place behind all the others. Leave no space in the ledger between this transferred account and the last of the other accounts. To do otherwise would indicate fraud in the book [Brown and Johnston, 1963, p. 85].

Paciolo advised in addition that all pages of any business book be numbered and signed, in order to discourage charges that leaves had been excised.

Receipts *(el recibio)* first was the preferred arrangement of accounts in the ledger, but bad ordering was tolerated to a certain extent and did not necessarily result in falsification of the contents [Hevia Bolaño, 1619, B.2, C.8, para. 22].

It should be noted that important though form was to probative capacity, the air of authenticity it lent to a record could be superceded by presumptive evidence. For example, even though correctly entered and ordered, a set of accounts might still fail to induce belief if in the court's opinion the receipts and expenditures they represented appeared unreasonable or improbable. According to both Del Castillo [1522, P. VIII, f. 17r] and Hevia Bolaño [1619, B.2, C.8, para. 21], the weight accorded to this presumptive evidence depended on the magnitude of the amounts involved. Small items of expenditure might pass as factual merely on the basis of the court's surmises regarding their reasonableness, even if confusedly written or lacking in detail. Verisimilitude, on the other hand, was but one among several criteria applied to material amounts.

During the second half of the sixteenth century, legal writers added an important new requirement for properly constituted mercantile accounts — use of double-entry accounting or bookkeeping *por deve y ha de aver*. This stipulation accurately reflected royal law. As early as 1549, royal decrees imposed on merchants and bankers the obligation to keep their books according to the newest method, and the injunction was repeated in later legislation.[8] It should be noted that Spain was the first country in Europe to make use of double entry a legal obligation.

The addition of double-entry accounting as a requirement of form is the single most striking difference between Del Castillo's treatment of probative capacity and the contributions of later juridical writers. Writing in the third decade of the sixteenth century, prior to promulgation of the pertinent legislation, Del Castillo briefly mentions the three types of bookkeeping known to him —*por data y rescibio, por cargo y descargo, con deve y deve aver* — without making adherence to any particular form a probative requirement [1522, P.I., f.3v]. Although accounting *por deve y deve aver* has been identified as at the minimum a close precursor of double-entry bookkeeping, the few subsequent remarks in his treatise on bookkeeping methods concern the more rudimentary forms. One of the consequences of this position is that Del Castillo's text makes no reference to an account book auxiliary to a book of original entry. Nevertheless, his successors were sufficiently familiar with the mechanics of double-entry accounting to draw some distinction between the journal *(libro manual)* and the ledger *(libro de caxa)* in their treatment of accounting records. As the book of original entry or protocol, "which gives rise to the ledger," [Salvador de Solórzano, 1590, C.2, f.2r], the journal was considered in theory superior in probative capacity. The primacy of the journal was upheld in practice by the Genoese civil courts, which also demanded precise agreement between journal and ledger [Jouanique, 1984, pp. 333, 341].

[8]Esteban Hernández Esteve discusses Castilian legislation of the period related to accounting in "Castilian laws of the Lower Middle Ages and beginning of the Renaissance related to merchants' accounting and account books," paper presented to the "Journées Internationales d'Histoire du Droit" (Valladolid, 1981).

THE APPLICATION OF PROBATIVE REQUIREMENTS

Depending on circumstances, the application of evidential requirements could be undertaken piecemeal, that is, on a transaction by transaction basis, or encompass the accounting record as a whole. According to one source, if the account book recorded a variety of largely unconnected transactions, arising from "diverse enterprises and diverse persons," acceptance of a transaction or group of transactions as proven did not imply acceptance of other entries [Muñoz de Escobar, 1646, C.XIII, para. 7]. On the other hand, where an account book was kept from "the necessity of the office or ministry" as in agential recordkeeping, the record was either accepted or rejected as a whole. [Muñoz de Escobar, 1646, C.XIII, para. 10]. It should be noted, however, that the admissibility of presumptive evidence made consideration of any part of an accounting record in complete isolation unlikely. A previous demonstration of fraud or of good faith in one portion of a record could serve as evidence that other parts were similarly affected [Muñoz de Escobar, 1646, C.XI, para. 22].

The dichotomous principle that guided the use of accounting records as evidential matter applied in its entirety to the ledgers of merchants and other private individuals. The records of licensed moneychangers, public bankers and government were exempt, however. Castilian jurisprudence clearly recognized the importance of banking and government finance, and the practical difficulties that would ensue in their pursuit should the collectibility of debts and taxes depend on adherence to legal forms. Accordingly, it made the accounting records associated with these activities complete proof of the transactions they represented, whether receivables or payables. This high degree of probative capacity also characterized the records of public notaries introduced as evidence in legal proceedings. The Genoese civil court accorded public banks and the customs the same privilege during the sixteenth century [Jouanique, 1984, p. 341].

The standard of evidence applied to agential accounts depended on the function of the particular administrator or steward. The agents of private individuals or corporate bodies, such as churches, monasteries and hospitals, labored under the same burden of proof as merchants; their records served only as supporting evidence in claims against principals or third parties. Government agents, including accountants in royal employ, most tax collectors and assayers of the coinage, enjoyed the special status regarding full probative capacity conferred on the accounting records of publicly constituted bodies and licensees. This status extended only to their official activities, however, and not to transactions of a personal nature [Hevia Bolaño, 1619, B.2, C.8, para. 9].

Where a bookkeeper was employed, the discrepancy that resulted between ownership and authorship of a record did not affect the application of probative requirements. In such cases the presumption was automatic that the book's contents accurately reflected the "will and consent" [Hevia Bolaño, 1619, B.2, C.8, para. 3] of the owner or principal. Presumptive evidence alone constituted sufficient support for this conclusion and made other indications of the owner's real intentions, such as a witness' testimony, superfluous. The only action necessary to preserve the assumption intact was that the bookkeeper retain the orignial record in his possession and send only copies to principal, partners and other parties with legitimate interests. Earlier, Salvador de Solórzano [1590, C.XVII, ff. 30v-31r] in his treatise *Libro de caxa y manual de cuentas* stipulated that in addition the account had to "pass through one hand" — have one recorder only — and that this individual possess considerable skill in the art of bookkeeping. In the Genoese civil court, *la Rote,* the discovery of more than one hand in the journal was considered sufficient grounds for rejecting the book [Jouanique, 1984, p. 340].

The general theory of evidence as applied to accounts was expounded, first, by Del Castillo and later by both Muñoz de Escobar and Hevia Bolaño. Based on Roman law, royal law, and the analyses of previous scholars, it appears to have constituted the majority opinion among legists. Naturally, there were dissenting views. According to Muñoz de Escobar [1646, C.XIII, para. 31], some jurists believed that questions of proof should be left entirely to the arbitration of a judge, who would make his own decision based on the verisimilitude of the accounts, the reputation for honesty of their author, and the materiality of the amounts. Others argued that mercantile accounts in particular merited the same degree of belief whether they spoke for or against the financial interests of their author. In some areas of Europe such treatment was the custom; Muñoz de Escobar [1646, C.XI, para. 14] explained that where this practice was common, it was as an accommodation to "commercial utility" even though contravening the fine points of the law. In Genoa, mercantile accounts were routinely accepted as evidence when they compromised the interests of their author, but the civil court displayed less consistency in its opinions when account books were introduced in support of their owners [Jouanique, 1984, p. 343].

It should be noted that the legists quoted by Muñoz de Escobar were concerned with the evidential requirements derived from royal law and administered in royal courts. Spanish merchants as litigants also had access to special commercial courts, the *Consulados de Mar* [Smith, 1940, pp. 18-33]. According to Muñoz de Escobar [1646, C.XI, para. 14], the standards of evidence applied to mercantile account books by the consuls, or judges, of these bodies were less circumscribed by legal niceties than those employed in the royal courts. Consular justice relied instead on the more straightforward criterion of "good and equity" as a basis of judgment, intending thereby to facilitate the settlement of commercial disputes and commercial dealings in general.

Notwithstanding the impression conveyed by Muñoz de Escobar, the royal law was not totally devoid of consideration for commercial utility. In terms of evidence, for example, it made the ledger of a trading partnership *(societas)* complete proof regarding matters between the partners, an arrangement calculated to smooth commercial operations [Muñoz de Escobar, 1646, C.XII, para. 1].

CONCLUSION

This paper has examined the evidential capacity of accounting records in the jurisprudence of early modern Spain. Several early examples of Hispanic legal literature have comprised the principal sources.

A number of findings have emerged from this study. Principal among them are:

(1) legal requirements greatly influenced accounting forms and procedure during this period;
(2) Castilian jurisprudence encompassed a theory and standards of evidence to guide the use of accounting records as evidential matter;
(3) this theory distinguished between the use of accounts as supporting and confirming evidence, and also supplied standards of form.

In addition to these particular findings, the significance of the present work to accounting history in general is twofold. First, this study should serve to encourage further research in two relatively neglected areas of the discipline — Spanish accounting history and the history of accounting and law. It also suggests that in preindustrial society probative and other legal requirements may have been as influential as the needs of business decision making in determining the form, content and treatment of accounting records.

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Introduction to *A Special Centennial Section* Spring 1987

Editor's Note

The American Institute of CPAs (AICPA) celebrates its 100th Anniversary in New York City in September. The May 1987 issue of the *Journal of Accountancy,* especially edited by Professor James Don Edwards, the University of Georgia, contained a series of articles by prominent AICPA members on a spectrum of issues relating to the past as a perspective for the future. Members of the Academy also contributed short essays on particular episodes in a feature coordinated by Professor Edward N. Coffman, Virginia Commonwealth University.

Professors Edwards and Coffman have each prepared a special synoptic essay on these materials for the benefit of the academic history community represented by the Academy. It is hoped that these digests will be useful also for introductory course materials and to acquaint others with the history and prospects of the American CPA profession.

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The American Institute of Certified Public Accountants: A Century of Progress and Commitment to the Accountancy Profession

THE AICPA: A PROFESSIONAL INSTITUTION IN A DYNAMIC SOCIETY

The American Association of Public Accountants was formed in 1887 as a new era in American history was dawning. In this new society, science, technology and business often merged in developing new techniques to tap the nation's resources more efficiently. The new urban-industrial setting required new forms of expertise and specialized knowledge. With the help of the American Institute of CPAs and its predecessors, public accounting came to fill a unique and essential role in American society.

The AICPA's contributions in developing public accountancy are enormous. Raising the quality of accounting practice has always been essential to the AICPA's purpose. To achieve this goal the Institute has had to maintain a delicate balance between flexiblility and standardization — flexibility to allow improvements in accounting methods, and standardization to create stability and public confidence in the accounting profession. Through the three standard-setting boards and its encouragement of research, the Institute has created a body of technical knowledge; by its educational and experience requirements and its Code of Ethics, the AICPA has worked to meet the accounting profession's social responsiblilties.

LEADERS OF THE ACCOUNTING PROFESSION FOURTEEN WHO MADE A DIFFERENCE

In the article the author commemorates the contributions of 14 leaders who have bettered the profession over the first century of American accounting. Of these 14, four men are highlighted: Robert H. Montgomery, George O. May, William A. Paton and Carman G. Blough.

Robert H. Montgomery was a primary figure in the development of the Institute at critical points in its history. His many accomplishments include buying a state society's journal and renaming it the *Journal of Accountancy*, and serving as president of the Association from 1912-1914 and of the Institute during the 1930s.

George O. May was indispensable in raising the standards of accounting and auditing practice during the 1930s. His incisive, perceptive commentaries on the issues of the day contributed to the rise of the accounting profession in American society.

William A. Paton was a pioneer in the field of accounting theory. His contributions include founding *The Accounting Review* and expanding the influence of the American Accounting Association.

Carman Blough, the Securities and Exchange Commission's first chief accountant worked to encourage the accountancy profession to establish "substantial authoritative support" as the conceptual basis for a body of knowledge. He also served as president of the American Accounting Association, was a member of the Committee on Accounting Procedure and became the Institute's first full-time director of research.

The other ten leaders discussed are Andrew Barr, Samuel J. Broad, John L. Carey, Paul Grady, Eric L. Kohler, A. C. Littleton, Weldon Powell, Leonard Spacek, Charles E. Sprague and William W. Werntz.

ETHICS

Throughout the 100-year existence of the American Institute of Certified Public Accountants, one of the most important concerns of the Institute has been to maintain its professionalism through the establishment of high ethical standards. The present Code of Professional Ethics is the result of the accounting profession's response to itself, its clients, regulatory bodies, and financial statement users over the past century.

Four areas in particular have been the subject of great controversy within the profession: independence, advertising and solicitation, commissions, and contingent fees. All four were dealt with in the early days of the AICPA, and all four are dealt with in the recently issued Report of the Special Committee on Standards of Professional Conduct for Certified Public Accountants. The article discusses the developments associated with each of the four areas over the 100-year history of the AICPA.

As the Institute enters its second century of existence, we should take pride in the fact that the accounting profession is as

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concerned with maintaining high professional standards today as it was 100 years ago, when the first public accounting association in the United States was formed.

THE DEVELOPMENT OF STANDARDS

Goethe once referred to double-entry accounting as "one of the finest inventions of the human spirit." Throughout the history of accountancy in America, accountants have developed accounting and auditing standards to make this "finest invention" play as useful a role in society as possible. The article discusses the role of accounting in the early days of American industrialization, the ensuing demand for authoritative standards and the recent development of accounting and auditing standards.

The early development of American industry from 1887-1903 was a period in which the auditing function gained acceptance and importance. The first auditor's certificate for U.S. Steel in 1903 was a turning point in financial reporting, but the next 35 years were a relatively stagnant period for the development of effective accounting and auditing standards. Beginning in 1938, however, with the establishment of the Committee on Accounting Procedure, the accounting profession began to take advantage of the standard-setting authority granted by the SEC. The Accounting Principles Board and Financial Accounting Standards Board have since taken over the role of the committee in setting generally accepted accounting principles. As for auditing standards, the Committee on Auditing Procedure was set up by the Institute in 1939 in response to the McKesson and Robbins scandal. AudSEC and ASB have since succeeded the committee as promulgators of GAAS.

CORPORATE FINANCIAL REPORTING AT THE TURN OF THE CENTURY

The turn of the century was an important period in the development of accounting thought and practice, especially in auditing. It was a time of growth for the accounting profession because the accounting firms that would eventually comprise the Big 8 were formed and states were beginning to pass CPA laws. It also was the era of the "Big Trust," and companies such as American Telephone & Telegraph, Du Pont, General Electric, U.S. Steel and Westinghouse were on the rise.

The big corporations were criticized for their poor or nonexistent financial reporting practices as accountants pushed for better disclosure and widespread independent auditing. An academic publication quoted the Bible, John 3:19, "Men loved darkness rather than light, for their deeds were evil." Under pressure from investors, the public and the accounting profession, corporations gradually came to accept annual independent audits and began to publish their financial statements in stockholders' reports.

The article shows the progress that was made during the period by excerpts from auditors' reports and financial statements from the turn of the century.

THE ROLE OF THE CPA IN TAX PRACTICE

Since the inception of the income tax in the United States the accounting profession has played an important role in the development and interpretation of the income tax laws. Accountants' involvement in income taxation came about due to the nature of the tax: In order to tax income, income must be defined; because one goal of financial accounting is to determine income, the role of the accounting profession seems obvious in retrospect.

As income tax laws became increasingly complex, tax accountants' knowledge became more and more important to corporations and capital-intensive taxpayers. Today, especially with the enactment of the Internal Revenue Code of 1986, the tax laws are too complex to be comprehended by the general public. The expertise of tax accountants is needed to help clients understand and minimize their tax liability.

Tax practice is divided into three segments: public accounting, private or corporate accounting, and government practice. Each segment performs a different role in providing a liaison between taxpayers and the income tax laws.

The income tax has become an intrinsic part of American society. In addition, it has become an intrinsic part of the accounting profession. A significant portion of almost all accounting firms is devoted to tax practice. With the enactment of the Tax Reform Act of 1986, the importance of tax accountants will inevitably increase over the next few years.

AUDIT TECHNOLOGY: A HERITAGE AND PROMISE

Audit technology is the "toolkit," with which auditors perform their audit tasks. Many of the tools in the toolkit, such as basic auditing concepts and many auditing procedures, are abstract. The article discusses the technology of independent audits of financial statements.

"Uniform Accounting," published in 1917, compiled the audit procedures of the day. In the publication the concept of reliance on controls is discussed to distinguish the audits of large versus small or medium-sized businesses.

After the McKesson & Robbins case the Institute issued *Extensions of Auditing Procedures,* which made internal control evaluation mandatory and required the observation of physical inventory and confirmation of receivables.

In the recent years, statistical audit sampling has evolved into an accepted audit tool and the computer has become an essential auditing aid, especially with the current development of expert systems.

As for the future the authors envision a world in which users of financial statements create their own financial reports by access to company databases. The primary focus for an audit would be control risk assessment because users couldn't obtain reliable reports without adequate controls over the database.

THE SCOPE OF CPA SERVICES

The scope of services performed by CPAs includes accounting and auditing, management advisory services and taxation. These diverse areas of specialization have evolved over the past century in response to the growing needs of society. Prior to the Civil War the services needed from accountants were not as varied as those that came about during the period of industrialization. As railroads, steel mills and manufacturing companies emerged, the calculations needed to prepare financial statements became very complex. Accountants were needed for more than simply bookkeeping tasks.

The passage of the corporate and personal income tax laws in the early 1900s provided substantial opportunities for CPAs to develop an additional valuable service — taxation. The next set of laws beneficial to the accounting profession was passed in the 1930s. Attest services were now required to be performed on publicly held companies. In addition, the rush of work and shortage of personnel during World War II allowed CPAs to apply their skills and expand their involvement into new areas of consulting. As a result, management services grew rapidly in the 1950s.

With the addition of consulting services the issue of independence became a subject of increasing discussion. The securities laws required independence, and a controversy arose over whether there would be a conflict of interest if a CPA performed the attest function and provided consulting services. The profession is continually reviewing ways to maintain independence. All personnel in a CPA firm are subject to the same independence requirements when providing service to publicly held companies, regardless of their particular specializations. Therefore, the profession should be presented as a unified set of services rather than split into three distinct areas of specialization. To continue to develop the CPA's role as an independent information professional the following initiatives are being emphasized:

1. Continued emphasis on the attest function independence as the cornerstone of the profession.
2. Demonstration of how the skills developed in the performance of nonattest services complement a firm's attest skills and improve the quality of its auditing.
3. Organization of practice units across functional lines. (Integrate the personnel in auditing, taxation and management advisory services.)
4. Changes in the education and testing of future CPAs. Accounting and information systems should be taught more as complementing curricula.

CONTINUING PROFESSIONAL EDUCATION 1887-1987

One of the most important developments in the history of the AICPA is the continuing professional education program. Prior to World War II, very few formal programs of continuing education existed. In 1958 $50,000 was appropriated to start the continuing education project, now known as Continuing Professional Education. The project started with less than 2,000 participants and is now a $17 million operation serving 200,000 participants annually.

During the early years of the program, it was decided that the Professional Development Division would prepare the instructor/participant manuals and promotional brochures; and the states would engage the discussion leader, promote the program, arrange for the presentation site and take care of the other administrative details. A portion of the participant fee was given to the state society and called a "co-sponsorship" fee. Although there was some competitive tension between the state societies and the Professional Development Division, the number of programs and enrollment rose rapidly.

Continuing education was completely voluntary until Marvin L. Stone, 1967-68 President of the AICPA, urged the states to require continuing education. The Iowa State Board of Accountancy was the first state to adopt Stone's suggestion and to date

48 of the 54 CPA licensing jurisdictions have a requirement for continuing education. It is hoped that by the year 2000 all AICPA members will be required to participate in the education programs.

THE CPA IN INDUSTRY AND BUSINESS

For the first time, AICPA members in industry and other nonpractice segments outnumber those in public practice. CPAs in industry play a vital role in American business. Many large businesses are electing CPAs as chairmen, presidents and chief executive officers. The excellent opportunities available in business are attracting college graduates directly to business rather than to public accounting. Therefore, it is very important that the AICPA address the issues facing CPAs in business and industry, and encourage industry CPAs' participation in the Institute.

The AICPA should monitor the work performed by CPAs in industry. Companies hiring CPAs may alleviate some of the litigation problems facing CPAs in public practice. The trend has been for the public to hold auditors responsible for failure to detect problems. However, if qualified CPAs in industry were to prepare financial statements with the AICPA insisting on technical proficiency and adherence to the Institute's Code of Ethics (except for independence), it's possible that many court cases could be avoided.

The Institute has recognized the impact of the growing number of members who are industry CPAs. About half of the AICPA committees now have a member from industry. Also, the Institute has made great strides in adding continuing professional education courses that are oriented toward industry.

CPAs in industry and business have become very important to the accounting profession. Participation by both public and nonpublic accountants in the Institute will enhance the profession and, therefore, serve the public interest.

FEDERAL FINANCIAL MANAGEMENT

The American colonies borrowed their financial administration policies from Great Britain. From the principles of Magna Carta, the colonists guarded against any individual having sole power over public funds. In 1789, Alexander Hamilton, the first secretary of the Treasury, was the creator of America's early financial management systems. An ardent believer in strong central control, Hamilton's system was one of elaborate checks and balances that eliminated almost all fraud; however, the system wasn't very efficient. Moreover, in addition to being inefficient, Hamilton's system was so complex that even congressmen were unable to understand it.

Hamilton's system continued to be used until the end of World War II when Lindsay Warren, the comptroller general, decided to decentralize government accounting. The General Accounting Office (GAO) set financial system standards and then audited the system — not the transactions. It was during this period that the GAO and the accounting profession developed a positive relationship, and there followed great numbers of CPAs who accepted important federal positions. The next major change in federal management was the decision by Congress to allow public accounting firms to perform audits of governmental functions.

Although the decentralized structure was essential in the 1940s and 1950s it seems to be the source of many of the government's problems today. The system is incredibly complex and doesn't meet the needs of society. A few problems with the present federal financial management system are:

1. Lack of cost information.
2. Lack of reliable information on major weapon systems.
3. Inadequate disclosure of costs and liabilities.
4. Unstructured planning for capital investment.
5. Antiquated systems.

In 1983 the GAO formed a task force to study the problems facing the federal government. The task force is being helped by two public accounting firms, and it is hoped that a new structure of federal financial management will be established.

THE SEARCH FOR ACCOUNTING EDUCATION'S IDENTITY

Over 100 years ago the accounting profession set a goal of creating a professional school of accountancy, using schools of medicine and law as models. In 1892 a professional accounting school was actually started, but was unsuccessful and lasted only two years. The efforts to found a professional school were not in vain, however, as they led to state laws establishing the designation of "certified public accountant." To further progress the profession, it was necessary that professional accountants and educators be certified by a professional school of accountancy or, at the very least, pursue a mandatory postgraduate accounting program.

Since the 1950s the AICPA has advocated a postgraduate accounting education as a requirement to become a member of the Institute. Unfortunately though, there has been little support for this goal from state societies and state boards of accountancy.

In addition, academic accountants haven't met the call to provide a more professional curriculum. Educators seem to be more concerned with meeting research standards in order to obtain promotion and tenure. Nor has the public accounting profession encouraged a postgraduate program, as is evidenced by its recruiting patterns.

To develop a more professional identity for accounting education, the following recommendations have been suggested:

1. Establish programs for integrating accounting educators into the professional activities of the AICPA and the state societies.
2. Place greater emphasis on additional liberal arts and business education to provide a better foundation for the professional accountants of tomorrow.
3. Encourage an independent organization to prepare an in-depth study of accounting education to provide an objective view of the current status of accounting education and how it must evolve to support the accounting profession of the future.

WOMEN IN ACCOUNTING

Although the large number of women in accounting is a recent development, women have been a part of the profession since its inception in the United States. For example, recordkeeping was considered an acceptable occupation for women throughout the 17th and 18th centuries. On December 27, 1899, Christine Ross became the first woman to earn the designation of "CPA". By 1910 a total of ten women had received their certificates.

During the 1920s only a few women were studying accounting, as the field was considered a man's profession. The women entering the profession were doing so only with the smaller firms. By the 1950s, most public accounting firms still wouldn't hire women because they weren't considered career-minded or suitable for travel. However, a few women who graduated with high marks in accounting were able to break down the barriers and enter the large firms. With the 1960s came legislation favorable to women; however, it wasn't until the 1970s that the passage of the affirmative action laws had a significant impact on women entering the field of accounting.

Today the accounting profession is working to change the false perceptions of women and to develop more flexible ways to a "career path". Several of the large accounting firms have begun to implement policies (such as four-day work weeks and flextime) that are more conducive to women who wish to stay on the partnership track while raising families. The AICPA recognizes the lack of upward mobility for women and is now studying ways to improve the problem. The challenge of the woman CPA is to provide the leadership necessary to ensure the stability of the profession and meet the opportunities of the changing business world.

THE LITIGATION BOOM

The recent rise in the level of litigation in this country is causing great concern among professionals. Since 1960 the number of federal civil actions filed annually has increased five times. Those hit hardest by this legal trend are the "repeat players" in the system. (Repeat players are companies that deal with a large number of people over a long period of time, such as public accounting firms.)

Accountants are now suffering through the same kind of litigation trends as doctors. The public, which has long expected the medical profession to be infallible, is now expecting accountants to provide infallible audit reports. In the past the public has relied on accountants' reputations for integrity, independence and scrutiny. Along the way, the public has transformed the meaning of "accountant" into a "guarantor of safety." Accountants are now expected to insure that no risk is passed on to the investing public. It is no surprise, then, that accountants have found themselves in the courtroom.

There are three classes of claims facing the accountant in the courts:

1. The wrong accounting principle was applied.
2. Management and the accountant conspired to deceive investors/creditors.
3. "Someone should have told me." (Something that someone thought was important wasn't disclosed.)

The third classification is the real trouble area for accountants. In these cases, accounting firms tend to settle out of court because they have serious doubts over what juries might think is important.

There is a major concern that increased litigation will drive up the cost of an audit. The higher cost may cause the accountants' services to be less accessible to clients, hinder accounting innovation and chill porfessional judgment. Accountants must become more involved in providing the public with a realistic notion of what audits involve and of what accountants can realistically be expected to do. The courts and the public must be convinced that society is not well served when accounting firms must pass the costs of litigation on to their clients.

THE PROFESSION — 2000 AND BEYOND

There are three major studies that are under consideration in our 100th year. The study and implementation of these items will carry the accounting profession into the 21st century. The studies are: the AICPA mission statement, the Anderson Committee recommendations, and the Treadway Commission.

The mission of the AICPA is to act on behalf of its members and to provide the necessary support to insure that CPAs serve the public interest in performance, quality, and professional service. The means for achieving this mission are licensing and certification, professional competence, standards of professional conduct, and monitoring practice. Educational programs unite CPAs from all segments of practice and assist members in understanding the economic, political, and technological environment in which they practice.

Secondly, the Anderson Committee has made recommendations in three important areas: 1) Code of professional ethics which introduces senior technological recommendations and performance standards into the code. 2) Programs for monitoring practice and improving compliance with performance standards. Here the committee has recommended a program to monitor practice, improve quality and to reduce the incidence of substandard work. The basis for implementing this recommendation is a quality review program. 3) Recommendation of the Anderson Committee relating to educational requirements. The linkage of higher educational requirements is seen in this recommendation of 150 hours post-baccalaureate requirement. The early leaders of our profession who emphasize collegiate education, the Andersons, the Haskins, the Sells and the Montgomerys established roots in both education and the practicing profession and they might very well smile on this new forward thrust in accounting education.

The third area, the Treadway Commission will make recommendations regarding auditing standards, detecting fraud, the auditor's role and responsibility, quality assurance programs, independence and the auditing committee, and other leaders' professional requirements to maintain the integrity of the roll of auditor in our society.

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A Synopsis of Essays on Historical Accounting Topics Published in the Centennial Issue of the Journal of Accountancy

In late 1985, members of the Academy of Accounting Historians were invited by Dr. James Don Edwards (University of Georgia) to participate in the centennial celebration of the American Institute of Certified Public Accountants in 1987 by submitting essays on historical accounting topics for possible publication in a centennial issue of the *Journal of Accountancy* to be edited by Dr. Edwards. In response to the invitation, a memorandum was mailed in December 1985, to all individual members of the Academy asking that they submit for possible publication in the centennial issue, essays on historical accounting events in the United States within the last 100 years that have had an impact on the accounting profession. The 600 word essays were received and anonymously reviewed by a committee composed of Academy members Edward N. Coffman, Gary J. Previts, and Richard G. Vangermeersch.

Due to the limited space devoted to these essays in the special issue of the *Journal of Accountancy*, only a small number of the many fine essays submitted were published. The following paragraphs contain a brief synopsis of each essay published in the centennial issue of the Journal.

"McKesson & Robbins" by Andrew Barr (Formerly Chief Accountant, SEC) and Irving J. Galpeer (Formerly Assistant Regional Administrator, NYRO, SEC).

The Securities and Exchange Commission case of McKesson & Robbins involving fraudulent disclosure of nonexistent assets and fictitious sales in the company's 1937 certified statements had significant impact on the public accounting profession. The adverse publicity resulting from the case shocked the accounting profession as it was the first time that the practices of the profession were subject to significant public and governmental disclosure, comment, and criticism. The profession would no longer continue to enjoy what then was relative obscurity in the public print. The McKesson & Robbins case resulted in expanding, standardizing, and initiating changes in auditing procedures including the confirmation of receivables, physical inspection of inventories, more intensive review of systems of internal checks and controls, emphasis of responsibility of auditors to public stockholders, and representation in the certificate concerning the scope of the audit work.

"The Payne-Aldrich Tariff Act of 1909" by Harold P. Roth (University of Tennessee).

In 1909, four years before the Sixteenth Amendment to the Constitution was ratified, Congress enacted the Payne-Aldrich Tarriff Act which was also called the Corporation Tax Act by accountants because the Act provided for an annual excise tax on the net income of a corporation. The Act created concerns for accountants in the areas of constitutionality and compliance. Two major compliance issues were the computation of net income and the depreciation deduction.

In 1911, the Supreme Court held that the Act was constitutional because the tax was as an excise tax on the privilige of doing business rather than a direct tax. The issue of calculating a tax on net income based on income received and expenses paid was resolved when the Commissioner of Internal Revenue issued regulations for complying with the Act. The depreciation deduction was an issue because many corporations had ignored it in the past. The Act also provided accountants opportunities in tax planning as many businesses changed from the corporate organization form to nontaxable partnerships or associations.

As the first income tax law to be held constitutional, the Payne-Aldrich Tariff Act provided accountants opportunities in the areas of tax compliance and tax planning. These opportunities were further expanded in 1913 with the ratification of the Sixteenth Amendment and thus form a major part of the profession today.

"Government Oversight — 1917: The Shape of Things to Come" by James J. Tucker, III (Rutgers University).

One of the earliest interventions of government into the practice of auditing and financial reporting occurred in 1917, when the Federal Reserve Board (FRB) issued the bulletin "Uniform Accounts." The document was initiated because the Federal Trade Commission (FTC) was concerned with the lack of uniformity and as a result enlisted the aid of the American Institute of Accountants (AIA) to help correct the problem. The joint efforts of the AIA, FTC, and FRB resulted in the publication of "Uniform Accounts."

"Uniform Accounts" was primarily concerned with "Uniformity as to the extent of verification" of accounts, i.e., the audit process. A step-by-step approach to auditing each balance sheet account was presented and a standard report-opinion was recommended. With the assistance of the AIA, the bulletin was revised and reissued in 1929 by the FRB as "Verification of Financial Statements." By 1929, the usage of the document had become so wide spread that it was referred to as the "accountant's bible." In 1936, the AIA revised and published the bulletin as "Examination of Financial Statements by Independent Public Accountants."

This early government effort was significant because of its impact on the practice of accounting and auditing and because of the working relationship that developed between the accounting profession and regulatory agencies.

"The First CPA Review Manual" by David R. Campbell (Case Western Reserve University).

Less than a year after the first CPA Examination, offered in Buffalo and New York City on December 15 and 16, 1896, the first CPA review manual, entitled *The American Accountants' Manual* (1897) was published by Frank Broaker, assisted by Richard M. Chapman. Broaker published the manual because it was felt that the general areas covered on the first examination would most likely form the nucleus of knowledge expected of future candidates. He also intended the manual to provide a focus for the academic preparation of those entering the profession.

The first of the two sections in the manual consisted of a reproduction of the 1896 CPA Examination questions and a discussion of the solutions. The second section was designed to provide academic preparation for those entering the profession and included commentaries on such subjects as balance sheets, statement of affairs, and scope of accountancy. In 1915, a second edition of the manual was published containing, in large part, the same information appearing in the first edition.

"Development of a Professional Code of Ethics" by Ashton C. Bishop (James Madison University) and Rasoul H. Tondkar (Virginia Commonwealth University).

This essay traces the evolution of the professional code of ethics for the accounting profession. The American Association of

Public Accountants first adopted ethical rules in 1905. The Association's 1906 bylaws, under the heading "Miscellaneous" contained two ethical provisions; a "Professional Ethics" heading was included in the 1907 bylaws and three additional rules were added. Despite interest in establishing a meaningful code, the profession was not successful because the Association was not in a strong enough position to make and enforce rules. Association policies were controlled by delegates from state societies who guarded states' rights; discipline was generally imposed by state societies and was ineffective.

In 1916, the Association was reorganized and renamed the American Institute of Accountants (AIA) and was given the authority by the membership to adopt and enforce rules of ethics. In 1917, the AIA adopted its first code of ethics containing basically the same rules in the 1906 bylaws and six additions. Since 1917, a number of changes have been made to the original code. In 1973, a conceptual foundation from which rules of conduct should flow was included in the code. Currently under consideration are changes to the Code of Ethics based on the recommendations of the AICPA's Special Committee on Standards of Professional Conduct that was established in 1983.

"The 'Other' Public Accounting Organizations" by Alfred R. Roberts (Georgia State University).

Since 1878, the American Institute of Certified Public Accountants (AICPA), under several different names, has been recognized as *a* national accounting organization. However, twice during the first quarter of this century the AICPA's status as *the* national organization representing the public accounting profession was seriously challenged.

The first challenge came in 1902 with the formation of the Federation of Societies of Public Accountants in the U.S.A. (Federation). The Federation was formed because even though the then American Association of Public Accountants (AAPA) was national in theory, in practice it was basically a New York City association. The Federation merged into the AAPA in 1905. The second challenge came in 1921 with the formation of the American Society of Certified Public Accountants (Society). The Society was formed because the AIA [AAPA's name changed to Institute of Accountants in the U.S.A. in 1916 and later modified to American Institute of Accountants (AIA)] was perceived to be in competition with the CPA certificate and was an eastern organization interested only in the problems of the national firms. Pressure mounted over the years to merge the two organizations;

however, it was not until 1936 that the Society was merged into the AIA. In 1957, the name of the American Institute of Accountants was changed by the insertion of the words "Certified Public."

"The Evolution and Current Status of Peer Review" by John B. Sperry, Edward C. Spede, and Donald W. Hicks (Virginia Commonwealth University).

Peer review is an integral part, if not the focal point, of the profession's self-regulation process, particularly, vis-a-vis the Securities and Exchange Commission. In response to critical review of its integrity and independence by the public and Congress during the 1960s and 1970s, the accounting profession undertook several measures to restore public credibility. For example, the American Institute of Certified Public Accountants (AICPA) established a practice review program in 1962 to uncover substandard practice and reporting and in 1974 it published *SAS No. 4* "Quality Control Considerations for a Firm of Independent Auditors."

However, criticism of the accounting profession's performance continued. In response to criticism in the 1976 Senate report of the Metcalf Committee, The AICPA created the Division of CPA Firms consisting of the SEC Practice Section and the Private Companies Section. This provided the AICPA a structure to regulate firms, with the foundation of this self-regulation being peer review. Peer review recognizes the firm, not the individual, as the practicing entity. To provide assurance that member firms possess and comply with a quality control system, they must undergo a review, performed by practicing CPAs, at least every three years. Included among the recommendations of the AICPA's Special Committee on Standards of Professional Conduct established in 1983 is the recommendation that all members in practice participate in a quality-review program.

"Who Should Formulate Accounting Principles?" by William D. Cooper and Ida B. Robinson (North Carolina A & T State University).

In the summer of 1937, the five Commissioners of the Securities and Exchange Commission (SEC) debated whether the SEC or the private sector should develop accounting principles. The three to two vote of the Commissioners in favor of the private sector developing accounting principles, had implications for the accounting profession for years to come. The personal philosophies of the Commissioners and the then Chief Accountant of the SEC, Carman G. Blough, concerning the development of accounting principles are discussed. Commissioners at that time were: William O. Douglas; Robert Healy; James Landis, Chairman; George C. Mathews; and J. D. Ross.

"From *Bercu to Sperry* — Significant Legal Landmarks in the Development of Tax Practice" by John C. Gardner (University of Wisconsin — LaCrosse) and G. A. Swanson (Tennessee Tech University).

Formal federal tax practice by accountants began in 1884 when the U.S. Congress provided that the Secretary of the Treasury may prescribe rules for recognizing agents, attorneys, and other persons representing claimants. The Internal Revenue Service (IRS) subsequently outlined standards for admittance and practice with reference to accountants, enrolled agents, and attorneys. Despite this federal provision, beginning in the 1940s legal suits were brought in several states to restrict the type of tax services that CPAs could offer clients. In 1948, the *Bercu* case sought an injunction against an accountant for giving tax advice to a client even though the accountant was not preparing the client's tax return or engaging in other traditional accounting work. The judge issued an injunction against the accountant for the practice of law by a non-lawyer; however, the judge implied that it was legal for an accountant to represent his client before the IRS even though the types of services the accountant could provide were not clearly delineated.

More suits were filed in efforts to sort out the rights and limitations of accountants and attorneys related to tax practice. In 1951, the National Conference of Lawyers and Certified Public Accountants negotiated and signed the *Statement of Principles Relating to Practice in the Field of Federal Income Taxation* to help delineate the responsibilities of each group in the tax area and recognize certain common areas of tax practice. From 1951 to 1963 the professional status of the CPA tax practice was progressively clarified and enhanced. The 1963 U.S. Supreme Court decision in *Sperry v. Florida* probably definitively established the right of CPAs to practice before the IRS in any fashion stipulated by the Treasury Department.

"A Turning Point in Tax History" by Tonya K. Flesher (University of Mississippi).

The 1934 *Gregory* tax case is discussed as having dramatically changed the course of tax practice. The case involved a reorganization solely for tax purposes in which Mrs. Gregory was allowed to receive appreciated property from her wholly-owned corporation without it being taxed as a dividend. The Board of Tax Appeals held for Mrs. Gregory because she had literally complied with the reorganization statutes; however, the Second Circuit Court of Appeals, in an opinion authored by Judge Learned Hand, rejected the literal interpretation and reversed the lower court ruling. Hand held that the statute presupposed a continuation of business and this intent was absent here; the unwritten requirements of the law had not been met. Hand looked at the intent of Congress and applied a business purpose test. This was the first time that a judge presented the business purpose test and the opinion that a literal interpretation of the law would not always prevail; Hand's views were adopted by the Supreme Court in upholding the ruling in this case.

The *Gregory* case established that mere compliance with the form of the law is not sufficient since there must also be strict adherence with the substance of the law. The principles of the case have withstood the test of time and remain a foundation of tax law which tax practitioners must always consider in structuring tax plans.

"Foundation of the National Municipal League" by Richard K. Fleischman (John Carroll University).

The National Municipal League (NML) was organized in New York City in 1894, when the municipal reform movement, which was to be one of the lasting achievements of the Progressive Era in American history (1893-1917), was in its merest infancy. At that time, a few state and local organizations existed; however, a capstone national organization was needed. The NML provided the necessary leadership and by 1900 it had 120 affiliate organizations and 600 others in correspondence. The NML worked strenuously toward the goal of uniform municipal accounting through its Committee on Uniform Accounting Methods (1900-1905) which was comprised of some of the leading accountants and academicians of the day, including Edward M. Hartwell, Chairman; Charles W. Haskins, Elijah W. Sells, William M. Lybrand, and Frederick A. Cleveland. The reaction to the Committee's recommendations were gratifying in that by 1904, the financial statements of eighty cities bore the stamp of the Committee's work.

It was through the NML and its Committee on Uniform Accounting Methods that accountants made a meaningful and lasting contribution to the Progressive movement. A solid basis was laid for the later articulation of standards for responsible municipal accounting.

1986 Accounting Hall of Fame Induction

Robert N. Anthony

CITATION

Presented by: Robert M. Trueblood Professor Yuji Ijiri
Carnegie-Mellon University

Written by: Professor Thomas J. Burns
The Ohio State University

Born into a close family that might have been painted by a Rockwell, a family directly descended from those who came over on the Mayflower, he is a private person-possibly because he skipped several grades while his brothers did not, although close to him in age.

He is remembered as a boy not so much for playing the saxaphone or even as the owner of a $20 Model-T who could change drivers at full throttle, but as a boy scout who developed a lifelong passion for mountain climbing and skiing, and as an avid reader of books with one forefinger turning the pages and the other scooped peanut butter out of a jar.

A New Englander of steadfast integrity, he is a friend of greatest loyalty to many, including a number of institutions such as his New Hampshire hometown, Waterville Valley, where he has been the town auditor for a decade; the U.S. Defense Department for which he served in two wars, the last one as Comptroller; his alma maters, Colby College and the Harvard Business School, each of which he has served with the utmost distinction for 50 years; the National Association of Accountants for whom he is a guru; and the American Accounting Association for whom he has been president.

A student who has burnished bright the memory of his mentor, Ross Graham Walker, he is now truly memorable to his own students even if he could never remember their names. But how could students forget a teacher who explained the elusive concept of depreciation by burning a candle?

His considerable competency in word processing has led to publications which stem, he claims, from being a poor boy required to take touch typing.

A prolific scholar who has had both success and failure in developing accounting framework, perhaps his greatest success has been in developing an accounting framework for the management of both private and public sector enterprises, which at Harvard is called "control" but to the rest of the world is called "management accounting."

Although he hasn't succeeded yet with the FASB's conceptual framework, don't count him out. After 13 years, he still persists.

As a professor who has helped found a school, the European IMEDE, he is internationally renowned for his stimulating lectures and his popular casebooks. He has led the accounting world in using case methodology in education and in research in managerial accounting, and he is elected as the 46th member of The Accounting Hall of Fame: Robert Newton Anthony.

RESPONSE

by

ROBERT NEWTON ANTHONY

This award caused me to reminisce about my experiences since I started teaching accounting 46 years ago. I won't take long, and I want to make only one point. It seems to me that management accounting has made relatively much more progress than financial accounting in this period, and that progress in financial accounting is urgently needed.

In 1940, there was no text in management accounting. The closest was cost accounting, and most cost accounting texts focused on the collection of costs for the purpose of valuing manufacturing inventories. Now there are many texts. They deal with topics that were not known, or at least not written about, before World War II: the behavioral aspects of accounting, present value, net present value, economic order quantity, linear programming, residual income, recognition of interest as a cost, responsibility centers, profit centers, investment centers, discretionary costs, transfer pricing, make-or-buy, mix variances, product pricing, and to repeat for emphasis, the behavioral aspects.

Financial accounting is another matter. In 1940 there were a number of texts, as well as the landmark monograph by Paton and Littleton. Financial accounting principles today are not a whole lot different from those described in that monograph.

et al.: Accounting Historians Journal, 1987, Vol. 14, no. 1

There have been good developments in a few basic subjects: leases, deferred taxes, pensions, foreign currency. But most of the efforts of the standards-setting bodies have been focused on developing standards for types of transactions that didn't exist in 1940, that is, on fire fighting. We still don't have a standard on depreciation, on inventory costing, on revenue recognition and measurement, on the line between capitalization and expense. We have what is purported to be a conceptual framework, but it is vague, internally inconsistent, and incomplete, and therefore not helpful.

That is the situation in corporate accounting. Non-profit accounting is in even worse shape. In 1978 the FASB accepted responsibility for this area. At that time there were five separate and inconsistent sets of standards for five nonprofit "industries". Today eight years later, FASB has not even issued an Exposure Draft to remedy what is obviously an intolerable situation.

The financial accounting system prescribed for state and local governments dates from the 19th century, and is by far the most antiquated system that any authoritative body currently blesses.

Why has there been much more progress in management accounting than in financial accounting? I think the basic reason is that selling a new idea is much easier in management accounting than in financial accounting.

If a company develops a new idea, as Standare Oil of New Jersey did with profit centers, or duPont did with return on investment, or if an academic writes about an idea that seems promising, companies that decide that the idea will help management will adopt it. The ideas must of course be sold, but the number of influential people in the company who must be sold is small.

Obtaining acceptance of a new idea in financial accounting is also a selling job, but a much more difficult one. The companies who prepare financial statement in general don't want to change what they are doing, and their auditors tend to support them. Most of the financial analysts and lending officers, who are the principal users of financial statements, don't understand accounting well enough to be comfortable about analyzing proposed changes.

In many professions, academics are a main force for change. But this isn't so in accounting. The American Accounting Association is the only accounting organization that lacks a committee which is authorized to speak for the Association. The rationale is that individual members should make known their individual views. But very few academics write to the FASB or the GASB or testify at its hearings. They are welcome to do so, and the standards boards do pay attention to individual views. There are 10,000 accounting professors. If even one percent of them responded to an Exposure Draft, the number would about equal that of the responses on most issues.

One easy way of getting ideas for a response is to assign it as a student project. In any event, I think the academic community should be much more active in improving financial accounting than it has been.

So there is a thought for the day. And with it, again I thank all who were involved in my selection.

EDITORIAL

The new editorial team of the Journal suggests that the following research guidelines be considered in a submitted manuscript.

1. Manuscripts should clearly specify the research issue, problem and/or hypothesis being addressed, an explanation of the derivation of the issue and a plan to address these items.
2. Authors should develop a statement about the method employed in the research, including a full indication of the extent and the manner in which the methodology is used and the degree to which the research plan is achieved by means of the method. Such a statement should include a specification of the original materials or data collected or employed and a statement of the rationale employed in selecting the source material(s). A description of the evidential data used in conducting the evaluation which support the reported findings should be clearly stated.
3. Authors are encouraged to consider contemporary implications of their research and to develop such when appropriate.
4. Manuscripts which involve general periods of time, such as a study over a decade or longer, should develop explanations which are sensitive to changes in technology, education, political, economic and similar environmental factors.
5. Authors are expected to address and evaluate the 'probable' influences related to the issue or hypothesis being examined as consistent with an interpretation of the method, data and plan described.
6. A conclusion/interpretation of the research should be stated so as to be understood as being consistent with the objective, plan and data used in the study. Such findings should be clearly 'tied back' to the problem specified in the research and emphasize the relevance to contemporary practice, education and/or research and policy issues as appropriate.
7. Implications of the study for future research should be stated.
8. Purely descriptive papers continue to be of importance but must be carefully and completely developed so that they are dealing with original materials as principal sources.

GJP

Accounting Historians Journal, Vol. 14 [1987], Iss. 1, Art. 17

REVIEWS

BARBARA D. MERINO, EDITOR
North Texas State University

REVIEW ESSAY

HISTORICAL METHODS — POST MODERNIST ANALYSIS

LaCapra, Dominick. —*History & Criticism.* Ithaca, NY: Cornell University Press, 1985, 145pp., $17.50.

Porter, Dale L. *The Emergence of the Past – A Theory of Historical Explanation.* Chicago, University of Chicago Press, 1981, 205pp., $19.00

Reviewed By
Barbara D. Merino
North Texas State University

These two books deal with very different subject matters but they have a common theme, namely that contemporary knowledge should not be modeled on the early 20th century's understanding of certain pieces of 19th century and especially 17th century physics. In short, they reject the deductive covering law model as an appropriate method for historical research. LaCapra examines social and intellectual history and proposes to join the traditional documentary model of history with rhetorical analysis to create a broader, interactive understanding of historical discourse. Porter's thesis is that modern scientific knowledge has changed conceptions of time and events, making historical narrative better able to generate valid explanations than the Newtonian mechanistic paradigm that has had a lasting impact on historical research. Porter contends that "the positivist" deductive law approach is based on a conception of science that was already becoming outmoded when Carl Hempel challenged historians to follow it [p. 63] and that modern science now demands that perception replace the static causal concept of a "fictional physical force" found in deductive law models [p. 69]. Porter advocates use of a "genetic approach to historical methodology," based on the process philosophy of Whitehead and extending the processive model of Hexter.

LaCapra and Porter also agree that historical methodology has not reached a paradigmatic state, although LaCapra suggests that the documentary model of history has almost achieved paradigmatic status. The documentary model reduces the historian's task to a search for "hard" facts, sifting through sources with the greatest repute given to those who find a new "fact." The model suggests there is an implicit hierarchy of sources and creates a fetish with archival research. The historical imagination is limited to plausibly filling in the gaps; and LaCapra laments the fact that historians seem to have forgotten, if they ever knew, that a new reading and interpretation of the facts might be more important and worthwile [p. 21]. Accounting historians should take heed of LaCapra's reminder that "it is not only the discovery of new material but the rereading of the old that generates new insights" into the evolution of the ideas in any discipline.

Porter's message is a little more draconic; he characterizes history as being at a pre-paradigmatic stage. A discipline where there is "a gap between doctrines of explanation (which may be at war among themselves) and the work done by researchers . . . (whose) works survive uneasily on the remnants of outworn models whose assumptions are either forgotten or constantly questioned . . . (and) hostility generated by the lack of a generally accepted framework" [p. 25]. Although we have had several recent works on accounting paradigms, it might be worthwhile to take a step back and ask if such analyses may not have been premature. It also might be useful to heed Porter's advice to look at areas which have been disregarded in recent years as a starting point for finding an adequate paradigm.

While space prohibits a complete discussion of both these books, accounting historians should find both interesting alternatives to the traditional documentary model. For those interested in the history of ideas, LaCapra suggests that we conduct a conversational exchange with the past and that the performative use of language makes a difference in our relation to the object of study. Perhaps, his most important message for accountants is that "rhetorical considerations underscore the political involvement of all interpretation; even the seemingly disinterested description of analysis of facts . . . " [p. 37]. For LaCapra, objectivity and relativity are false options; the rhetorical dimension of historiography, he believes, may prevent us from imposing current views on the past and ignoring disconcerting voices not in light with our current beliefs.

He elaborates on this problem in his discussion of the phenomenon of transference which creates the temptation to assert full control over the object of study. he points out that "transference may be blindest when disciplinary or subdisciplinary boundaries and protocols of research become the foundation for a self-enclosed frame of reference that induces methodological scaptgoating — the exclusion or reduction — of phenomena and perspectives that cannot be fully adjusted to it" [p. 75]. The question one asks when completing LaCapra's book is would it not be beneficial if accounting historians subjected our literature to such an analysis? While most accounting historians may not be familiar with rhetoric, the LaCapra book, read along with McCloskey's *Rhetoric of Economics* [1985], should highlight how valuable such an approach might be in enhancing understanding of our discipline.

Porter advocates a genetic approach to historical methodology as an appropriate means of coming to grips with the dual nature of historical understanding. He suggests that both sequential and analytical analyses are necessary for complete explanations and attempts to show the two methods are not antithetical but complementary. Porter rejects determinism; he adopts Scriven's concept of normic hypotheses to develop an analytic framework that (1) serves as a guide for elements of continuity and change, (2) identifies a subject's characteristic pattern of behavior as one of the initial conditions of an event and (3) identifies patterns of behavior that seem strange to us because of differences in culture and culture values [p. 37]. In short, Porter reminds us that history is not only a record of what happened (Carr) but, also of what people failed to do (Bloch).

According to Porter, historians do not have an explanatory scheme "in which events are clearly defined according to their temporal structure and constituent elements" [p. 85], therefore, a new model is needed to identify the elements that make up the final form of any event. These elements are patterns of experience brought into focus by individuals, groups, institutions and ideas involved in the events organization. Thus, the historian's task is to identify these patterns at the various levels of abstraction, identify important contrasts and conflicts, and show how the event resolves those tensions and contrasts. Porter uses the Reform Act of 1832 to illustrate the application of his process model; since accounting researchers may be more familiar with the Securities Acts (1933-34), this review will use that legislation to illustrate Porter's model.

Porter suggests that the analysis of the emergence of an event proceed according to a hierarchy of abstraction. The event, itself, is the lowest level of abstraction; an idea that may seem strange to anyone used to conducting sequential analysis. But, Porter's logic is that the event is a synthesis of the more abstract elements that make up its constituent parts. The event is defined with respect to duration, geographic dimensions and its future consequences. While examination of duration and geographic dimensions of an event probably seems routine to most accounting historians, it is not as clear that we pay sufficient attention to the consequences of an event when conducting our analyses. Retrodiction, explaining an event's emergence from its past, is a critical step in the historical process. For example, Joseph Kennedy, not a New Deal reformer, was named the first SEC commissioner. Legislation did not result in passage of a federal incorporation law nor did it result in standard setting being removed from the private sector. Examination of subsequent events is a critical step that enables the historian to identify key elements in the antecedent period that need closer examination.

After defining the duration, geographic dimensions, and significance of an event, the analysis then can proceed to different levels of abstraction. The hierarchy, in ascending order, would include — individuals, groups, institutions, concepts, and forces. (pp, 89ff) Examination of individual perceptions, i.e., Berle, Morgan and Roosevelt, usually highlight significant differences and often lead to vivid contrasts between what actually happened and what might have been. The analysis would then proceed to groups (accountants, bankers), institutions (Congress, NYSE), concepts (corporate democracy, shareholders' rights), forces (political, economic, social, technology). This hierarchical examination, combined with traditional sequential analysis, enhances understanding by highlighting contrasts between the event's actual configuration and its unrealized potentialities. While we probably do not have a sufficient mass of accounting history to conduct the type of critical analyses suggested by LaCapra and Porter, their approaches do offer interesting new methodologies that could be employed by accounting historians to produce significantly different historical interpretations of how our discipline has evolved.

BOOK REVIEWS:

Yamey, B. S., Edey, H. C. and Thomson, H. W. *Accounting in England and Scotland 1543-1800* (London: Sweet and Maxwell, 1963. Reprint edition, New York: Garland Publishing, 1982 244pp., $25.00)

Reviewed by
Patti A. Mills
Indiana State University

One factor retarding the integration of accounting history into the accounting curriculum at both the undergraduate and graduate levels is the short supply of appropriate texts and other materials conveniently packaged for classroom use. Ideally, such material would incorporate background information on the topic or period under consideration, reproductions or transcriptions of original source documents, commentary on the sources, and suggestions for further reading or archival work. Although not the stated intention of its authors Yamey, Edey and Thomson, this welcome reprint from Garland Publishing could be used as such a text in addition to serving its ostensible purpose as a foundation for further research. The book consists of four major parts:

I. Extracts from books on accounting dating from the sixteenth to the early nineteenth centuries.
II. An essay that surveys books on accounting in English from the same period.
III. An essay on the practice of double-entry accounting in Britain in the seventeenth and eighteenth centuries.
IV. A bibliography of books on accounting in English from the period 1543-1800.

It is the rare combination of primary, secondary and bibliographic source material between the same two covers that makes this book so potentially valuable for both teaching and research. In addition to a balanced combination of materials, the text itself is well prepared. The authors chose the extracts thoughtfully to demonstrate the variety of topics considered in the early accounting treatises. Careful editing has enhanced the readability of the passages while preserving the original sense of the language. The essays are also well crafted. They represent in a suitably distilled form Yamey's work on early accounting thought and practice in Britain, and their inclusion helps to set the primary source material in context.

The book is illustrated by a series of 16 plates which reproduce actual pages of early journals, ledgers and accounting treatises. While the inclusion of this type of illustration is highly desirable, the authors would have increased the value of the material by providing transcriptions of the plates and some specific comment on their content.

From a purely research perspective, the book when originally published in 1963 added nothing new to Yamey's already prodigious body of research findings on early British accounting history. It did, however, present a portion of them in a conveniently summarized form which, with its excellent bibliography, continues to make the work a starting point for further research in the area.

For those scholars wishing to develop a research interest in early-modern or British accounting history, the book is best read in conjunction with James Ole Winjum's *The Role of Accounting in the Economic Development of England: 1500-1750* (Urbana, Illinois: Center for International Education and Research in Accounting, 1972). It is particularly important to compare their discussion of the relationship between theory and practice. Like Yamey, Edey and Thomason, one of Winjum's major contributions is to survey the most significant early works on accounting in English and to relate them to accounting practice during the period. Based on their examination of account books from the second half of the seventeenth century and later, Yamey *et. al.* concluded that "the early treatises are a realible mirror of contemporary practice" (p. vii). While Winjum agrees with this finding for the late seventeenth century and beyond, he demonstrates convincingly, using earlier accounting records, that literature was in advance of practice in England until the eighteenth century.

Carey, John L., *Professional Ethics of Public Accounting* (New York: American Institute of Accountants, 1946 Reprint edition, New York: Arno Press, 1980, 136 pp., $12.00).

Reviewed by
Robert Bricker
Case Western Reserve University

The accounting profession's current set of ethical standards has evolved out of earlier versions of those standards. In "Professional Ethics of Public Accountants," John L. Carey outlined and discussed the existing ethical standards of public accounting of the late 1940s period. Originally published by the American Institute Of Accountants, the book provided a restatement and explanation of AIA standards, although a disclaimer of AIA influence was offered by Carey regarding his related discussions. Perhaps this was included because, despite Carey's claim that the book only described then existing standards, it in fact provided an interesting apology for Institute positions in some controversial areas, including contingent fees, advertising, client solicitation, and competitive bidding.

The book is divided into four parts: an Introduction, and sections entitled "The Interest Of The Public," "The Interest Of The Client," and "The Interest Of The Profession." Each section is further divided into individual chapters dealing with particular issues and standards. Frequently, each chapter begins with an excerpt from the related standard. Interpretations are also cited in numerous instances as are pronouncements of the Securities and Exchange Commission and the American Bar Association.

Several discussions of ethical issues and their related standards are particularly interesting. In the "Independence" chapter, Carey cited a Journal of Accountancy editorial that distinguished between independence as a state of mind and independence as an objective standard. In the "Contingent Fees" chapter, Carey noted the acceptability of contingent fees in tax practice. The issue of management advisory services was alluded to in chapters on incompatible occupations and simultaneous occupations. Association with forecasts was prohibited, as was advertising, solicitation of engaged businesses, competitive bidding, and offers to employees of other accountants.

As mentioned, Carey offered apologies for several accepted positions. Perhaps the most creative was the use of the ABA position on contingent fees, which Carey used, in conjunction with the elimination of the independence restriction, as the basis for the acceptability of contingent fees in tax practice. The essence of this argument was that contingent fees enabled those otherwise unable to afford an accountant the opportunity to do so. As another example, association with forecasts was not permitted, based on the argument that it was not possible to express an opinion on financial statements whose underlying transactions had not yet occured.

Carey expressed a distaste for commercialism and a concern for professional dignity, and used these positions as the basis for a defense of the prohibitions against advertising, solicitation of engaged businesses as clients, and competitive bidding. And for the agressive young practitioner, he offered some palliative advice on establishing a practice; build a reputation. With respect to advertising, Carey argued that advertising was, anyway, not effective for accounting firms and actually in the interest of the large, well established firms.

In summary, "Professional Ethics of Public Accounting" offers a well organized treatment of late-1940s ethical standards which provides an interesting comparison with current ethical standards. Carey's frequent citation of AIA rules and interpretations and SEC and ABA pronouncements provides a valuable basis for the subsequent discussions. These often illuminate the logic of the positions taken although some of Carey's defenses appear more as rationalizations than as convictions. Equally important, however, is the recognition of the importance of this book as a formal attempt to educate accounting practitioners in the ethical standards of their profession.

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CAPSULE COMMENTS

United States of America Before the Securities and Exchange Commission in the *Matter of McKesson & Robbins, Inc. – Testimony of Expert Witnesses.* (Washington D. C., GPO, 1939; Reprint ed., New York: Garland Publishing Co., 1982 638 pp., $60.00).

This book contains a wealth of material on auditing practice prior to McKesson Robbins. Twelve expert accounting witnesses — Samuel Broad, Charles O. Wellington, Victor H. Stempf, William H. Bell, Norman J. Lenhart, John K. Mathieson, Henry A. Horne, Charles B. Couchman, Hiram T. Scovill, Joseph J. Klein, George D. Bailey, and Charles W. Jones — provide their views of the state of auditing practice in the 1930s. The questioning of each witness is structured according to the outline found in *Examination of Financial Statements* (1936). If one wanted to examine and compare opinions and practices with respect to specific topics such as internal check and control, cash, receivables, etc., a very useful table of contents in the front of this volume provides page citations for each witnesses testimony on each topic.

While most of the testimony is consistent, i.e., the 1936 pamphlet had not been meant to do more than convey the best practice of the time and to educate the public as to the limitations of audits, some of the witnesses are more candid. For example, Lenhart (p. 224) said he thought the "primary purpose of preparing and publishing this bulletin was to forestall publication of some similar bulletin by some other body, governmental or otherwise." Testimony shows that differences in practice existed among the various types of firms and the biographical data, especially with respect to the education and training of the expert witnesses, make this volume a useful addition to any historian's library.

Fourth International Congress – 1933. (London, Gee & Co., 1933; Reprint ed., New York: Garland Publishing Co., 1982 638 pp., $80.00).

The 1933 Congress, held in London, reflected the concerns of accountants and others with the economic turmoil of the day.

Considerable attention is given to international finance and to accounting for exchange fluctuations, which should make the volume of interest to anyone interested in the evolution of accounting for foreign exchange. Considerable space also was given to the problem of developing principles for treatment of holding companies and subsidiaries, an important issue of the period. A survey article, "Capitalist Combinations in Industry in Light of Present Day Needs," by C. H. Nelson provides some interesting historical data on the consolidation of industry.

The volume also contains three articles expressing British, Continental and American views toward the auditor's resOonsibility in relation to balance sheets and profit and loss accounts. Although Robert Montgomery noted, his article would have been different had he anticipated the responsibilities conferred upon accountants by the Securities Act of 1933. The discussions of each of the various topics by accountants from a number of countries tend to be very interesting and enlightening since they highlight some major differences in accounting practice that existed at this time.

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DOCTORAL RESEARCH

MAUREEN H. BERRY, EDITOR
University of Illinois

S. Paul Garner: A Study of Selected Contributions to the Accounting Profession (The University of Arkansas, 1986) by Robert Michael Garner.

A tall, soft-spoken man, endowed with the courtesy and personal warmth characteristic of a Southern heritage, has in a quiet way become one of the most influential and respected educators of our time. The author of this study of Samuel Paul Garner, only coincidentally bearing the same surname as his subject, has made a valient and commendable effort to sift out from a very rich data base some of Garner's main achievements during more than half a century of professional and public service. What emerges is a vivid image of Dean Garner as representing something rare in the increasingly segmented and specialized world of accountancy: a generalist who has used his special skills to perceive anomalies, assess their significance for the accounting domain and its environment, and influence the initiation of new ideas from an integrated systems perspective. This talent for synthesis draws on two of Dean Garner's main strengths. One has to do with his considerable interpersonal abilities and enthusiastic and vigorous support of causes he champions. The other, his technical expertise in such diverse areas of accounting as auditing, financial, international, managerial, and public sector. This breadth of knowledge is threaded through with a deep sense of history, providing the linkages essential for broad appreciation of situations meriting attention.

As rationale for the dissertation, the author relies on the well accepted premise that much can be learned about the evolution of ideas and ways of doing things by recognizing the roles played by key individuals in certain transformation processes. This assumption is fully justified in the light of what we learn of Garner as a person and a major path-breaker. Another positive feature of this study, regrettably lacking in much historical investigation, is its disclosure of methodology. We are given enough information to be able to construct a model, such as the one shown below,[1] of the underlying research framework.

[1]Adapted from John W. Buckley *et al, Research Methodology & Business Decisions,* A monograph prepared for the National Association of Accountants and The Society of Industrial Accountants of Canada, 1975, p. 15.

RESEARCH MODE	STRATEGY (Nature of data and acquisition process)	DOMAIN (Data source and environment)	TECHNIQUES: FORMAL (Objective)	TECHNIQUES: INFORMAL (Subjective)
Inductive (theory generating)	Opinion	Individual	———	Interviews and correspondence
Deductive (theory testing)	Archival	Primary	Content Analysis	Scanning
		Secondary	Sampling	Scanning

In generating and testing theories, the author used two main strategies. One was to solicit opinions from individuals, either the subject himself or those personally acquainted with him or with particular items of interest, using informal techniques which included interviews, telephone conversations, or correspondence. The other research strategy was archival, drawing from primary and secondary data sources and employing both formal and informal techniques. Content analysis and scanning were used in examining original documents, such as unpublished papers and correspondence, lecture notes, and minutes of meetings. Sampling and scanning techniques were applied to secondary sources. These consisted of published materials and other documents which provided the historical and environmental setting and helped to identify and illuminate the events which Dean Garner was most influential in shaping.

Four chapters of the dissertation describe in turn Dean Garner's main contributions to accounting and business education, the American Accounting Association and the American Association of Collegiate Schools of Business, the American Institute of Certified Public Accountants and other organizations connected with the accounting profession, and the international world of accounting, business, and business education. First, however, there is an introductory section in which we learn about Garner's early life in Yadkinville, North Carolina, where he rode his pony to his first school in a converted log cabin. After graduating from high school in 1927, he worked in his father's taxi business in Winston-Salem for a year to help finance his education at Duke University. He graduated in economics in 1932 and began his life-long love of travel by investing his savings in a guided tour of Europe. He then returned to Duke and earned a Master of Arts degree in economics in May 1934. In the following August he married Ruth Bailey.

The Garners spent two years at Mississippi A & M in Starkville, then moved to the University of Texas in Austin in the summer of 1937 when Garner entered the doctoral program. He earned the PhD degree in 1940 and his dissertation was eventually published in 1954 as *Evolution of Cost Accounting to 1925*. It was reprinted in 1976. The Garners set up their permanent home in Tuscaloosa in 1939 when Garner was appointed as associate professor at the University of Alabama. His promotion to full professor came in 1943, he became Head of the Department of Accounting in 1949, and in 1954 he was named Dean of the School of Commerce and Business Administration. He became Dean Emeritus in 1971.

Grouping Dean Garner's broad array of achievements into four rather discrete spheres of influence works well as an organizing strategy. In the area of accounting and business education, publications are prominent so considerable attention is given to books and articles which have appeared in about fifty domestic and foreign journals. His internationalization of the program at Alabama, position on the five-year professional accounting degree, and his involvement in the founding and promoting of the Academy of Accounting Historians are also featured. Social concerns also were brought forward in describing Garner's involvement with two organizations: the National Council for Small Business Management Development and the Lamar Society. Throught the first of these two, he has provided advice on a variety of topics to many small firms in the state of Alabama and throughout the southeast region of the country. The second is a group which tries to deal with various concerns in Southern society by facilitating dialogue, particularly with respect to improving education, across a broad range of beliefs.

Dean Garner has served in the American Accounting Association as a member of the executive committee, as vice president, and in 1951 as president. One of his most notable achievements as president was establishing and encouraging regional sections or groups within the association's national structure. Another of his pioneering efforts, when chairman of the International Accounting Committee in 1966, was the issuance of a pamphlet which dealt with the internationalization of the accounting curriculum. In the following year, 1966/1967, he was chairman of the Committee on International Relations which looked into ways of expanding a program for the exchange of professors and research scholars. These are just three selected examples of ideas which have become institutionalized. Of significant help in gaining wider acceptance of innovations was Garner's long tenure in the

American Association of Collegiate Schools of Business which he presided over in 1964. The plans he developed during that year for improving, unifying, and coordinating business education in the United States eventually became major elements of the Association's activities.

Garner also influenced educational programs through his various consulting engagements. One of them involved providing advice to the General Accounting Office on training programs to implement audit techniques congruent with the new concepts of operational auditing in government. This experience made him more aware of the need to strengthen and reorient accounting education and he urged these ideas in a letter sent nationwide to business school deans. He also served as an advisor on graduate education to the U.S. Office of Education from 1965 to 1970.

Dean Garner's international interests cut across each section of the dissertation. Perhaps his most signal effort is the program in International Business Administration (IBA) which he started at the University of Alabama in 1954. A main goal of this program is to help students prepare themselves to serve the best interests of the world community. Faculty members can take advantage of opportunities to serve as exchange professors and foreign educators have come in to teach at Alabama. Garner's commitment to international business was recognized by President Nixon who commissioned him as a member of the Regional Export-Import Council from 1969-1974. National recognition was also accorded by the U.S. Department of State which sent Dean Garner on a four-month special assignment to twenty-three countries to collect information about university education for careers in business.

Lasting contributions to the public accounting profession came with Garner's first assignment to committee work with the American Institute of Certified Public Accountants in 1953. The particular committee assignment was to design educational courses to keep members aware of current events and thereby improve professional practice. Dean Garner designed and taught the first course in what is now known as continuing professional education in 1954. From 1956 to 1958, he served on the Certified Public Accountant Examination committee which looked into a number of issues connected with the purpose, content, style, and length of the examination as well as the knowledge level contemplated. Because of the gearing of the accounting curricula in many business schools towards CPA examination preparation, this was a critically important committee assignment for Garner as a business school dean.

Most recently, Dean Garner has been devoting much of his energy to the International Association for Accounting Education and Research which was founded in 1984 with Garner as its first president. This Association which is independent of the American Accounting Association, but shares many of the goals of the AAA's international section, is supporting the Japanese Accounting Association in sponsoring the 1987 World Congress on accounting education in Kyoto. Some of us who received programs from Dean Garner, encouraging us to look at this opportunity to participate in the Congress as an investment, thought about his vitality and powers of persuasion as we mailed off the forms to Japan. Where will he lead us next?

Announcement

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A Journal of Accounting and Business Studies

VOLUME 23 NUMBER 1 MARCH 1987

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The individuals listed below served as consulting referees for the Spring 1987 volume of *The Journal.* The listing includes individuals whose reviews were received by November 1, 1986.

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