

Tracing Intellectual Origins in Accounting¹

Stephen A. Zeff
Rice University

Abstract: This paper undertakes to track the intellectual evolution of four important streams of thought in the American accounting literature, tracing them back to their originating expressions. The four streams are decision usefulness in both management accounting and financial accounting, futurity in financial accounting, the literature on general price-level accounting, and consolidation goodwill in business combinations.

“If you would understand anything, observe its beginning and its development” – Aristotle²

Introduction

The aim of this paper is to take the reader on four journeys to illustrate how one can trace the intellectual origins in accounting.

Tracing intellectual origins should be a staple in our literature, to demonstrate that there may be writings somewhere in the long line of our published research that may help us resolve some of today’s conundrums. It therefore justifies our search of the literature to unearth these writings. It also pays to learn how some early writings may have conveyed meaning in the resolution of later inquiries. We should not look upon our literature as a repository of research results that may be forgotten, solely because they are all in the past. Such research also brings more coherency to the literature.

Zeff (1976, Introduction, 2) has written:

If bits of a conceptual structure can be traced to their earliest (and most cogent) expressions, when they were first treated by other writers in another era, the exercise may yield fresh insights into the logical and evidential underpinning of the conceptual whole.

Geoffrey Whittington writes, “the ultimate motivation of scholarship is to obtain a clearer understanding of the present, by revealing the origins, assumptions and institutional framework which

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² Paraphrased translation from *Politics* I.2 1252a24-6.

gave rise to our current theories and practices, i.e., to enable us to understand the ‘intellectual baggage’ which we have inherited from the past.”³

In tracing the intellectual origins in accounting, Europe has a much better record than the USA. Perhaps this is because Europeans tend to respect and preserve their traditions, while Americans are instead inclined to vaunt what is recent and new. This may be a crude generalization, but I think that it possesses some explanatory appeal.

There is a considerable literature in continental Europe which reviews the evolution of accounting thought, beginning with the founding theorists. Three collections of such essays in English are particularly rich with such studies:

Anthony G. Hopwood and Hein Schreuder, *European Contributions to Accounting Research: Achievements of the Last Decade* (1984)

John Richard Edwards, *Twentieth-Century Accounting Thinkers* (1994)

Yuri Biondi and Stefano Zambon, *Accounting and Business Economics: Insights from National Traditions* (2013)

Collections have also been published in other languages.⁴ The following historical treatise also brims with insight: Richard Mattessich, *Two Hundred Years of Accounting Research* (2008).

These European national traditions of accounting thought emerged and reached maturity during the first half of the twentieth century. But in the second half of the century they gradually faded from their respective literatures as a consequence of the invasion of international, and especially American, thinking and research methodology (Biondi and Zambon 2013, part II).

Beyond these collected works, articles and books have been published that study this evolution of European accounting thought, usually within the intellectual boundaries of particular countries. I am in no position to contribute usefully to this literature, in part because so much has already been done and in part because I am not fluent in the continental languages. I have therefore decided to focus in this paper on the accounting literature in my own country. This choice should be a popular one, because the American accounting literature has captured the worldwide attention of researchers and educators.

In making this choice, I fully acknowledge that it is impossible to regard a country’s literature as if it were wholly self-contained and uninfluenced by writings originating in other countries. This is especially true with the American literature, to which so many accounting authors based in other countries have made important contributions over the decades.

³ Communication from Geoffrey Whittington to the author, dated 3 January 2023.

⁴ See, for example, Bernard Colasse’s 2005 book, *Les Grands Auteurs en Comptabilité*. I am grateful to Kees Camfferman for alerting me to this book.

Attempts to trace historical origins are a highly subjective undertaking. One must endeavor to interconnect lines of thought across the decades, trying to infer cause and effect where possible. Otherwise put, one must identify and connect the dots in the evolution of streams of thought in our literature.⁵ The dots that I connect may not be the ones that other such investigators would connect, but it is important that we engage in a dialogue and thus begin to move closer to a consensus over the origins of contemporary accounting thought and practice. These streams of thought consist of the originating author, intermediaries (or carriers) who transmit the originating author's ideas to authors downstream, and eventually the policy statements or standards that were influenced, directly or indirectly, by the originating author's ideas – or just the most recent believers.⁶

In the course of doing this paper, I have found it of some interest that all of the originating dots involve economists. I will be discussing four streams in the literature, all of which precipitated actions by accounting standard setters. The first of these journeys proposes to identify the origins of the centrality of information for decision-making in both the management accounting and financial accounting literatures. The second focuses on the origins of futurity in financial accounting. The third treats the thread of the evolution of the literature on general price-level accounting. And the fourth, dealing with the recognition of goodwill in consolidated statements, shows how early academic writing influenced the Financial Accounting Standards Board (FASB) to require a novel approach.

Decision Usefulness in Management Accounting and Financial Accounting

The conceptual frameworks (CFs) published by the American, Canadian, British, and Australian standard-setting bodies, plus those of the IASC and the IASB, have all reflected the “decision-usefulness” approach. The proximate historical impulse for this approach originated with the report of the American Institute of Certified Public Accountants’ (AICPA’s) Trueblood Study Group on the Objectives of Financial Statements, issued in 1973 (Solomons 1986, 118; Storey 1990, 1-52 to 1-53). Its thinking was carried forward into the FASB’s CF, and from there into all of the other standard setters’ CFs as well. To what early sources can we trace the “decision-usefulness” approach?

⁵ In his survey of accounting theories in the German- and English-language areas, plus in the Italian literature, during the first half of the twentieth century, Mattessich (2013, 17-22) identified many of the influential US theorists but did not undertake to connect the dots.

⁶⁶ For more on this process of connecting dots, see Himick and Brivot (2018).

Related to the notion of “decision usefulness” in financial reporting is the evolution of cost accounting (or cost bookkeeping) into management accounting in the 1950s and 1960s, a major element of which was the tailoring of cost information to managerial decision-making.

I am going to argue that both of these important developments can be traced to a single source, an economist. It all began in 1923 with the publication of a book, *Studies in the Economics of Overhead Costs*, written by John Maurice Clark (1884-1963), an economist at the University of Chicago.⁷ At the outset of Chapter IX, “Different Costs for Different Purposes: An Illustrative Problem,” Clark wrote:

We may start with the general proposition that the terminology of costs is in a state of much confusion and that it is impossible to solve this confusion by discovering and adopting the one correct usage, because there is no one correct usage, usage being governed by the varying needs of varying business situations and problems. (p. 175)

He then proceeded to work through “a series of different concrete situations” in the life-history of a hypothetical factory “and show in each case what cost means and why” (p. 175). He sought to distinguish between “the variable costs or differential costs involved in particular policies which the concern has the option of following, and the costs which are constant, or unaffected by a given policy” (p. 176). Johnson and Kaplan (1987, 154-155) wrote that “Clark was particularly lucid and insightful in his presentation of the relevance of ‘different costs for different purposes’.”

Earlier in his book, Clark had a go at cost accounting:

Cost accounting is still in a formative stage, though it has already developed a voluminous literature, and its vocabulary gives it at least one of the characteristics of science – that of being inscrutable to the uninitiated. (p. 14)

Johnson and Kaplan (1987, 135) have written, “For all practical purposes, academic accountants writing around 1920 never broached the subject of managerial product costing. Textbooks used in 1920s university accounting courses spoke of cost accounting strictly in terms of inventory costing for financial reporting purposes....” As Taggart (1951) contended, this was little more than cost bookkeeping. The role of cost accounting was chiefly to furnish financial accounting with figures to be inserted in balance sheets and income statements.

⁷ Clark left Chicago in 1926 for Columbia University. He was the son of the noted American economist John Bates Clark. The John Bates Clark Medal is given annually by the American Economic Association to the American economist under the age of 40 who is judged to have made the most significant contribution to economic thought and knowledge. Collier (2019) provides an overview of Clark’s life and laments that his contribution to management accounting has not been sufficiently appreciated by accounting academics.

Clark's argument for tailoring costs to the decisions being made by managers was almost entirely ignored in the accounting literature until 1938.⁸ This was when William J. Vatter (1905-1990), then a research assistant at the University of Chicago and a part-time accounting instructor at nearby DePaul University, at the insistence of the academic adviser to the publisher of a series of accounting textbooks, wrote a 23-page "modernizing" chapter which was appended at the end of a traditional textbook on cost accounting.⁹ Vatter's chapter, entitled "A Re-examination of Cost Accounting from the Managerial Viewpoint," was drawn almost entirely from Clark's Chapter IX; indeed, one of its section headings was "Different Costs for Different Purposes." Following publication of the textbook, a book review appeared in which the reviewer said that Vatter's chapter was "excellent" and that it was "both thought provoking and informative" (Gibson 1938). Vatter's chapter apparently came to the notice of a wide circle of accounting educators.

Vatter, who was convinced by Clark's argument, continued to write in favor of "incremental costing,"¹⁰ and after he obtained his Ph.D. degree in 1946 at Chicago and became a full professor of accounting there the following year, he proceeded to convey his appreciation of Clark's thinking to his doctoral students: Charles T. Horngren, George H. Sorter, George J. Staubus, and David Green, Jr.

Other accounting academics also adopted Clark's thinking at around the same time, and they incorporated his emphasis on incremental, or differential, costs into their textbooks:¹¹

Carl Thomas Devine, *Cost Accounting and Analysis* (1950)

Adolph Matz, Othel J. Curry, and George W. Frank, *Cost Accounting* (1952)

Robert N. Anthony, *Management Accounting: Text and Cases* (1956)

Gordon Shillinglaw, *Cost Accounting: Analysis and Control* (1961)

In their books, Devine cited Clark, and Matz, Curry, and Frank quoted Clark at length. Devine (1985, vol. IV, 174) subsequently wrote, "the best treatment of cost accounting concepts is still (a half-century later) the work of an institutional economist – J. M. Clark." Anthony (1989, 1) has written that he learned about Clark's book during his doctoral studies at Harvard Business School. As will be seen below,

⁸Two notable exceptions were articles in 1928 by C. Rufus Rorem, "Differential Costs," and in 1929 by H. C. Daines, "The Changing Objectives of Accounting," which treated Clark's argument at length. Rorem and Daines were themselves on the University of Chicago's accounting faculty.

⁹ The adviser was Willard J. Graham, an accounting professor at the University of Chicago. The textbook was *Cost Accounting: Principles and Practice*, by John J. W. Neuner (Zeff 2008, 198). Graham wanted accountants to serve management decision-making (Ziegler 1976, 79; Porter and Langenderfer 1985, 4), and he was unhappy that Neuner's book did not address this important role. Graham had obtained an A.M. degree in 1924 in commerce and administration at Chicago and may have studied under Clark.

¹⁰ See Vatter (1945), where he cited Clark.

¹¹ For a discussion and comparison of these books, see Burrows (2013).

Shillinglaw was very much attuned to Clark's formative role. It is thus evident that Clark's book was coming to the attention of accounting academics at more business schools than Chicago's.

The 1950s and early 1960s were a time when major reforms were being directed at education and research in American business schools (Maher 2001; Khurana 2007, 271, 295), arguing, among other things, that "there is need for more fundamental theoretical work, for a better understanding of the interrelationships among the variables with which the business manager must deal, and for better ways of identifying and evaluating the alternatives from which choices must be made" (Gordon and Howell 1959, 384). This climate encouraged a focus on the information suited to managerial decision-making.

At Chicago in the 1940s, Vatter began drafting a 500-page book manuscript, *Managerial Accounting*, based on the lecture notes from his classes. Because he viewed the manuscript more as an experiment for a new approach to the subject than as a proven product, he did not believe it was ready for publication. Yet Horngren (1991, 234) wrote, "accounting professors around the world insisted on using it." At his publisher's urging, Vatter relented, and he made it available in a "preliminary," soft-cover edition in 1950. After it was reprinted 18 times, driven by popular demand, he called a halt in 1962. In the book, Vatter (1950, 508, emphasis in original) avowed that "the costs that are important and relevant to a decision are those which will be *different* when the choice is made one way rather than another." Johnson and Kaplan (1987, 160) have written that, in this book, "Vatter strongly advocated 'different costs for different purposes,' continuing the tradition of his University of Chicago predecessor, J. M. Clark."

Even as an experiment, *Managerial Accounting* did much to change the field. Horngren (1991, 234) wrote, "Every cost accounting or managerial accounting book published in America during the last thirty years shows the influence of *Managerial Accounting*." Staubus (2003, 159) wrote that Vatter's *Managerial Accounting* "was probably the most influential textbook ever published in accounting."

In 1962, Charles Horngren (1926-2011) published the first edition of his textbook, *Cost Accounting: A Managerial Emphasis*, whose major theme, he said in the preface, was "different costs for different purposes" (p. vii). His book, which was dedicated to Vatter and is now in its 17th edition with coauthors, has long been the dominant textbook, worldwide, in management accounting. Beaver and Wolfson (2013, 435) have written the following about Horngren's textbook:

Cost Accounting was a master tome, and it fundamentally transformed managerial accounting, changing the field from a simple description of institutional practice relating to cost accumulation/record keeping to an emphasis on uses of accounting data for decision-making purposes. Every textbook in the field since has followed this paradigm.

Gordon Shillinglaw (1963, 73), wrote as follows about the evolution in thought which Clark's Chapter IX set in motion:

More than forty years' discussion has produced fairly substantial agreement as to what kinds of costs are relevant to short-run decisions. The route pointed out by J. M. Clark [in 1923] has since become a well-traveled road, and has led to near-unanimity of treatment in most textbooks in elementary and cost accounting.

Staubus (2003, 159) has written that Clark's 1923 book, especially its Chapter IX, "continues to be recognized as an early milestone in managerial accounting." Johnson and Kaplan (1987, 154) wrote, "Clark had great insight into many important cost behavior patterns that remain prominently featured in all of today's cost accounting textbooks." Sidney Davidson (1963, 280), in a review article on Clark's 1923 book 40 years after its publication, observed that Vatter's add-on chapter in 1938, Devine's textbook in 1950, and the Shillinglaw and Horngren textbooks in 1961 and 1962, respectively, "have all built on Clark's foundation; management accounting is far the richer for it."¹²

Yet Clark's intellectual influence was not confined to management accounting. His Chapter IX also played a role in shaping financial accounting, and it can be said to have been a base, if not the principal base, of "decision usefulness," which gained currency in the 1960s and 1970s (Zeff 2017). The usefulness of accounting information both to internal decision makers and to external decision makers – that is, investors and creditors, as well as managers – are two sides of the same coin. A committee of accounting theorists, in a major report written for the AAA, suggested that the "strong user-oriented movement in the managerial accounting literature [during the 1950s]...may have served as the stimulus for the initial acceptance of the decision-usefulness objective in external reporting at that time" (Committee on Concepts and Standards for External Financial Reports 1977, 11).¹³

Charles Horngren and George Sorter (1961, 84), acknowledging Clark, argued that "variable costing" (also known as "direct costing") for inventories was acceptable not only for internal reports but also for external reports. They wrote:

Accounting is a tool for decision-making by managers, investors, and all interested parties. Usefulness for decision-making thus becomes the overriding criterion for judging existing financial reports.

¹² Horngren (1971, 3, footnotes omitted) has written: "The management accounting courses of the 1950's were essentially pragmatic managerial economics; the ideas of J. M. Clark, Joel Dean and others were placed in an accounting context."

¹³ The committee member who drafted this section of the report was George Staubus. Goetz and Birnberg (1976, 18) wrote in a similar vein: "The accounting theory, the fundamental principles, for external and internal reporting should...reflect a commonality based on the common core of rational decision-making." Goetz had studied under Vatter at Chicago, and Birnberg read Clark's 1923 book during his doctoral studies at the University of Minnesota. Communication from Birnberg to the author, dated 29 December 2022.

Relevant costs are the only costs that have a bearing on managerial or investment decisions. (p. 86)

Vatter (1957) concurred that “the use of direct costing procedures will, in many cases, yield results more useful to investors as well as to management.” Decision usefulness was thus seen as important for investors as it was for managers.

In his pioneering book, *A Theory of Accounting to Investors*, George Staubus (1926-2014) (1961, 11) postulated that “The purpose of accounting is to provide information which will be of assistance in making economic decisions.” He then proceeded to develop an accounting framework for informing investors of their prospects for future cash receipts. Hence, Horngren, Sorter, and Staubus – all students of Vatter – were in the vanguard of the “decision-usefulness” movement in external reporting. As will be seen, George Sorter played two major roles in bringing decision usefulness into the mainstream of financial reporting.

In the 1960s and 1970s, the decision-usefulness approach emerged in financial accounting because it was believed to be more responsive to the accounting information that different classes of users of external reports were seeking than was the procession of theories proposed from the 1910s into the 1960s in support of one or another “true income” – a single valuation model, usually current cost – that were presumed to possess universal meaning to all users for all uses (Committee on Concepts and Standards for External Financial Reports 1977, 6-7, 10-11).

The first institutional support for decision usefulness in accounting came in 1966, when an 11-member blue-ribbon committee of the American Accounting Association (AAA) issued its report, *A Statement of Basic Accounting Theory (ASOBAT)*. The committee disavowed recommending a single valuation base, and instead it focused on proposing the standards, or attributes, of accounting information, as well as guidelines for communicating the information, so as “to permit informed judgments and decisions by users of the information” (Committee to Prepare a Statement of Basic Accounting Theory 1966, 1). The committee applied its theory to both financial and management accounting (Zlatkovich 1966). George Sorter (1927-2019) was one of the committee members, about whom Staubus (2003, 165-166) has written, “George’s powers of persuasion and articulation of his thoughts have long been recognized by acquaintances as unsurpassed,” and all who knew him would agree. It is not difficult to believe that Sorter played a major role in the broad design of the committee’s report. Sorter has recalled, “To the best of my recollection we all agreed from the start on the decision usefulness objective as paramount. Our charge from the start was to start anew and ignore past

statements.”¹⁴ Three years later, he advocated an “events” approach to basic accounting theory, keyed to users’ decision models, in opposition to the “value” school, and he said (1969, 17) that most of the *ASOBAT* report’s recommendations “flow more logically from an ‘events’ rather than from a ‘value’ orientation.” This lends further support for the view that Sorter played a formative role in the *ASOBAT* committee’s deliberations.

Staubus (1977, 25) has written that the *ASOBAT* committee’s contribution to popularizing the decision-usefulness objective was “immense.”

In a review article on the *ASOBAT* report, Sterling (1967, 95) wrote that “this document is a revolutionary one when its contents are compared to contemporary practice and education,” although, he said, “the accounting theorist will find little that is new in the *Statement*.” He welcomed the committee’s “new methodology and world-view” (p. 111), but he disagreed with the committee’s application of its standards and guidelines to accounting information, that is, the formulation of the committee’s policy recommendations.

In Sorter’s second major role, he was named research director in 1971 of the AICPA’s Study Group on the Objectives of Financial Statements, headed by Robert M. Trueblood, of Touche Ross & Co. All of the Study Group members held full-time jobs elsewhere, but Sorter and his colleagues on the staff served full-time and prepared the drafts between meetings of the Study Group. Sorter, whose views on the centrality of decision usefulness were by then solid, has said that the Study Group was a “reactor,” not an “actor,” as it reacted to his team’s drafts. As with legislatures, he said, the real work was done by the staff, between the monthly two-day meetings of the Study Group.¹⁵ Sorter, therefore, exerted considerable influence over the contents of the eventual report. Sidney Davidson, who served on the Trueblood Study Group and was Sorter’s colleague on the Chicago accounting faculty, when asked in an interview whether the *ASOBAT* report influenced the Study Group, replied as follows:¹⁶

George Sorter is never reluctant to offer his views. I’m sure he was a strong influence on *ASOBAT*, where he was a member. And he carried over those same views to our Trueblood committee meetings. So, I would be inclined to say that it wasn’t so much we were influenced by *ASOBAT* as we were influenced by George Sorter.

Oscar S. Gellein, a partner in Haskins & Sells and member of the Study Group, affirmed that Sorter played a major role in drafting the Group’s report.¹⁷

¹⁴ Communication from George Sorter to the author, dated 18 July 2012. For further discussion of the *ASOBAT* report, see Zeff (2013, 278-280).

¹⁵ Author’s interview with George Sorter on 26 March 2001.

¹⁶ Author’s interview with Sidney Davidson, 27 July 2001.

¹⁷ Author’s telephone interview with Oscar Gellein, 19 March 1999.

In a thick volume of papers accompanying the final report, which contained a sampling of the initial drafts sent to the Study Group members for discussion and deliberations, Sorter made amply known his support of decision usefulness (Sorter 1974).¹⁸ Study Group chairman Trueblood had himself avowed that accounting should be attuned to decision making in a 1961 article (coauthored with H. Justin Davidson), which made Sorter's task as draftsman even easier. Moreover, since 1966 Sorter had been closely associated with Trueblood on an array of accounting projects, and each was comfortable with the other's thinking (Zeff 2016, 139). In its report, the Study Group (1973, 13) stated that "The basic objective of financial statements is to provide information useful for making economic decisions."

Following publication of the Trueblood Study Group's report in 1973, the FASB used the Study Group's recommendation in support of decision usefulness as the template for its *Concepts Statement 1* on the objectives of financial reporting, issued in 1978.¹⁹ The FASB's concepts statement laid the groundwork for similar adoptions in the conceptual frameworks issued by the accounting standard setters in Canada, Australia, and Britain, as well as in the frameworks of the International Accounting Standards Committee and Board (Zeff 2013). Decision usefulness thus became the global norm, at least in conceptual frameworks.

Hence, one observes that the infusion of incremental costing (or differential costing) in the management accounting literature and the installation of decision usefulness into the mainstream of financial reporting – two fundamental shifts in accounting thought – can to a considerable degree be traced, mainly via Vatter and his doctoral disciples, to J. M. Clark's Chapter IX on "different costs for different purposes" in 1923.

Futurity in Financial Accounting

Yet another economist seems to have been the founding source of another central element in the objectives of financial reporting in standard setters' conceptual frameworks, namely, futurity. Their conceptual frameworks' statement of objectives calls for enabling users to predict the amount, timing, and uncertainty of future cash flows, or in other words to that effect. Accounting theorists who argued for the use of current cost accounting were drawing on contemporary market prices, but Stanford University economist John B. Canning, in his 1929 book, *The Economics of Accountancy*, proposed valuing assets by reference to their expected future cash consequences. Canning was the first major

¹⁸ For further discussion on the development of the Study Group's report, including Sorter's role, see Zeff (2016).

¹⁹ It is worth noting that George Staubus served as the FASB's research director in 1976-78, when the Board and its staff were developing its *Concepts Statement 1*. Staubus supported the Study Group's report.

theorist whose work came to the attention of accounting academics to argue for futurity in accounting valuation. His book was the thesis he presented for the Ph.D. degree at the University of Chicago, conferred in 1929. Canning was a long-distance disciple of Yale University economist Irving Fisher, whose 1906 treatise, *The Nature of Capital and Income*, was an important early work. Fisher posited that Income is the current flow of economic benefits and that Capital is the discounted present value of future benefits.²⁰

Canning defined an asset as “any future service in money or any future service convertible into money...the beneficial interest in which is legally or equitably secured to some person or set of persons” (p. 22). For receivables (and, by implication, payables), investments in bonds, and finished goods inventory (presumably at a market or net selling price), he preferred taking the present value of future cash flows. This he called direct valuation, using the most reliable indicator of net funds to be produced by the conversion of non-cash assets into cash (chap. XI). For capital assets, he used indirect valuation, which entailed valuing the asset by reference to the minimum cost of replacing its services, again a look into the future, which he labeled as “opportunity differences” (chap. XII).²¹

As will be seen, Canning, following Fisher, argued that assets should be valued by reference to estimated future benefits. He was influential in establishing the link between asset valuation and future cash flows. Authors following in Canning’s footsteps have not all adopted his direction of reasoning. While some have adopted Canning’s approach of basing asset values on estimates of their future cash flows, others have instead propounded asset values that would enable users to predict future cash flows. The difference between the two approaches is subtle but important.²² What is common to both is the emphasis on futurity.

Canning’s book has had a considerable impact on the accounting literature (Zeff 2000a, 7-11). All four of William Vatter’s doctoral disciples – Horngren, Sorter, Staubus, and Green – were much influenced by Canning; hence, Vatter, who cited or quoted Canning several times with favor in his own doctoral thesis published in 1947, evidently was sympathetic to Canning’s theory and likely conveyed this view to his doctoral students. Sorter and Horngren (1962, 394, emphasis in original), citing Canning for support, propounded their theory of “relevant costing”: “If a given cost will not influence either *total* future revenue or *total* future costs, it is not an asset.” This was Canning’s theory adapted to the

²⁰ For review articles on Fisher’s and Canning’s books, see Chambers (1971, 1979). Fisher (1930) praised Canning’s book in a review article. Cardao-Pito (2023) argues that Fisher was a progenitor of decision usefulness and fair-value accounting. I am grateful to Christoph Pelger for apprising me of the latter article.

²¹ For a particularly insightful review of Canning’s book, see Whittington (1980). Also see Ryan (2012).

²² I am indebted to Geoffrey Whittington for helping me bring these two directions to the fore.

historical cost framework. Green (1960) drew heavily on Canning's notion of opportunity differences to support his theory of "cost obviation" as a criterion for determining whether an asset exists.²³ If a cost incurrence obviated the incurrence of a future cost, it qualified as an asset. In his book, *A Theory of Accounting to Investors*, Staubus (1961, ix), an advocate of futurity in the valuation of assets (as noted above), wrote in his preface, "this essay would never have been started if Paton, Canning, and Vatter (in chronological order) had not made their stimulating contributions to accounting theory."

In 1962, Robert T. Sprouse and Maurice Moonitz (1962, 24-25, 27, 39), whom the Accounting Principles Board (APB) had commissioned to write its foundation research study on accounting principles, advocated – much to the disapproval of the Board – that inventories should be shown at net realizable value, when reliable estimates were available. They also recommended that long-term receivables and payables be shown at their discounted present values, which was also antithetical to US GAAP. Both Sprouse and Moonitz had been much influenced by Canning (Zeff 2000a, 9).²⁴ Charles Horngren, while serving on the APB from 1968 to 1973, chaired the drafting committee for the Board's *Opinion No. 21*, "Interest on Receivables and Payables," issued in 1971, which, for the first time under GAAP, stipulated that long-term receivables and payables were to be displayed at their discounted present values. Two factors that hastened the approval of that *Opinion* were the abuses in accounting by franchisors and land developers, who were not discounting their long-term notes receivable carried at low interest rates.²⁵ Was Canning's futurity in the back of Horngren's mind then, too? It is impossible to know, but Horngren did embrace Canning's futurity in asset valuation nine years before. Perhaps Horngren was influenced by the arguments in favor of discounting made in 1962 by Sprouse and Moonitz.

Even more consequential, George Sorter, as research director and chief draftsman for the Trueblood Study Group on the Objectives of Financial Statements from 1971 to 1973, did much to promote futurity in the recommendations for objectives in its final report. In Ronen and Sorter (1972), he was on record as favoring futurity as a factor in composing a "relevant accounting system."²⁶ C. Reed

²³ In 1963, Green became the founding editor of the *Journal of Accounting Research*.

²⁴ In their textbook, Moonitz and Staehling (1952, chap. 5) emphasized futurity in deriving a company's financial position. They presented a five-year "valuation experiment," involving the use of discounted cash flows to place initial valuations on assets, liabilities, and net worth. In their preface, they cited Canning's influence.

²⁵ Author's interview with Charles Horngren, 15 February 2002.

²⁶ In Ronen and Sorter (1972, 278-279, footnote omitted), the authors argued that "[t]he relevant accounting system requires the following data: (1) forecasts of cash flows and the market rate of interest to obtain the [market-risk-determined] value of the firm; (2) measurement of the exit values of the firm's assets and equities at various points of time, and forecasts of prospective changes in exit values; and (3) measurement of past

Parker, the lone financial analyst member of the Study Group, succeeded in persuading his accounting colleagues on the Study Group that investors are interested in future cash flows, not in one or another current valuation of assets (Zeff 2016, 150-151). Parker recalled, in an interview, that as estimating future cash flows came to be discussed more and more in the Board's deliberations, Sorter's drafting "seemed to be coming more in my direction than I dreamed it would be."²⁷ The Study Group's recommendation was:

An objective of financial statements is to provide information useful to investors and creditors for predicting, comparing, and evaluating potential cash flows to them in terms of amount, timing, and related uncertainty. (Study Group on the Objectives of Financial Statements 1973, 20)

In Chapter 6 of the report, the Study Group distilled four sets of information requirements from its objectives, and then, in a matrix analysis, explained how each of four measurement bases – historical cost, exit values, current replacement costs, and discounted cash flows – fulfilled them. The conclusion was that all four measurement bases played helpful roles.

The Study Group's recommended statement of objective on future cash flows, in modified wording, was subsequently adopted by the FASB in *Concepts Statement 1*²⁸ and eventually by accounting standard setters around the world in their own conceptual frameworks. While the direction of reasoning in the Study Group's statement of objective, going from values to cash flows, differed from Canning's approach of going from cash flows to values, Canning's argument for valuation did much to create a climate of discussion in which a look ahead to future cash receipts and disbursements increasingly became an accepted mode of thinking in the financial accounting model.

It therefore seems that John Canning's 1929 book stimulated a stream of thinking and writing that helps us understand why futurity occupies a central place in the objectives of financial reporting so widely accepted today.

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transactions." The manuscript for this article was completed prior to the beginning of the Study Group's deliberations.

²⁷ Author's interview with C. Reed Parker, 29 March 2001.

²⁸ Three Canning *aficionados* were at the FASB during the 1970s, when the FASB was deliberating on the statement of objective in its conceptual framework. Robert Sprouse was the Board's vice chairman, and Oscar S. Gellein, who had been a member of the Trueblood Study Group, was a Board member. Gellein (1981, 2-15) wrote of his high regard for Canning's book. Further, as noted above, George Staubus was the Board's research director from 1976 to 1978.

The American literature on general price-level accounting (GPLA) was, I have found, stimulated by the writings of economist Irving Fisher (1867-1947), a pioneer of index numbers. But the early going in the follow-on accounting literature traversed a curious path.

The first GPLA article in the USA was published in the February 1918 issue of *The Journal of Accountancy*, whose unknown author was neither an academic nor a partner in an audit firm but instead a 22-year-old former employee of Lybrand, Ross Bros. & Montgomery, an important audit firm. The article ran a scant 6½ pages, and its young author, Livingston Middleditch, Jr. (1895-1974), cited Fisher's 1911 treatise, *The Purchasing Power of Money*.²⁹ The article was entitled, "Should Accounts Reflect the Changing Value of the Dollar?" and in it the author proposed a series of index-number adjustments to current assets and liabilities as well as to fixed assets and long-term liabilities to reflect the decline in the purchasing power of the dollar. Inflation was a serious problem in the 1910s. Between 1913 and 1920, the US general price level doubled, and in 1917, the year prior to the publication of Middleditch's article, the annual inflation rate reached 17 percent. Middleditch was not a certified public accountant, and by the time his article appeared he had left the accounting profession, never to return.³⁰

William A. Paton, a young accounting professor at the University of Michigan, who was not known for citing the works of others, immediately seized on Middleditch's article and praised the author's "ingenious way" of recognizing "changes in the significance of the money unit in the accounts" (Paton 1918, 46). Paton was an advocate of replacement cost accounting, and two years later, in an article entitled "Depreciation, Appreciation and Productive Capacity," again citing Middleditch's article, he discussed how the recent years' run-up in the replacement cost of many enterprises' fixed assets was very likely matched by the shrinkage in the dollar during the same period, and therefore the increase in the replacement cost of their fixed assets was largely or entirely nominal (1920, 4, 10).

Henry W. Sweeney (1898-1967), whose celebrated 1936 book, *Stabilized Accounting*, which, together with his numerous articles, put GPLA indelibly on the American accounting map, said he traced much of his early interest in GPLA to Middleditch's "thought-provoking" article and to Paton's "excellent" article published in 1920 (Sweeney 1964a, xx, xxix).³¹ He was also well aware of the writings by Irving Fisher, citing three of his books (Sweeney 1936, 4, 10, 17) as well as of the work on index numbers by economist Wesley Clair Mitchell.

²⁹ Middleditch received a bachelor's degree in June 1916 from Cornell University.

³⁰ For more on Middleditch, see Zeff (1980, 19-20).

³¹ Sweeney's preference was for the use of replacement cost accounting, not historical cost accounting, but here I am placing emphasis on his adjustment technique to record the effects of inflation. Sweeney's articles and book were drawn from his Ph.D. thesis at Columbia University.

Sweeney was particularly motivated by Paton's 1920 article – in which Paton applied Middleditch's index-number adjustments to depreciation – and wrote:

That excellent article [was] far in advance of its time....It was the first exposition I had seen of how accounting figures, representing depreciation, could be revised to show the changing purchasing power of money. It stimulated and encouraged me to try to develop all the great possibilities that this new subject in the United States seemed to offer. (Sweeney 1964a, xx)

Sweeney remembered Middleditch's path-breaking article even as late as the 1960s. In September 1962, at the time of the Eighth International Congress of Accountants, held in New York City, I urged Sweeney to come to the midtown Congress hotel in order to be reunited with Paton, whom he had not seen in over thirty years. Sweeney, upon greeting Paton, immediately exclaimed, "Do you remember Livingston Middleditch, 'Should Accounts Reflect the Changing Value of the Dollar?'"

In the course of the research for his book and articles, Sweeney gathered considerable intelligence from French and German sources about the GPLA literature and experience in those countries following the First World War (Sweeney 1964a, xx-xxii). Whittington (1994, 255) has observed that Sweeney's "seminal contribution to price change accounting...distilled the continental European (particularly the German) experience of general index adjustment of accounts...." Hence, one must acknowledge as well this important transatlantic influence on the content of Sweeney's contribution.

Of Sweeney's advocacy of GPLA, Gilman (1939, 6) wrote, "His proposal has been given serious consideration by accounting thinkers. During severe inflationary periods his plan, or a variation of it, may be almost a necessity."

William Paton did much to carry forward Sweeney's GPLA message. He urged acceptance of supplementary statements of GPLA reporting. In Chapter VII of Paton and Littleton's highly influential 1940 monograph, *An Introduction to Corporate Accounting Standards*, a chapter that Paton wrote by himself (Paton 1980), he cited the need for a supplementary reporting of "stabilized accounting" (pp. 139-141), the term coined in 1936 by Sweeney. In his *Advanced Accounting* textbook, published in 1941, Paton devoted an 18-page chapter to advocating and illustrating "common-dollar reporting," citing Sweeney's book. In *Corporation Accounts and Statements*, his advanced accounting textbook published in 1955, he again dedicated a full chapter to promoting the cause of "uniform-dollar reporting," which was more than twice the length of its predecessor in *Advanced Accounting*. Paton also influenced the AAA Committee on Concepts and Standards Underlying Corporate Financial Statements' Supplementary Statement No. 2, "Price Level Changes and Financial Statements," issued in 1951, which recommended experimentation with supplementary GPLA accounting.

Irving Fisher's influence on the evolution of the GPLA literature was also reflected in two important GPLA articles in 1935 and 1949, and in two GPLA books sponsored and published by the AAA in 1955 and 1956, written by Ralph Coughenour Jones (1897-1984), a longtime accounting professor at Yale University who had studied under Fisher and served for a short time in Fisher's Index Number Institute (Zeff 1976, Introduction, 44).

Sweeney's book and Jones's two AAA-sponsored books were cited (the latter two extensively) in Edwards and Bell's highly influential 1961 treatise, *The Theory and Measurement of Business Income*, when they were separating profits and gains into real and fictional elements.

The three lengthy case studies in Sweeney's *Stabilized Accounting* were briefly summarized in the Accounting Principles Board's GPLA research study (Staff of the Accounting Research Division 1963, 247-249). Ralph C. Jones served on the project advisory committee for the research study, which drew on the findings of the price-level restatement studies in his 1949 article and 1955 book (pp. 237-241). Sweeney (1964b, 1100), in his review of the research study, said, "the basic recommendations of the Study are those of [my] own book, *Stabilized Accounting*....To review the Study's main concepts, therefore, places this reviewer in the anomalous position of practically reviewing his own work."

It is widely accepted that Sweeney's *Stabilized Accounting*, influenced directly and indirectly by the writings of Irving Fisher, as well as the writings by Ralph C. Jones, a Fisher disciple, have continued to exert a large influence on the subsequent GPLA proposals by standard setters in the USA from the 1940s to the 1970s (Clarke 1976; Tweedie and Whittington 1984, 17-18, 39-41, 263, 276). Three prominent examples in America were the Accounting Principles Board's nonbinding *Statement 3*, issued in 1969, "Financial Statements Restated for General Price-Level Changes," and both the FASB's exposure draft issued in 1974, "Financial Reporting in Units of General Purchasing Power," and its *Statement of Financial Accounting Standards No. 33*, issued in 1979, "Financial Reporting and Changing Prices."

Consolidation Goodwill in Business Combinations

This fourth instance of a curiosity over the origin of a practice or idea relates to the standards on business combinations issued by the FASB and the IASB in 2007 on the noncontrolling interest (NCI) in goodwill resulting from a business combination.³² Previously, their standards had not allowed the inclusion of the NCI's implied share of goodwill.³³ However, in the amendments of 2007, the FASB *required* the recognition of the NCI in goodwill, while the IASB made this an option (as an alternative to

³² These were the FASB's *Statement No. 141R* and the IASB's 2007 amendments to *IFRS 3*.

³³ In the case of the old *IFRS 3*, this was in paragraph 51.

showing only the parent's interest). As far as I know, this novel practice of recognizing "full goodwill" had not previously been taken up by any standard setter in the world.³⁴ Whence and with whom did it originate?

I have traced the first argument for such a practice to an American accounting textbook published in 1927, written by Henry Rand Hatfield. Although Hatfield (1866-1945) was one of the most widely respected American accounting professors in the first half of the last century, he could arguably be characterized as an economist, not as an accountant. He received a Ph.D. degree in political economy and political science in 1897 from the University of Chicago, and then was pressed into teaching accounting because he had spent five years working in a banking house. Yet Hatfield had never taken a course in accounting or worked as an accountant (Moonitz 1984, 3; Zeff 2000b, 30, 34, 285-286). From 1904 to 1937, when he retired, he was an accounting professor at the University of California, Berkeley, and he wrote two pioneering accounting textbooks, the second being the award-winning *Accounting, Its Principles and Problems*, in 1927. On page 448 of the latter, in a chapter on the Consolidated Balance Sheet, he wrote:

Inasmuch as in the consolidated balance sheet the full value of each of the assets is shown, although the holding company has only a fractional interest therein, it seems needlessly inconsistent in regard to the single asset goodwill to show only part of its value and to neglect entirely that portion representing the equity of the outstanding stockholders.

One of Hatfield's students at Berkeley was Maurice Moonitz (1910-2009), and Hatfield served on Moonitz's master's thesis committee on consolidated financial statements in 1936 (Moonitz 1984, 3). Moonitz, with Hatfield as his principal adviser, wrote a monograph, *The Entity Theory of Consolidated Statements*, published by the American Accounting Association in 1944.³⁵ In the monograph, he argued that a group of closely allied corporations should be treated as "a distinct economic or accounting entity" (p. vii), not as an extension of the parent company's interest. The entity theory required that all of the acquired assets and liabilities, including goodwill, be shown at their full amounts, not just at the majority interest percentage (pp. 62-72, 95). In an article published two years before, Moonitz (1942, 240) said that the conventional practice of showing only the majority interest percentage in goodwill

³⁴ In 1990, the UK Accounting Standards Committee proposed in *ED 50* that the "full goodwill" approach should be prohibited. I am grateful to Brian Rutherford for this foregoing information. In 1992, the UK Accounting Standards Board issued *FRS 2*, which declared that "no goodwill should be attributed to the minority interest" (para. 38). The reason given was that such an attribution would be "hypothetical because the minority is not a party to the transaction" (para. 82). I am grateful to Chris Nobes for this latter information.

³⁵ Walker (1978, 351-352) has also remarked on Moonitz's debt to Hatfield.

was “a peculiar and illogical procedure derived probably from a general distrust of goodwill coupled with the accountant’s inherent conservatism.”

The implication of Moonitz’s entity theory for the valuation of consolidation goodwill in less-than-100% acquisitions was treated in the leading advanced accounting and theory textbooks,³⁶ but it did not formally come to the FASB’s attention until 1991, when the Board published a discussion memorandum (DM), which was a survey of the literature, *Consolidation Policy and Procedures*, for which Moonitz, at age 80, was one of the consultants. He wrote several memoranda to the principal author of the DM, setting forth his views, and his *Entity Theory* monograph was the only academic work cited in the DM. The DM compared Moonitz’s “economic unit concept” with the conventional “parent company concept,” and it discussed the recognition of “full goodwill” under the former (pp. 61-62). The DM thus brought Hatfield’s concern from 1927 directly to the Board, and in 2005, when the FASB issued its exposure draft (ED) to propose requiring recognition of “full goodwill,” it actually cited *and quoted* Hatfield’s expressed concern from 1927 in a footnote on page 73, in the basis for conclusions. Seldom do standard setters cite the academic literature at all in their EDs and final standards, but to quote from an academic source written in 1927 is astonishing!

Through inquiries made of the FASB’s staff in charge of the project, I have learned that no one recalls who inserted the footnote in the ED. One supposes that the quotation from Hatfield must have appeared in one of Moonitz’s memoranda written in 1990-91, where it was noticed in 2005 by an FASB staff member. This is one of the very few instances when the inspiration for a novel American accounting standard can be traced to the academic literature, and, indeed, to an academic who was more an economist than an accountant and who had ventured his view more than three-quarters of a century earlier.³⁷

The influence of academic authors on the practice of accounting in the USA has been far less than in some other countries, such as Germany. Hence, the influence of Hatfield via Moonitz has been an interesting exception well worth noting.

Conclusions

What are the contributions of this paper? In regard to the identifications of the originating authors for the four streams of thought discussed above, most of the designations are new to the literature. The FASB itself identified Henry Rand Hatfield’s 1927 observation as the origin of full goodwill,

³⁶ See Finney and Miller (1952, 527-533), Karrenbrock and Simons (1955, 345-346), and Hendriksen (1965, 351).

³⁷ See Zeff (2005) for a succinct overview of the trail from Hatfield to the FASB.

and numerous writers had already pointed to John Maurice Clark's 1923 book as the original stimulus for differential costing to pervade the management accounting literature. But the arguments in this paper that Clark's book also prompted subsequent writers to press for the acceptance of decision usefulness in financial accounting, that John Canning originated much of the later thinking and writing that led to the focus on futurity in financial accounting, and that Irving Fisher's teaching and writings on index numbers were at the root of most of the later work on GPLA accounting are all novel, save for brief mentions in two previous writings (Zeff 2000a, 8-10; Zeff 2017).

A major contribution of this paper is its tracing of the *trail* in the streams of thought over decades from the originating authors directly or indirectly to the eventual expressions of widely accepted views found in the contemporary literature. Actually documenting the connections between the originating authors and those who carried forward the several lines of thought discussed above are what this paper brings to the literature. Collectively, they can provide a roadmap to assist researchers when tracing intellectual origins in other streams of accounting thought – first, finding the dots, and then connecting them.

A contribution that emerges from tracing the trail left by Canning's theory is that not all followers of his emphasis on futurity adopted his direction of reasoning from future cash flows to asset values. Some followers, notably the Trueblood Study Group, reversed the direction of reasoning by going from asset values to future cash flows.

Also of note is the finding that it was a financial analyst, not an accountant, serving on the Trueblood Study Group, who convincingly argued, with George Sorter's support, that investors are interested not in asset valuations but in estimating the enterprise's ability to generate future cash flows. This emphasis on estimating future cash flows was eventually carried into the statement of objective in conceptual frameworks around the world.

That the originating authors in all of the four streams of thought discussed above were economists lends further credence to the view that, to a large extent, the discipline of economics lies at the base of accounting, probably being the most important of the several disciplines that are central to our field.

Finally, it is to be hoped that the foregoing analysis of the four streams of thought makes a strong case for the benefits conferred by attempting to trace the intellectual origins of our contemporary beliefs and practices.

AUTHOR'S INTERVIEWS

Sidney Davidson, 27 July 2001
Oscar S. Gellein, 19 March 1999 (telephone)
Charles T. Horngren, 15 February 2002
C. Reed Parker, 29 March 2001
George H. Sorter, 26 March 2001

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³⁸ This is a republication, re-edited with some updatings, of the original work which was published in 1962 in Indonesia, where Devine then resided. Credit for arranging the republication belongs to Yuji Ijiri, the 1982-83 president of the American Accounting Association.

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