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Antecedents of modern earnings management research: Income smoothing in literature, 1954-1965

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ANTECEDENTS OF MODERN EARNINGS MANAGEMENT RESEARCH: INCOME SMOOTHING IN LITERATURE, 1954-1965

Abstract: An earlier article reviewed income smoothing in literature published up through 1953. This article extends that review through 1965, the year preceding the publication of the first modern empirical earnings management studies. The focus of this article is on the 1964 Gordon article which was the stimulus for those early income smoothing studies that began to appear in 1966 and marked the beginning of modern empiricism in accounting literature. Critical reading of Gordon's article suggests that he drew upon both earlier accounting and economics literature in formulating his theory of income smoothing. Review of the relevant earlier literature demonstrates that the primary elements of Gordon's article were present in both the earlier accounting and economics literature. Gordon's contribution was a more disciplined formulation of a theory of accounting choice than was present in the literature of this period and that theory included a series of seemingly straightforward, testable hypotheses.

INTRODUCTION

A continuing series of studies that tested for income smoothing represents the beginning of modern earnings management research that have appeared in accounting literature since 1966. The first studies generally referred to Gordon [1964] or Hepworth [1953] and Gordon and Hepworth. Only one of the early studies contained a reference earlier than Hepworth. None contained any references dated between Hepworth and Gordon. There was, however, frequent consideration of income smoothing behavior in literature prior to the Hepworth article and in the period bounded by the Hepworth and Gordon articles. The income smoothing literature prior to the Hepworth article was reviewed recently [Buckmaster, 1992]. This paper extends the earlier review up through 1965, the year preceding the appearance of the first modern income smoothing articles. Much of the paper is directed toward examining the degree to

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which Gordon's work should be considered seminal work. The 1964 Gordon article was particularly important because it motivated most of the early modern income smoothing studies that followed in the next few years.[1]

The documentation in the early modern income smoothing literature suggests that Hepworth and Gordon were unique in their consideration of income smoothing prior to 1966. That is not the case. The two important elements that provide the foundation for Gordon's article appeared in other publications during 1954-1964 period. This paper documents the existence of Gordon's foundation elements, the smoothing quality of an accounting method as a criterion for accounting choice and stockholder satisfaction as managers' motivation for smoothing, in earlier accounting literature. The significance of Gordon's 1964 article is attributed to the form that he used to state his theory of manager motivation to smooth income and to the timing of the appearance of the article rather than to the originality of his position. The 1964 article provides a more forceful and explicit treatment of ideas that were presented in his 1960 *Accounting Review* article. When both articles are considered, we find his ideas can be traced to the traditional economics, the newly emerging managerial (behavioral) theories of the firm, and earlier accounting literature. Gordon's combination of these ideas into a statement of a theory of accounting choice makes his 1964 article historically significant. The relevant literature on managerial theories of the firm as well as some accounting income smoothing references not relevant to the discussion of Gordon's contribution are also identified and briefly discussed.

The remainder of this paper is composed of four short sections and a longer section on the 1964 Gordon paper and re-

[1]Eleven accounting income smoothing studies were published in the 1966-1970 period. Drake and Dopuch [1966] only cited Gordon, Horwitz, and Myers [1966]. Schiff only cited Monson and Downs [1965], but the Monson and Downs paper was published a year after Gordon. Gordon, Horwitz, and Myers [1966] did not cite any managerialists, but did cite Miller's "lost" income smoothing study [1944]. Archibald [1967] cited Hepworth [1953] and Gordon [1964]. Gagnon [1967] and Copeland [1968] cited several managerialists, Hepworth, and Gordon, but Gagnon's statements about management preferences for unusually large income suggest a poor understanding of the managerialist literature. Copeland and Licastro [1968], Cushing [1969], and White [1970] only cited Gordon. Bird's [1969] sole reference was to Archibald [1967]. Dascher and Malcom [1970] referred to Gordon and Monson and Downs. Thus, the influence of Gordon's 1964 paper is generally direct or traceable through his 1966 paper with Horwitz and Myers.

lated literature. The first section of the paper describes the process used to identify references to income smoothing behavior. The second section describes the relevant portions of the earlier tradition of income smoothing in the accounting literature and the Hepworth [1953] and Gordon [1964] articles in order to provide context for the discussion of smoothing literature published from 1953 through 1965. The third section examines the Gordon [1964] article and related literature. The next section is devoted to recognition of additional references to smoothing in accounting literature that are not relevant to earlier sections. The concluding discussion summarizes the paper and contains a brief discussion of the lack of citation of the early smoothing literature in modern earnings management work.

IDENTIFICATION OF REFERENCES TO SMOOTHING BEHAVIOR

Identification of smoothing references in the economics literature was relatively straightforward. Several years after the first influx of accounting income smoothing studies, some accounting researchers [Smith, 1976, Kamin and Ronen, 1978; Koch, 1983; Belkhoui and Picur, 1984; Hunt; 1986] began to consider income smoothing within the context of the managerial theories of the firm. References (including post-1965 references) in these economics-based studies in accounting literature were read for statements about income smoothing behavior. Then likely references in the economics literature referred to by the accounting researchers were read for statements about income smoothing behavior.

The search for relevant accounting literature has been much less systematic. As indicated earlier, there is only one reference in the post-1965 accounting income smoothing literature to the pre-1966 accounting literature other than to Hepworth [1953] and Gordon [1964]. I searched the *Accountants Index* for entries for income smoothing, income stabilization, income volatility, income fluctuation, profit smoothing, profit stabilization, and profit volatility for the period, 1950-1965. There were no entries. The accounting entries identified in this paper are the result of both chance and experience. I have been "collecting" references to income smoothing behavior for the past several years and when, in the course of other research, I see a source that might contain a reference to such behavior, I read it. Thus, the search for income smoothing references prior to 1965 has not been systematic and only a portion of the body of literature has been examined in the identification of the references in accounting and business literature. However, it is not unreasonable to assume that the identified references are representative of the total body of references to smoothing during the 1954-1965 period.

THE EARLIER TRADITION TO 1953 AND HEPWORTH

I identified thirty-four works published from 1893 through 1953 which contain some sort of reference to the smoothing properties of an accounting method or to an accounting or business practice used in such a way as to dampen the fluctuations of reported income were identified in my 1992 paper.[2] Several recurring characteristics and changes in context were identified in this group of publications. Those characteristics and changes in context include the change from a balance sheet to an income statement context, flexibility in the capitalize/expense decision, and advocacy of specific accounting methods because they reduce the volatility of the income time-series. This last characteristic is particularly important in the development of Gordon's 1964 paper.

Hepworths' paper was the first obvious publication on income smoothing which probably accounts for the recognition it received in the early tests for smoothing. The primary objective of the Hepworth article was to identify accounting tactics that managers might use to smooth income. He starts with a brief discussion of managers' motivation for smoothing which includes the impact of income volatility on stockholder satisfaction. Then Hepworth lists several smoothing tactics in the main body of his paper.

GORDON [1964]

The overall objective of Gordon's 1960 and 1964 *Accounting Review* articles was to plea for the formulation of testable accounting theories in order to facilitate regulators' choice of accounting methods and the subsequent testing of those theories. The 1964 article, the historically significant article, was com-

[2]Several additional pre-1954 references have been identified since the publication of the earlier review. However, the basic characteristics of the literature suggested in that article are not altered by the discovery of the new references.

posed of three elements, two of which are important. The first element was a demonstration of the failure of ARS Nos. 1 and 3 to provide regulatory guidance for the selection of accounting practices. This reaction is an abbreviated version of his 1960 argument and he uses the newly published ARS No. 1 and 3 to restate his position. The section exists as a lead into the two more important elements of his article.

Gordon moves from the discussion of the failure of traditional normative accounting research as represented by ARS No. 1 and 3 to the main body of the paper and the first important element of the paper. In this section of the paper, Gordon rejects the purpose of accounting as the measurement of wealth and argues instead that the purpose of accounting is the maximization of wealth. From this position, he develops his argument that "the criterion that should be used [by regulators] in choosing among principles is the *minimization of stockholder bias in extrapolating past income to estimate future income*." [Gordon, 1964, p. 26] in order for stockholders to better estimate the value of the firm. Application of the criterion presumably results in a smoother income time series and is equivalent to income smoothing.[3] This proposal was the specific objective of the 1964 article.

Gordon then develops his theory of motivation for income smoothing because of its impact on stockholder satisfaction. His stated reason for this formulation is that "By considering a different but related problem in the choice among accounting principles, it is possible within the space remaining to present a concrete research proposal that illustrates our approach to the choice among accounting principles in greater detail" [Gordon, 1964, p. 261]. This last element is the historically significant contribution of this article.

[3]This position appears to be inconsistent with Gordon's position in a 1953 article in which he promotes a specific price change income model. Price change models can be expected to produce more volatile income time-series than historical cost based models. Several empirical studies in the late sixties and seventies confirmed the expectation of greater volatility [Frank, 1969; Simmons and Gray, 1969; Buckmaster, *et. al.*, 1977]. However, careful reading of Gordon's 1960 article makes it clear that he believed that price change income would produce less volatile income series than historical cost. One reviewer questions this interpretation of Gordon's statement that "minimization of stockholder bias in extrapolating past income to estimate future income." He argues that Gordon did not necessarily have smoother income time series in mind when he proposed the criterion for the selection of accounting methods by regulators.

While the proposal of income smoothing as a criterion for accounting choice by regulators was the specific objective of the 1964 Gordon article, this proposal was, for the most part, ignored in the subsequent empirical literature. His development of the theory of management motivation to smooth income was much tighter than customary in accounting literature of the period. This model proved to be the most influential element of his paper because it provided the stimulus and justification for subsequent empirical tests for income smoothing.

Smoothing as a Criterion for Accounting Choice by Regulators

Advocacy of the smoothing quality of specific accounting methods as a criterion for accounting choice by managers appeared frequently in pre-1954 literature. Joplin [1914] supported the creation of secret reserves to smooth income. Nash [1930] and Polak [1930] advocated flexible depreciation charges as smoothing tactics. Dicksee [1931] suggested the use of reserves for future losses as an appropriate smoothing technique. A number of authors [Warshaw, 1924; Davis, 1937; Nickerson, 1937; Cotter, 1940] promoted base stock inventory methods including LIFO because of the smoothing properties of these cost-flow assumptions.

Johnson [1954] continued the literary tradition of promoting the smoothing quality of an accounting method as a criterion for accounting choice. However, he shifted from the traditional argument directed towards management to a regulatory context. That is, Johnson [1954] was not trying to convince managers to adopt specific accounting methods because of their smoothing quality. Rather he wanted regulators to use the relative smoothing quality of an accounting method as a criterion for the selection of regulatory accounting requirements. He suggested that if national economic policy is to dampen business cycles, then smoothing quality should be a criterion for the acceptance of accounting methods. Gordon's 1960 paper is an embryonic version of his 1964 paper. He discusses and calls for empirical testing of accounting theories as well as mentioning "stabilization of income" as if it were a widely recognized criterion on a par with conservatism. Dickens and Blackburn [1964, p. 314] specified two criteria for accounting policy choice, one of which was, "To provide the best possible basis for the stockholders to project the earnings and financial condition of the corporation," in the same *Accounting Review* issue in which

Gordon published his influential article. Dickens and Blackburn's [1964] analysis translated the criterion into an income smoothing criterion. Consequently, a primary reason for Dickens and Blackburn's [1964, p. 318] rejection of holding gains and losses as an element of income was that, "The inclusion of these holding gains and losses' creates a lever which can produce wide fluctuations in reported income due to relatively minor changes in replacement cost"

The preceding three papers published during the 1954-1965 period as well as the 1964 Gordon article continue a longer tradition of supporting accounting methods because of their smoothing quality. There is, however, a distinct departure from the earlier literature. Earlier work discussed a specific accounting tactic or method within the context of manager choice. The four articles published during the 1954-1964 period discuss accounting method choice within the context of accounting regulation. One gets the impression that there was a group of academics at that time for which a smoothing criterion by regulators was perceived as desirable and appropriate.

Although there appears to be an influential group of academics that supported accounting methods that result in less volatile income time series, smoothing as a criterion for accounting choice was not universally accepted. The preparers of the American Accounting Association's *Accounting and Reporting Standards* [1957, p. 63] reiterated the CAP's [1946, 1947A, 1947B] earlier censure of the "artificial stabilization of the income series through the use of operating reserves." Two articles [Anreder, 1962; *Business Week*, 1963] in the financial press identified the use of pension expense funding to smooth income as an accounting or auditing problem. Zeff and Maxwell [1965] responded vigorously to Dickens and Blackburn's [1964] arguments against reporting holding gains and losses as an element of income. Zeff and Maxwell [1965] argue that there is no justification for a criterion for accounting choice based upon the relative income volatility induced by a method. Also, Hendriksen [1965, p. 274] censured income smoothing. He reasoned:

> smoothing is not a desirable attribute of financial accounting particularly if it is artificial. The goal of smoothing confuses an operational goal of the firm with an accounting goal. If the results of operations are not, in fact, smooth, accounting should not make them appear as if they were.

Stockholder Satisfaction as the Motivator for Income Smoothing

The second significant and most influential element of Gordon's article was his development of a theory of managers' motivation to smooth income in order to enhance stockholder satisfaction. Gordon developed his position in a much more complete and systematic manner than other attempts at accounting theory during that period. This model appears to have been the inspiration for the series of empirical studies that began to appear in 1966.

There are occasional references in accounting literature prior to Gordon's 1964 article that refer to smoothing in order to satisfy stockholders or, similarly, to manipulate security prices. Johnson and Mead [1906] believed that the primary incentive for U.S. railroads to charge large amounts of capital expenditures to expense in periods of high profits was to manipulate securities prices. Warshaw [1924] listed stockholder and creditor satisfaction as secondary incentives for smoothing. Devine [1942] suggested that since the market seemed to discount accounting income time-series in setting market prices, smoother income might result in more stable securities prices.

Even though no accounting references dated from 1954 through 1964 are identified in Gordon or subsequent accounting income smoothing literature that suggest stockholder satisfaction as the smoothing motivator, such references were available to Gordon in the earlier accounting literature. However, several years after accounting income smoothing studies began appearing, Smith [1976, p. 721] asserted that the income smoothing hypothesis was originally derived from economics and the behavioral sciences. Smith appears to have been referring to the managerialist literature since that is the economics literature identified in his literature review and his tests were for differential smoothing behavior by owner controlled and management controlled firms, a central idea of the managerialists.

These managerialist theories were newly emerging in the late fifties and early sixties and the basic ideas for income smoothing were in these theories. Cyert and March [1956] introduced the concept of organizational slack; their discussion of slack implies a smoothing effect around some satisfactory profit goal. Baumol [1959] treated sales maximization as managers' goal rather than the traditionally assumed goal of profit maximization in his theory of oligopolist behavior. He defines the profit goal as that profit that is large enough to make the firm's securities attractive on the market. Anticipated profits in excess of the goal will be used to attempt to increase sales. Baumol provides additional motivations for avoiding excessively high profits: (1) High profits will induce additional competition, and (2) Excessively high temporary profits create unrealistic expectations by stockholders. The effect of Baumol's hypothesized manager behavior is to reduce income time-series volatility. Kayson [1960] examined the structure of firms in the industrial sector and concluded that, in general, the constraints imposed by market forces are loose for large firms and the scope for managerial choice is wide. He suggests that powerful firms use this discretion to seek some level of return without much variation.

Alchion and Kessel [1962, p. 162] relate to smoothing via the argument that, "the cardinal sin [of monopolies] is to be too profitable." Since managers do not have unlimited access to direct pecuniary compensation, they consume excess profits in other welfare enhancing activity. This, of course, has the effect of smoothing the income time series. Cyert and March refined and expanded their earlier position with the development of a behavioral theory of the firm in their 1963 monograph. Their definition of the profit goal was changed to an average of the achieved profits over past periods which is, of course, a smoothed series. Williamson [1963] provided an important chapter for the Cyert and March [1963] monograph with the development of a behavioral model of management decisions for a public utility. An upper limit to acceptable income is dictated by political costs and the lower limit is reported income equal to the minimum profit negotiated by other members of the firm coalition. This, then, is an income smoothing model and Williamson maintains that the model can be generalized so that it is also applicable to unregulated firms.

The preceding discussion demonstrates that there was an adequate tradition in both accounting literature and the managerialist theories to have provided Gordon with the foundation for the development of his income smoothing theory. Gordon's interests were broad and when we examine his 1960 and 1964 articles carefully, we find ideas and concepts drawn from traditional microeconomics, macroeconomics, and managerial accounting as well as financial accounting and managerial theories of the firm.[4] For example, Gordon [1960, pp. 604-605] draws upon macroeconomics through his use of the multiplier - accelerator theory of national income determination as an example of the formulation a testable theory. He hints at income smoothing during this discussion of the model. Later the theories of income smoothing as a regulatory criterion for accounting choice and income smoothing by management are formulated in the same manner in the 1964 article. He uses managerial accounting concepts are used in his discussion of intra-firm income measurement, transfer prices, and standard cost systems [Gordon, 1960, p. 615-617]. He also uses the underlying assumption of traditional theories of the firm when he relies upon the "old fashioned" objective of the maximization of firm wealth as the basis for his formulation of the income smoothing criterion for regulators [Gordon, 1964]. Three rather clear references to important managerialist concepts are his discussion of organizational (budgetary) slack [Gordon, 1960, p. 604], expense preference [Gordon, 1964. p. 255], and the explicit assumption that managers maximize their welfare when making accounting choices [Gordon, 1964, p. 261]. Gordon's reference [1964, p. 262] to the use of hidden reserves to smooth income provides an explicit example of recognition of an old accounting idea. He called upon his broad knowledge of both accounting and economics to construct his income smoothing hypothesis that provided the basis for the earliest surge of modern empirical research in accounting. The hypothesis was a statement of a common idea in earlier accounting and early managerialist literature framed specifically to test a theory of management choice of accounting practice. Again, the form in which the idea is stated is the source of the historical significance of the 1964 Gordon paper. Unlike others in accounting that called for empirical research, Gordon provided a theory , a hypothesis, and a specific, practical approach for testing the hypothesis.

[4]The *Accountants Index* lists five articles authored by Gordon in the 1950-1965 period, yet the *Index of Economic Articles* lists ten of his articles published during that period. There is no duplication in the listings. Also, the University of Delaware holds five of his books, two on accounting and three on economics.

OTHER REFERENCES TO INCOME SMOOTHING

There were several other references to smoothing during the 1954-1964 period that are not relevant to the discussion of the antecedents of modern earnings management literature. These references generally continued the tradition of the pre-1953 literature identified in Buckmaster [1992].

Husband [1954] followed the pattern of other authors after the acceptance of LIFO for tax purposes and objected to LIFO because its only justification was that it smoothed income. Garner [1955] identified the smoothing effect of an inventory cost flow method as one of six considerations guiding accounting choice and, in the style of the period, he uses hypothetical case data to demonstrate that LIFO provides a smoother income time series. Devine [1955] discussed the theory and practice of depreciation during the period. The greater highs and lows of income during prosperity and depression were identified as a problem with valuation at expected present value [Devine, 1955, p. 332]. Retirement reserves in connection with the retirement depreciation method were perceived as nothing more than a smoothing device [Devine, 1955, p. 334]. Interestingly, Devine [1955, p. 349] believed that while depreciation based on revenues is frequently used in a non-systematic way in order to smooth income, orthodox depreciation methods provide just as much opportunity for manipulation. Another Devine essay [1963, p. 134] contained a passage on the differential behavioral impact of good news and bad news. He raised the question of the behavioral impact of a single charge against income versus smoothing bad news. He called for and anticipated the contemporary research on good news/bad news effects on the market. Jacobsen [1963] perceived a trend in the "practice of optimeasurement" which is to defer income and to use methods that maximized expense recognition. Smoothing was discussed in the context that firms practice "optimeasurement" in reasonably profitable years and then the firms change to profit increasing methods in "lean" years. Tax benefits appeared to be the underlying motivation for minimizing income and increasing stock prices the motivation for increasing income in lean years.

Outside of Gordon's 1960 and 1964 articles, Yamey's [1960] essay on the nineteenth century origins of several mid-century accounting practices contained the most substantive discussion of smoothing published from 1954 through 1965. He identified depreciation, hidden reserves, unusual non-recurring items, excessive provision for contingencies, and expensing capital assets as early smoothing tactics in the course of his essay.

CONCLUDING DISCUSSION

Early modern income smoothing studies attribute the origins of income smoothing in accounting literature to either Hepworth [1953] or Gordon [1964]. The Gordon article provided the rationale for early smoothing studies that launched the era of hypothesis testing in modern academic literature. Buckmaster, [1992] documented a long tradition of recognition of income smoothing behavior; this paper documents a continuing recognition of income smoothing in literature in the period between the publication of the Hepworth and Gordon papers. The focus of this paper has been to identify the primary elements of Gordon's 1964 paper in earlier literature. Those elements were present in the earlier literature.

One significant change of the income smoothing literary tradition that occurred in 1954 was that the context of the advocacy articles changed from efforts to convince managers of the merit of a specific method's smoothing properties to advocating or opposing the relative smoothness of accounting choices as a criterion for regulator's decisions. This idea that regulators should select accounting practices that result in the least volatile income time-series was one of the two primary ideas in Gordon's 1964 article.

The other primary and the most significant element of the Gordon article was his income smoothing theory that contained several hypotheses which he maintained could be tested. While some researchers have suggested that Gordon derived the basis of his theory from the newly emerging managerial theories of the firm in economics, Gordon's assumed objective of profit maximization conflicts with the managerialists contention that managers of large modern corporations depart from profit maximizing behavior. Since the idea of smoothing income had appeared occasionally in earlier accounting literature, the earlier accounting literature seems to be a more likely primary source of Gordon's theory than the managerialist theories.

In any event, Gordon did not introduce any new or radical ideas despite the significance of his work for early empirical accounting research. Rather, Gordon's contribution was that he provided a more disciplined formulation of a theory of accounting choice than his contemporaries and that theory included a series of seemingly straightforward, testable hypotheses. Ultimately, significant design problems became apparent; however, the methodological difficulties of testing for income smoothing quickly became apparent.[5]

The contribution of timing to the importance of Gordon's theory cannot be overlooked. Other prominent academics were calling for empirical research [Devine, 1963; Mautz, 1965; Green, 1966] and many of them were pushing the increased number of Ph.D. candidates of the late sixties and early seventies away from traditional normative research. The income smoothing hypothesis provided an opportunity for new accounting researchers to advance their careers and make their reputations. Several took the fullest advantage of the opportunity.

My experience with this paper along with my earlier paper on income smoothing in the pre-1964 literature represents a case study of a situation where there is a long literary history of recognition of a phenomenon that is ignored in modern investigations of that phenomenon. This is consistent with Bricker's [1988] finding that earlier literature (pre-1960) is rarely cited in contemporary literature. Bricker [1988, p. 94] limited his speculation on why early literature is infrequently cited in modern literature to the observation, "accounting academicians moved away from a practice orientation, towards a social science model of research. The pioneering work done during this period and thereafter often provides a year zero for later work, and previous studies are therefore often not considered". This change in literary approach coincided with accounting literature related to income smoothing. Specifically, the questions being examined in the literature changed. Early modern income smoothing researchers were asking "Do companies smooth reported income?" The questions evolved into "To what degree and under what conditions do companies smooth reported income?" in later and contemporary literature. The earlier tradition of merely arguing that smoothing reported income is desir-

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[5]For example, Foster [1986, p. 228] observed: The academic research literature has not been able to provide strong evidence that income smoothing behavior is widespread. However, the problems of research in this area, rather than the limited nature of such behavior could well explain the limited evidence documenting its existence.

able or undesirable or using hypothetical examples to illustrate that a method has smoothing qualities is not crucially linked to the questions being raised in modern income smoothing literature.

There were other literary and environmental characteristics that contributed to the disregard of the pre-modern income smoothing literature. Accounting literature has traditionally been poorly documented and this tradition generally continued even in the academic literature until well into the sixties. Also, income smoothing was a relatively new term in 1966 and a number of terms had been used to refer to smoothing over the years. Finally, the *Accountants Index*, the primary bibliographical tool of the period, is totally inadequate as a "key word" index. Thus, even though the volume of early literature is less than overwhelming in quantity, searching that literature for useful sources is costly. A rational contemporary researcher has little, if any, incentive to investigate pre-1966 literature if the link between early income smoothing literature and modern earnings management literature is representative. Of course, this discussion is only applicable to modern earnings management and accounting choice research. The potential contribution of early publications to contemporary research in other areas of financial accounting or managerial accounting or tax accounting is potentially strong. Systematic studies of pre-1964 literature might contribute to the discovery of old ideas that will now be useful, the prevention of recycling inappropriate ideas, and the identification of neglected areas of contemporary research.

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