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John B. Canning: A View of His Academic Career

Although his major published work on accounting spanned only four years, from 1929 to 1933, of his career as an economist, John B. Canning was author of a major treatise on accounting theory, *The Economics of Accountancy*. Yet little is known about his academic career, including when and why he became interested in accounting, and when and why his interest shifted to other subjects. The aim of this article is to endeavour to trace the impact of his book on later contributors to the accounting literature and to review his academic career, especially in relation to his work in accounting, drawing on interviews with former colleagues and students.

Key words: Accounting education; Accounting theory; History of thought.

John Bennet Canning¹ was a son of the U.S. Middle West, grew up in Michigan and Oklahoma, took bachelor's and doctor's degrees at the University of Chicago, was on the Stanford University economics faculty for twenty-seven years, and served as an economics expert to the U.S. government on food and agricultural problems.

Professional and social problems intrigued Canning. In the 1920s, he assiduously developed an elaborate accounting curriculum within the Stanford economics department with a view toward upgrading the public accounting profession. To Canning, mathematics, law and economics formed the base of a proper accounting education. In the 1930s and 1940s, he turned his attention to problems at the macro level: the government's fiscal policy, its programs of unemployment insurance, social security and health insurance, and eventually its agricultural policy.

Canning was not a prolific writer. He wrote one book and a dozen journal articles, of which five pertained to accounting.² His *magnum opus*, *The Economics of Accountancy: A Critical Analysis of Accounting Theory* (1929b), was primarily

¹ Canning's middle name was correctly spelled with one 't', although a few authors have written it as Bennett (e.g., Smith, 1974).

² A complete list of Canning's published work is appended to this article.

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intended to provide accountants with an understanding of economics that is relevant, indeed essential, to the theory and practice of accounting. Canning's book is regarded by many as one of the major works on accounting theory, and it was republished by Arno Press in 1978.

Most of the particulars contained herein have not previously been reported in the literature.³ This research project began in 1964, when the author conducted interviews with Canning's widow and former colleagues in the Stanford University economics department, and corresponded with former students. In recent years, the author conducted further interviews and inquiries, and William R. Smith, who had communicated with some of Canning's former colleagues and students in the early 1970s, generously provided the author with his file of correspondence.

This article proposes to address the following questions: What was Canning's background and why did he become interested in accounting? What was his impact on the accounting literature, and how was he regarded by his students? Why did he largely withdraw from the accounting literature in the 1930s?

The article will begin by examining the impact of *The Economics of Accountancy* on subsequent theorists and other writers, and will proceed to review Canning's childhood and his undergraduate and graduate years at the University of Chicago, his single-handed effort to develop a fully-fledged accounting curriculum in the economics department at Stanford University (which was dismembered as soon as he retired), his manner as a teacher, the preparation and completion of his doctoral dissertation in mid-career, and the implications of his expanding interests in the 1930s and 1940s.

OVERVIEW OF CANNING'S IMPACT

Canning's impact on accounting thought is traceable almost entirely to *The Economics of Accountancy* rather than to his articles or to the work of his disciple, Edward G. Nelson.⁴ In his book, Canning was, together with Paton (1922), the first to attempt development of a comprehensive accounting theory. Moreover, Canning was the first to develop and present a conceptual framework for asset valuation and measurement founded explicitly on future expectations. An emphasis on futurity has since come to be embraced by the American Institute of Certified Public Accountants' Study Group on the Objectives of Financial Statements (Study Group, 1973) and by leading national standard setters.⁵ His emphasis on asset valuation, and thus on the balance sheet, has also become the dominant focus of

³ Biographical data in a previous article on Canning (Gibson, 1993) are based on published materials. A brief profile of Canning (Smith, 1974) reflects the latter's correspondence with some of Canning's former colleagues and students.

⁴ For three related examples of Nelson's influence, however, see Moonitz and Staehling (1950, p. 212), Storey (1960) and Sprouse and Moonitz (1962, p. 15). For more about Nelson, see note 26, *infra*.

⁵ See, e.g., SFAC 1 of the Financial Accounting Standards Board (1978); Statement of Accounting Concepts (SAC) 2 of the Public Sector Accounting Standards Board and the Accounting Standards Review Board (1990), in Australia; and the U.K. Accounting Standards Board's revised exposure draft, *Statement of Principles for Financial Reporting* (1999).

the same leading standard setters, as well as of a number of important modern theorists, including R. J. Chambers (1966), W. T. Baxter (1971) and David Solomons (1995). At the very least, one can say that Canning was ahead of his time.

One-third of Canning's book consists of a critical analysis of accounting practice. As an outsider looking in, he was an insightful observer of the product of accountants, and he tried to make sense of what they did. (See also Canning, 1929a.) He was frustrated by their confusing terminology (1929b, pp. 92–4), their misguided use of 'conservatism' (pp. 194–5) and their 'astonishing lack of discussion of the nature of income' (p. 93). He ruefully concluded that 'what is set out as a measure of net income can never be supposed to be a fact in any sense at all except that it is the figure that results when the accountant has finished applying the procedure which he adopts' (pp. 98–9). He added that 'accountants have no complete philosophical system of thought about income; nor is there evidence that they have ever greatly felt the need for one' (p. 160).⁶

Yet Canning admired much of what accountants had achieved and was fully aware of the difficulty and importance of the task facing them (e.g., chaps VII, XII and XV). George O. May, a leading American accounting practitioner who was critical of Canning's characterization of accounting as essentially a process of valuation, nonetheless conceded that 'Professor Canning displays a sympathy with accountants and a knowledge and an appreciation of their work that is not common in other than purely professional writers' (Hunt, 1936, Vol. 2, p. 406; also p. 309).

Canning was the first to point out that the accountant's implied definition of assets omits 'those services arising from contracts the two sides of which are proportionately unperformed' (p. 22), an observation that has been cited by a number of authors, especially when the capitalization of long-term, non-cancelable leases began to be an important accounting issue in the 1960s.⁷

On the most ephemeral of balance-sheet items, goodwill, Canning wrote:

Goodwill, when it appears in the balance sheet at all, is but a master valuation account—a catch-all into which is thrown both an unenumerated series of items that have the *economic*, though not necessarily the *legal*, properties of assets, and an undistributed list of undervaluations of those items listed as assets. It is the valuation account *par excellence*. (pp. 42–3)

Goodwill, he said, 'cannot under any circumstances be called an "asset"'. Instead, it properly belongs to the class of 'valuation accounts that are set out as adjuncts' to true asset accounts (p. 43). Canning's characterization of goodwill as 'a master valuation account' has also been frequently cited in the literature.⁸

⁶ Both of these passages have been cited by later writers: for the first, see, e.g., Norris (1946, pp. 3, 115), Chambers (1955, p. 17; 1979, p. 767) and Solomons and Zeff (1996, p. xiii), which was drafted by Solomons; for the second, see, e.g., Vatter (1947, p. 76), Bedford (1965, pp. 71–2), Ball and Brown (1968, p. 160), Henderson and Peirson (1983, pp. 93–4) and Devine (1985, Vol. II, pp. 57, 135).

⁷ See, e.g., Myers (1962, p. 5), Wojdak (1969, p. 563), Most (1977, p. 217) and Miller and Islam (1988, p. 17).

⁸ See, e.g., Morrison (1956, chap. 19, p. 2), Hendriksen (1965, p. 348), Gynther (1969, p. 249), Most (1977, p. 241), Devine (1985, Vol. II, p. 92) and Miller and Islam (1988, p. 91).

Two-thirds of Canning's book is an argument for an improved measurement system for accounting, predicated on Irving Fisher's classic treatise, *The Nature of Capital and Income* (1906).⁹ Chambers (1979) and Whittington (1980) have ably analysed and assessed Canning's theory, and no attempt will be made here to duplicate what they have done. According to Whittington, Canning's 'fundamental contribution to accounting thought' was his emphasis on the forward-looking valuation of assets (1980, p. 238). In today's jargon, he treated two aspects: definition and measurement. In regard to definition, he wrote: 'An asset is any future service in money or any future service convertible into money (except those services arising from contracts the two sides of which are proportionately unperformed) the beneficial interest in which is legally or equitably secured to some person or set of persons' (1929b, p. 22).

Measurement occupied much of Canning's attention (see Chambers, 1979). As an ideal, he favoured the 'direct valuation' of assets, that is, the discounted present value of what Fisher called 'realized [money] income'. He believed that this ideal could be applied to such assets as cash, receivables and finished goods inventory, for which 'a realized money income exists and is statistically determinable' (1929b, p. 207). In this respect, he departed from the emphasis placed on contemporary replacement costs or market values by Paton (1918, 1922) and Schmidt (1921) and soon to be advocated by Sweeney (1932) and MacNeal (1939).

With respect to other assets, Canning recommended 'indirect valuation': '(1) the present worth of future outlays necessary to obtain like services in like amounts by the *best available alternative means*, less (2) the present worth of future outlays necessary to obtain the agent's future service in the *most economical manner*' (p. 188). Whittington wrote that Canning's 'main contribution to valuation is the advocacy of the "opportunity difference" principle for indirect valuation, i.e. valuing the asset in terms of the minimum cost of replacing its services, on the assumption that the services are essential to business operations and that it is economically worthwhile to continue operating' (1980, p. 238).

These two important contributions, the explicit emphasis on futurity and the use of opportunity differences as a proxy for direct valuation, arguably influenced subsequent theorists. In their important 1940 monograph, *An Introduction to Corporation Accounting Standards*, Paton and Littleton also emphasized futurity. They argued that '"Service" is the significant element behind the accounts, that is, service-potentialities, which, when exchanged, bring still other service-potentialities into the enterprise' (p. 13). While Paton and Littleton did not cite previous authorities, Paton (as will be shown below) knew and admired Canning's book. But no more than a weak case can be made for actual influence.

Next in the chronological line were William J. Vatter, the originator of the 'fund theory of accounting' (1947), and George J. Staubus, a Vatter disciple. After citing Canning's 'future service' definition of an asset (Canning, 1929b, p. 22; quoted above) and Paton and Littleton's reference to 'service potentialities' (Paton and Littleton, 1940, p. 13), Staubus noted that 'It was William J. Vatter, however, who

⁹ Chambers (1971) has written a retrospective review of Fisher's book.

set the pattern for modern definitions (1947, p. 17): “Assets are service potentials, not physical things, legal rights, or money claims”. Service potential is now commonly accepted as the central characteristic of assets’ (Staubus, 1977, p. 123).¹⁰ In his influential doctoral thesis, completed in 1947, Vatter was much aware of Canning, and he evidently transmitted this appreciation to his own doctoral students. Two of his disciples, George H. Sorter and Charles T. Horngren (1962, p. 394, n. 9), quoted Canning’s proposal for indirect valuation with favour. Another Vatter disciple, David Green, Jr. (1960), quoted Canning’s definition of an asset and drew heavily on his indirect valuation when fashioning his own notion of ‘cost obviator’. Staubus, an advocate of futurity, wrote in the published version of his doctoral dissertation, which was the first major articulation of the ‘decision-usefulness theory of accounting’, that ‘this essay would never have been started if Paton, Canning, and Vatter (in chronological order) had not made their stimulating contributions to accounting theory’ (1961, p. ix). Subsequently, Staubus drafted the policy recommendations in the first Australian study of objectives and concepts of financial statements (Kenley and Staubus, 1972) and served as the Financial Accounting Standards Board’s director of research and technical activities in 1976–8, during the early development of the board’s conceptual framework (see Gore, 1992, p. 112).¹¹

For his part, Sorter served as an influential member of the American Accounting Association’s committee¹² that prepared the path-breaking monograph, *A Statement of Basic Accounting Theory* (known as *ASOBAT*: AAA, 1966) and as research director of the AICPA’s Study Group on the Objectives of Financial Statements. He played a major role in drafting the Study Group’s report, *Objectives of Financial Statements* (1973), known as the Trueblood Report, which advocated the forward-looking orientation of financial statements, with a strong emphasis on estimating future cash flows.¹³ The Trueblood Report, in turn, became the template for the FASB’s SFAC 1, *Objectives of Financial Reporting by Business Enterprises* (1978). All three of these statements embodied the decision-usefulness approach. Sorter, who had earlier reviewed Staubus (1961), and characterized it as ‘a stimulating work which presents a new approach to the purpose and structure of accounting theory’ (1963, p. 223), played a role in advancing the cause of decision-usefulness in both *ASOBAT* and the Trueblood Report.

R. J. Chambers, whom Barton has described as ‘one of the few giants of contemporary accounting thought’ (1982, p. 128), has written that Canning’s *Economics of*

¹⁰ Horngren has written that Vatter’s ‘adoption of “service potential” as the key characteristic of an asset has been particularly influential’ in the financial accounting literature (Horngren, 1991, p. 234).

¹¹ A more extensive treatment of Staubus’ role in the evolution of the decision-usefulness theory literature may be found in his forthcoming book, *Development of the Decision-Usefulness Theory of Accounting*. For a further treatment of the evolution of the decision-usefulness approach, see AAA (1977, pp. 10–21).

¹² Telephone interview with Charles T. Zlatkovich, chairman of the committee, 3 April 1999.

¹³ Telephone interview with Oscar S. Gellein, 19 March 1999. Gellein was a member of the Study Group.

Accountancy was an early influence in his own thinking (Chambers, 1979, pp. 764–5), and Whittington has observed that ‘in some respects [Chambers is] an intellectual successor to Canning’ (1980, p. 238).¹⁴ Chambers’ influence in Australia and overseas has been immense. In Australia, his exit price system was one of the alternative valuation approaches considered in the mid-1970s by the Australian Accounting Research Foundation (1975), and in 1978 Chambers chaired the Accounting Standards Review Committee which rendered a report on company accounting standards to the New South Wales government. Chambers’ continuously contemporary accounting (CoCoA, as his system came to be known) was one of the three accounting methods studied in New Zealand’s government- and private-sector-sponsored Inflation Accounting Research Project in the 1970s and was expressly considered in two government-sponsored inquiries: New Zealand’s Richardson Report (*Report of the Committee of Inquiry into Inflation Accounting*, 1976) and the United Kingdom’s Sandilands Report (Inflation Accounting Committee, 1975), as well as in the discussion paper, *Current Value Accounting*, published in 1976 by the Accounting Research Committee of the Canadian Institute of Chartered Accountants.

Maurice Moonitz and Robert T. Sprouse, two major figures in the U.S. literature and in U.S. standard setting, have also been touched by Canning. Through Charles C. Staehling, Canning had a considerable influence on Moonitz, Staehling’s younger colleague at Berkeley¹⁵ (Moonitz, 1984, pp. 2–3). This appreciation of Canning was shortly transmitted to Sprouse. In 1955, Sprouse joined the Berkeley faculty where, he later wrote, Moonitz ‘was in fact my mentor’ (1994, p. 156). For a textbook in his intermediate accounting classes, Sprouse used Moonitz and Staehling (1950), with its ‘valuation experiment’ derived explicitly from Canning’s direct valuation model. Intrigued by this section of the book, he proceeded to study and become impressed with Canning’s argument.¹⁶ Canning’s influence is well exemplified in Sprouse (1966, pp. 111–12). Of course, Moonitz and Sprouse have had an impact on others. In particular, Moonitz was the AICPA’s director of accounting research in 1960–3 and served as a member of the Accounting Principles Board (APB) from 1963 to 1966, Moonitz and Sprouse wrote the monographs on accounting postulates and principles which the APB commissioned in 1960 (Moonitz, 1961; Sprouse and Moonitz, 1962), and Sprouse served on the FASB from 1973 to 1985 and played a major role in the development of the board’s entire conceptual framework (see Gore, 1992, p. 113).

Oscar S. Gellein, a former accounting academic and research partner of Haskins & Sells (today part of Deloitte & Touche), has written of his high regard for Canning’s book: ‘Canning proceeded with great skill, and with considerable foresight of a growing need, to deduce the fundamentals underlying the accounting practices

¹⁴ In Chambers’ monumental *An Accounting Thesaurus: 500 Years of Accounting* (1995), no work is quoted more times than Canning’s *Economics of Accountancy*.

¹⁵ Interview with Maurice Moonitz, 19 April 1995. For evidence of this impact, see Moonitz and Staehling (1950, chaps 2 and 5–7) and Sprouse and Moonitz (1962, p. 15).

¹⁶ Telephone interview with Sprouse, 1 October 1997.

of his day' (1981, p. 2–27). Gellein also had occasion to become familiar with Staubus' work on decision-usefulness accounting, for he served as discussant on Staubus' paper on 'The Relevance of Evidence of Cash Flows' at a research conference held in 1970 (Staubus, 1971). Gellein was an influential member of the Trueblood Study Group and served as well as on the FASB from 1975 to 1978, where he played an important role in shaping the board's conceptual framework (see Gore, 1992, p. 113).

In its treatment of 'opportunity differences', Canning's *Economics of Accountancy* influenced James C. Bonbright and F. K. Wright directly and others (e.g., W. T. Baxter and David Solomons) indirectly in the formulation of 'value to the owner', or 'deprival value', which has become one of the leading concepts underpinning the current valuation of assets (Whittington, 1980, pp. 237–39; Whittington, 1994, pp. 254, 259; Bonbright, 1937, esp. p. 227n.; Henderson and Peirson, 1983, p. 133; Wright, 1964, p. 82n.).¹⁷ Solomons and Baxter have been the 'two main supporters' of deprival value (Ashton, 1987, p. 1).

Yet Carl T. Devine, one of the foremost accounting scholars, was moved to write: 'It still amazes me that Canning's major contribution to the accounting profession continues to be under-estimated generation after generation' (1985, Vol. V, p. 88n.). He said that Canning's 'rule for handling indirect valuations is certainly one of the best available' (1985, Vol. V, p. 88).

Canning's book was not mentioned by a number of important subsequent authors who have fashioned accounting theories or conceptual frameworks. He was not cited by Sweeney (1936), MacNeal (1939) or Alexander (1950), another economist who propounded a future-oriented valuation framework, nor by Edwards and Bell (1961). Solomons, who was actively involved in developing the statement on qualitative characteristics for the FASB's conceptual framework as well as with the evolving conceptual framework in the U.K., was much more impressed by Alexander than Canning (see, e.g., Solomons 1961).¹⁸ Reed K. Storey, who had much to do with the research studies of the APB as well as with the FASB's conceptual framework (see Gore, 1992, p. 113), did not mention Canning in his two most important works on the subject (Storey, 1964; Storey and Storey, 1998). Yet, in his doctoral dissertation completed in 1958 (published in 1978), Storey, a Moonitz disciple, drew on Canning (1929b), Canning's disciple Nelson (1942), and Moonitz and Staehling (1950).

While virtually all citations to Canning's book have been non-negative, several major authors have taken issue with his analysis.¹⁹ In particular, Ball and Brown

¹⁷ In the 1930s, Canning's and Bonbright's books influenced Ronald S. Edwards, at the London School of Economics, who transmitted this influence in the 1940s to David Solomons, who was then a junior faculty member at LSE. Also in the 1930s, Bonbright's book influenced W. T. Baxter, who later coined the term 'deprival value'. (Letter to the author from Baxter, dated 23 October 1997.) See Baxter, 1967, pp. 212–13; 1971, chap. 4; and 1978, pp. 15–16 of the Preface. Also see the biographical essays on Baxter, Edwards and Solomons, as well as the editors' introductory notes, in Parker and Zeff (1996).

¹⁸ Confirmed in conversations with Solomons.

¹⁹ See Preinreich (1937), Bedford (1965, pp. 71–72), Ijiri (1967, p. 64n) and Chambers (1979).

(1968) reacted to Canning's conclusion that accounting income is meaningless, a mere consequence of an illogical set of procedures used in its calculation. Their well-known empirical work was designed to demonstrate that one important category of users—shareholders—do not find accounting income to be meaningless at all. Ball and Brown rejected the argument by Canning and others that the only meaningful accounting information could be current market values. They found that accounting income (and thus change in book value of equity) is correlated with change in the current market value of equity, as observed in the share market. Hence, they concluded, accounting income already impounds information about economic income.

Canning's influence cannot be detected in most of the tradition-encrusted textbook literature in accounting or in accounting practice, especially in the U.S.A.,²⁰ where the Securities and Exchange Commission (SEC) declared its unwavering support of historical cost accounting in the 1930s, a policy it did not seriously reconsider until the inflationary decade of the 1970s (see Walker, 1992). In the U.S.A., textbooks march to the tune of the Uniform Certified Public Accountants Examination, and the examination in turn is attuned to 'generally accepted accounting principles' as enforced by the SEC. Canning was, however, amply noticed by other reformers, by students of accounting theory and also by the early leaders of agency theory research (Watts and Zimmerman, 1979, p. 298). His book has been discussed, sometimes at length, in most treatises on accounting theory, and it was included amongst the thirteen most important writings in the classical genre of theory development by an American Accounting Association committee that comprehensively reviewed the literature in the mid-1970s (1977, Chap. 2).

Views on Canning's Contribution

Chambers (1979) was impressed by Canning's criticisms of accounting theory and practice and by the rigour he brought to his analysis. Whittington (1980, p. 237) said that Canning's book 'represented an important step forward in accounting thought and can still be read with benefit by those concerned with current developments in the subject'. Moonitz and Littleton (1965, p. 84) have written that Canning 'was primarily a statistician and economist who found accounting of interest because of the wealth of data it provides for analysis and evaluation. He is one of the first to observe that what accountants do is better than what they say about what they do—their actions are better than their explanations.'²¹ Schumpeter regarded Canning's *Economics of Accountancy* as an 'important . . . response' to Irving Fisher's 'first step toward co-ordinating the economist's and the accountant's work' (1954, p. 945). Fisher himself wrote that 'It would not seem an exaggeration to say

²⁰ Indeed, Sterling (1970, p. 254) placed Canning in a 'fringe group' of theorists for 'their lack of impact on the practice of accounting and the textbook literature'.

²¹ That Canning viewed accounting through the eyes of an economic statistician is often overlooked. Vatter (1961, pp. 589–90) has written, 'Canning's attempt to explain and systematize the philosophical basis of accounting in an economic world stressed the nature of accounting measurements as essentially statistical, even as related to valuation and the measurement of income'. Also see Mattessich (1964, pp. 248, 250).

that [Canning's book] marks an epoch in the two branches of knowledge to which it relates—economics and accountancy—and none the less because it is a borderline study rather than strictly within the domain of either branch' (1930b, p. 603). Preinreich wrote that Canning 'has done valuable work in defining direct and indirect valuation', but added that 'his thoughts are not always carried to their logical conclusion' (1937, p. 211).

Tweedie and Whittington viewed *The Economics of Accountancy* as 'a thorough critique of contemporary accounting practice [that] offered alternatives which were designed to bring the accountant's practices more in line with the economist's forward-looking methods of valuation' (1984, p. 25). Wheeler, in his essay, 'Economics and Accounting', regarded Canning's book as the 'outstanding attempt' to bridge the two fields (1955, p. 45).

This review provides considerable evidence that a number of the important theoretical developments during the latter half of the century owe much to Canning's direct and indirect influence. An impact on accounting practice, however, is much less discernible.

CANNING'S EARLY YEARS

Canning was born in Huron County, Michigan, near the border with Canada, on 25 November 1884, the first son of John and Cora Julia (Ford) Canning. His father, a Canadian, had come to the U.S.A. in 1881 and was a farmer.²² In 1901, the Canning family moved to Oklahoma where, as the eldest of six children, John was expected to help his father on the family dairy farm, although it has been reported that he hated farming. At age eighteen, he took active charge of the farm. He received some academic instruction at home, but it was not until age twenty-one that he enrolled in Oklahoma City High School. During his spare time and summers, he continued to work on the family farm. He later reported that, in his six years' management, he increased the value of the farm threefold. The school offered a rigorous curriculum, which included four years of Latin. In his senior year, Canning was editor-in-chief of *The Student*, the monthly, student-run publication, and he played left tackle and fullback on the school's football team. He received his graduation diploma in May 1909.²³

AT THE UNIVERSITY OF CHICAGO

In the fall of 1909, at the age of twenty-four, Canning matriculated at the University of Chicago. As he had developed a strong interest in football, the presence at

²² Details about Canning's early life have been culled from a biographical entry ('Canning, John Bennet', 1968), from interviews with Dorothy P. (Mrs John B.) Canning, 5 December 1964, and with Thomas N. Canning (John B. Canning's youngest son), 16 October 1994, and from articles in *The Daily Palo Alto*, predecessor of *The Stanford Daily* ('John Bennett [sic] Canning Has Varied Interests', 1921; and 'Professor Canning Managed Family Dairy In Oklahoma Before Entering High School', 1923).

²³ 'Seventy Enter Higher School' (1909).

Chicago of Amos Alonzo Stagg, the most famous football coach in the country, may have drawn him there. At Chicago, he majored in political economy and took considerable work in French and German.²⁴ His further studies embraced mathematics, English language and literature, political science, sociology, anthropology, physiology and geography. He apparently considered studying law, but changed his mind.²⁵ He was supported financially by scholarships throughout his four undergraduate years, during which he played fullback on the freshman football team in 1909 and was a right guard on Stagg's varsity football teams of 1911 and 1912. In the spring of his senior year, Canning went out for the track and field team, also coached by Stagg, and succeeded in making the squad in the hammer throw.

During the spring quarter of his sophomore year, Canning took a course in accounting from Nathan C. Plimpton, who was then the university's chief accountant (and eventually became its comptroller). Edward G. Nelson, who studied under Canning in the late 1920s and became his close colleague and friend, recalls that Canning said it was Plimpton who got him to see that 'accounting was more than just bookkeeping'.²⁶ But there was also a practical reason for Canning's interest in accounting: he needed to earn his expenses, and Plimpton found him a job in which he was to help settle a large estate whose financial affairs were in disarray. That experience may have heightened his interest in accounting and valuation issues.

Two of Canning's best grades were in a pair of courses on distribution of wealth, taught by A. C. Whitaker, a visiting professor from Stanford University. Whitaker was impressed with Canning's intellect, and he was later to recommend that he be brought to Stanford.²⁷

Following receipt in June 1913 of his Bachelor of Philosophy degree in arts and literature, with honours in political economy, Canning was awarded a scholarship for graduate study, and he entered Chicago's doctoral program in political economy. During the next four years, he took graduate courses in 'special research in insurance (both law and economics), accounting, statistics, industrial management, money and banking, value, distribution, history of economic thought, population, corporation finance, investments, and with some work in cognate fields such as commercial law, political science, sociology and mathematics'.²⁸ Of his four courses in accounting,

²⁴ Information on Canning's academic work was obtained from the Registrar, The University of Chicago, and was reported in a letter from Canning to Jacob Viner, dated 20 October 1928.

²⁵ Canning's forensic ability was recognized by his peers. In *The Cap and Gown* for 1913, the student yearbook, it was said of Canning: 'If you want some one to do your arguing for you, you could not get a more efficient artist' (p. 437).

²⁶ Interview with Edward G. Nelson, 8 June 1965. Nelson (1904–72) completed his doctorate under Canning in 1932 and served on the Stanford economics faculty from 1929 to 1932 (as assistant in instruction) and from 1932 to 1941 (as assistant professor), mainly teaching the introductory accounting courses. From 1945 onward, he was at the University of Kansas. Nelson was Canning's best-known disciple (see, e.g., Nelson's articles published in 1935 and 1942), and the two men and their wives remained friends until Canning's death.

²⁷ Interviews with A. C. Whitaker (1877–1965), 12 January 1965, and with Dorothy P. (Mrs John B.) Canning, 5 December 1964.

²⁸ Letter from Canning to Jacob Viner, dated 20 October 1928.

one was given by a visiting faculty member from the University of Illinois, John Christie Duncan; two courses, in intermediate and advanced accounting,²⁹ were from Jay Dunne (AB, University of Michigan); and the fourth was an accounting principles course taught by George E. Frazer, a practitioner. The courses taken from Duncan and Frazer were as a visiting student, without a grade.

Among Canning's political economy instructors were Robert F. Hoxie in economic history, J. Laurence Laughlin (the department's founder and head professor) in money and distribution of wealth, Chester W. Wright in trusts and corporation finance, and Lewis H. Haney in the theory of value. John Maurice Clark joined the Chicago faculty from Amherst College in 1915, Jacob Viner came as an instructor in 1916, and Frank H. Knight was an instructor at Chicago in 1916–17, and Canning came to know all three. By the time of Laughlin's retirement in 1916, 'Chicago had become widely recognized as one of the nation's leading centers of academic economics' (Coats, 1963, p. 491).

On 23 December 1915, Canning married Dorothy Helen Plumb (1894–1979), a University of Chicago classmate, in a wedding held in Oklahoma City. They had three sons: John Howard (1917–83), James Gilmore (1920–44), and Thomas Norman (1921–).

During his four years of graduate study, Canning was an assistant in the department in 1914–15 and was an instructor in the College of Commerce and Administration³⁰ in 1915–17, teaching courses in elementary economics, statistics, insurance, and corporation finance. (Canning's interest in sports did not disappear: during his first two graduate years 1913–14 and 1914–15, he was the assistant football coach under Stagg.) In 1917, evidently with some coursework yet to be taken, let alone the writing of a doctoral dissertation, he accepted Stanford's offer to become assistant professor of economics. Before he could take up the appointment, however, war intervened. He served in the U.S. Army for two years, becoming a major and spending several months in France. Following his discharge in September 1919, at age thirty-four, he joined the Stanford economics faculty.

FIRST DECADE AT STANFORD UNIVERSITY: 1919–29

Involvement in Varsity Athletics

Perhaps it was just as well that Canning's arrival at Stanford was delayed until 1919, for it was in that year that Stanford revived its varsity sport of American football after having abandoned it in 1906 (as had the University of California) for rugby football, which was regarded as the less dangerous of the two football games. From 1919 to 1921, Stanford employed only a few salaried coaches and experimented

²⁹ In U.S. universities during most of the century, the sequence of financial accounting courses in a curriculum has typically been labelled as elementary (introductory), intermediate and advanced, followed by 'theory'. These terms were coined in the 1910s and are mere place-holders. Intermediate and advanced accounting signify the second and third tiers, respectively, in a course of study. As will be shown below, Canning preferred a stricter meaning of 'advanced' in matters of curriculum and textbook titles.

³⁰ In 1916, the college became a school.

with a different head coach in each year, and Canning, the one-time right guard and assistant coach under the revered Amos Alonzo Stagg, gladly filled in as the varsity line coach during the three seasons. On 2 November 1921, he gave a talk on 'Straight Football, Line Plays' as part of a university lecture series on 'The Technique of American Football', which was reported in the student newspaper to have been '[t]he best lecture Professor Canning has ever given'.³¹ It was said, however, that Murray Shipley Wildman (1868–1930), the chairman of the economics department, did not look favourably on Canning's use of his afternoons on the football field, which may have hurt his case for promotion.³² For many years, Canning also served as an official at Stanford track meets, as a timer for the races and as a judge for the high jump.³³

Development of an Accounting Curriculum

In the Stanford economics department of that day, a faculty member had great freedom to choose the courses he wished to offer.³⁴ In 1919–20, the department had only seven faculty members: Wildman (money and banking), Walter Greenwood Beach (sociology and labour economics), and A. C. Whitaker (corporation finance and foreign exchange), the full professors; Eliot Jones (railway and water transportation), the associate professor; Canning, the assistant professor; and two instructors. The departmental offerings were heavily focused on applied issues. Indeed, beginning in the *Register for 1920–21*, it was stated that, 'The courses offered in this department are not confined to the subject of Economics as properly defined, but include a number of topics often given in departments of sociology and schools of commerce' (p. 138). It was not until 1925 that Stanford launched its Graduate School of Business. The economics department was chiefly concerned with undergraduates.

In his first year in the department, Canning offered quarter-length courses in Elementary Accounting, Introduction to Statistics, Insurance, Intermediate Accounting, Business Administration, and Advanced Accounting.³⁵ The course description for Intermediate Accounting was as follows:

³¹ 'Coach Canning Gives Analysis of Play on Line' (1921). Also see 'Canning to Give Football Lecture' (1921).

³² Interview with Eliot Jones (1887–1971), 12 January 1965. Having once been a poor farm boy, Canning favoured athletics much more than most other faculty members.

³³ Canning judged the propriety of each jumper's technique and measured the precise height of the bar. He did not rely on a tape measure, but, as if he were an engineer, he verified the angles as well. Interviews with Edward G. Nelson, 8 June 1965, and with Burrell Leonard, 20 April 1995, and a letter from Thomas N. Canning to the author, dated 8 December 1994. (Leonard was a student of Canning's and was tapped by him to teach accounting systems and taxation in the Stanford economics department.) Maurice Moonitz recalls seeing Canning, probably in the 1930s, 'as an official at a California–Stanford track meet. He took his task very seriously, and kept the boys in line at the starting blocks.' Letter from Moonitz to William R. Smith, dated 2 April 1971.

³⁴ Interview with A. C. Whitaker, 12 January 1965.

³⁵ Unlike other accounting teachers, Canning used the term 'advanced' to describe the character of what was to be covered in a course. In a later review of a book entitled *Advanced Accounting*, he complained that 'None of the book is advanced in the sense of showing avenues to the professional literature or of opening vistas to the future advancement of knowledge' (1942, p. 312).

The principles of accounting common to all systems of accounts in acquisitive enterprise, developed by discussion of the information needed by the various interested persons, e.g., the stockholder, the director, the manager, the creditor, etc. Problems illustrative of theory of accountancy and problems of interpreting financial statements constitute a major portion of the work. (*Register for 1919-20*, p. 137)

From the beginning, as was evident from the description for his Advanced Accounting course, Canning was interested in two kinds of students: '(1) those who intend to become professional accountants; [and] (2) those who have chosen a future occupation and desire a knowledge of its accounting problems' (*Register for 1919-20*, p. 138). He saw one of his missions as being the attraction of qualified candidates to the public accounting profession, and from 1921 to 1929 he served as an examiner for the California State Board of Accountancy.³⁶

In the intersessions (i.e., the short term between the spring semester and summer session) of 1920 and 1921, Canning had taught at the University of California at Berkeley, where he came to know Henry Rand Hatfield (the professor of accounting) and, through Hatfield, probably also John F. Forbes, a prominent San Francisco practitioner who had been giving courses in auditing and cost accounting at Berkeley since 1913. Forbes was a progressive and activist member of the State Board of Accountancy: he was a member of the State Board from 1909 to 1951, and he was its president from 1914 to 1945.³⁷ Hatfield and Forbes had appointed themselves as 'an unofficial committee of two' to do something about the low standard of the accounting profession in California (Forbes, 1944, p. 135; Moonitz, 1986, p. 13). It seems likely that they had much to do with inspiring Canning to become an examiner for the State Board and develop a program of accounting courses at Stanford to elevate the quality of entrants into the profession, as Hatfield was doing at Berkeley.

Steadily, Canning built a complete accounting curriculum within the economics department, with courses introduced in the following years:

- 1921-2 Accountancy of Industrial Management (dropped after one year)
 - Interpretation of Accounting Reports ('A discussion of the balance sheet and of the income and expense statement from the points of view of the commercial creditor (chiefly the banker) and of the bondholder', *Register for 1921-22*, p. 145)
 - Seminar in Accountancy
 - Introduction to Auditing

³⁶ Canning's standards proved to be too idiosyncratic for the state board. The board was under pressure to pass more men, and it was felt that California should grade its own papers, and not rely solely on the grading system supplied by the American Institute of Accountants (AIA). Thus, Canning graded the candidates' papers on behalf of the board. But Canning's views on what were correct answers were not shared by several leading practitioners. Umpires were required to arbitrate the many differences between the solutions approved by the AIA and those acceptable to Canning. Two of the umpires, Scott Dunham and De Witt Alexander, who were San Francisco practitioners, tended to pass candidates who had been passed by the AIA and fail candidates whom Canning would have passed. In the event, Canning was fired. Interview with DeWitt Alexander, 11 December 1964.

³⁷ Information supplied by the Board of Accountancy of the State of California. Also see Cashion (1984, p. 5).

- 1922-3 Federal Tax Procedure
- 1923-4 Introduction to Cost Accounting (to become Cost Analysis in 1926-7)
- 1924-5 Special Work in Accounting (dropped after one year)
- 1925-6 Accounting Problems ('Methods appropriate for recording and reporting divers [*sic*] classes of transaction to which anyone is likely to be a party but which constitute the principal business of few persons. Such transactions as those between corporation and underwriter, principal and broker, bankrupt and referee and trustee in bankruptcy, trustee and beneficiary, insurer and insured (following a loss), etc., will be discussed. Liberal use will be made of problems set in recent examinations for Certified Public Accountants', *Register for 1925-26*, p. 189)
 - Elementary Theory of Accounts (dropped after one year)
 - Accounting Reports (an additional course under that title)
 - Consolidated Reports

In 1922-3, after Whitaker stopped offering the Valuation course, Canning took over its contents under the heading of Advanced Accounting, with the following description:

The valuation of fixed assets of private enterprises, and the distribution among accounting periods of costs and losses incurred in connection with investment in fixed assets. Special emphasis will be given to valuation for purposes of purchase and sale of a business, and purposes of corporate combination or reorganization. (*Register for 1922-23*, p. 164)

Canning gradually spun off several of the lower level courses to assistants in instruction, but he retained Advanced Accounting, Accounting Reports, and the Seminar for himself.³⁸

In 1925, at the end of his sixth year at Stanford, Canning was promoted to associate professor, and in the following year he installed a Division of Accountancy in the economics department. It offered a four-year course of studies leading to the degree of Bachelor of Arts in Economics and Accountancy, which could be followed by a fifth year of studies culminating in the degree of Master of Arts in Economics and Accountancy. (Such a degree title, combining economics and accountancy, was probably without precedent in the U.S.A.) Canning's program contemplated five years of university study for aspiring public accountants. 'He felt that the profession wasn't demanding enough of its members, and that no-one really could prepare himself adequately as a professional accountant in four years of college'.³⁹

Canning noted that:

³⁸ In 1926-7, Valuation reappeared, taught by Canning, and Advanced Accounting disappeared from the *Register*. Perhaps a matter of turf was at issue. It may be that Canning's promotion in 1925 strengthened his claim to the Valuation course.

³⁹ Interview with Edward G. Nelson, 8 June 1965. Canning's belief that five years of university study should be expected of those who would become professional accountants anticipated by more than four decades the policy adopted in 1969 by Council of the American Institute of Certified Public Accountants that at least five years of university study should be the standard education requirement for Certified Public Accountants. Since then, forty-five states, the District of Columbia, Guam and Puerto Rico have approved laws or regulations requiring 150 semester hours (i.e., five years) of study for future CPAs.

The present stage of university training for accountancy . . . is still far from satisfactory. To judge by published curricula, relatively too much emphasis is given to routine accounting procedure and too little to the substantive problems with which the student will have to deal as a principal when he is ten years out of school. Too little attention seems to be given also to training in those fundamental subjects that, in the academic world at least, are often supposed to lie quite outside the subject of accountancy.

Professional curricula that include as required work enough mathematics to enable the student to read critically the best of modern statistical publications are seldom found. Very few appreciate the fact that the subject matter with which the accountant deals bristles with unsolved, and largely undiscerned, problems that require for their solution a better foundation in mathematics than any but few accountants possess. (1929b, p. 329)

He also wrote that: 'To judge both by the writings and by the procedure of accountants, one must conclude that a fuller knowledge of law would often lead to material betterments in their classifications and valuations, and would also cause them to be more cautious about unqualified certification' (1929b, pp. 329-30). Some years later, Canning gave voice to his complaint of the rudimentary knowledge of accounting possessed by practical people and even by accountants:

Accountancy has been called the language of enterprise. If it is, most business men, engineers, and economists are illiterate in that language. Some confess that accounting is a mystery to them; many others profess a knowledge of the subject but are none the less ignorant of it. Many others, including some accountants, know a great deal *of* accounting, in the way in which an assiduously trained parrot may know a great deal of English, without knowing much *about* accounting. (1933b, p. 65)

The program of studies in the Division of Accountancy reflected Canning's view that the study of accounting should be structured on the three pillars of mathematics, law and economics⁴⁰:

Nature and Purpose.—The Division of Accountancy is created to administer a professional training course in Accountancy. The course attempts to organize the existing facilities of instruction in the University in such a way that the body of knowledge necessary to the competent practice of accounting can be most readily acquired. That body of knowledge includes: (1) a sound foundation in general mathematics and statistical method; (2) a ready and full command of certain commercial branches of private law; and (3) a real understanding of the conduct of men in their business relations and of the public problems arising from economic behavior. To this substantive knowledge must be added modes of procedure adequate for the highly specialized statistical work that constitutes the principal work of the accountants' calling. (*Register for 1926-27*, p. 346)

The first and second years' studies included Elements of Accounts (expanded from one to two quarters, with a concomitant dropping of Intermediate Accounting), Cost Analysis, Elementary Economics, Introduction to Political Science, and three

⁴⁰ Canning traced his early belief in the importance of studying economic theory to 'an extemporaneous address [by Professor David Friday] to a class in elementary accounting of which I was a member [in which] he said in effect that the professional public accountant can lay no more secure foundation for the theory and practice of his profession than by acquiring a thorough familiarity with general economic theory' (1929a, p. 1). Friday (1876-1945), who was on the University of Michigan economics faculty, had been one of William A. Paton's teachers. As will be seen below, in this same article (1929a) Canning seriously questioned his article of faith that traditional economic theory was useful to the professional accountant.

to four courses in mathematics and statistical method. In the third year, students would take courses in Public Finance, Taxation, Corporation Finance, Accountancy of Investment (a course that Whitaker had been teaching for some years and which, one supposes, was modelled on Charles E. Sprague's book of the same name), Valuation, Federal Tax Procedure, Money and Banking, and Foreign Exchange. When, in the spring quarter of 1927, Canning revived the Valuation course once taught by Whitaker, he gave it the following description:

The valuation of operating assets, of the liabilities, and of the proprietary interests in private enterprises; the relating of anticipated outlay costs of operation to the problem of present valuation. Emphasis is given to the theories of depreciation, depletion, and obsolescence of assets, and to the valuation of goodwill. (*Register for 1926-27*, p. 343)⁴¹

Fourth-year courses included Principles of Economics, Public Utilities, Auditing, Capital and Income, and either Business Law or Contracts and Agency. The course with the intriguing title, Capital and Income, was offered for the first time in the spring quarter of 1927 and was, of course, taught by Canning. The course description was as follows: 'A critical review of the economists', the lawyers', and the accountants' views of the nature of capital and income. Based on Irving Fisher's *The Nature of Capital and Income*' (p. 344).

In the master's year, the students' program would include (a) four courses in the law school curriculum (Bills and Notes, Bankruptcy, Private Corporations, and Municipal Corporations) and (b) any advanced accounting courses not already taken. Applicants for the degree were also expected to take an oral examination and submit a 'credible thesis' (pp. 344-5). While it was reported that, in 1926, 'at least sixty [colleges and universities] accept accounting as a major towards a bachelor's degree and thirty allow it as a major for a master's degree' (Allen, 1927, p. 163), Stanford's broad interdisciplinary base was unique.

Also in 1926-7, the two Accounting Reports courses were retitled and restructured, one focusing on financial issues and the other on internal management, with the following descriptions:

Financial Reports.—A discussion of the character of reports necessary to a proper control of the finances of private enterprises; corporate issues; dividend policy; borrower-depositor relations with banks; trade credit policy; etc. The statistical analysis of financial statements will be the mode of procedure.

Operating Reports.—A discussion of the character of reports essential to the proper management of a concern with respect to internal operations; particularly the problems of inventories, of manufacturing and of purchasing, of labor turnover, and of budgetary control. (*Register for 1926-27*, p. 345)

By 1927-9, Canning was himself offering Cost Analysis, Valuation, Capital and Income, Accounting Problems, Financial Reports, and the Seminar in Accounting. One could easily appreciate how this ambitious teaching program would distract Canning from the timely completion of his doctoral thesis. (See below for a discussion of Canning's thesis work.)

⁴¹ In 1931, the Valuation course was expanded to cover two quarters, and, beginning in 1933, Canning imposed a calculus prerequisite on students taking the course.

Jackson and Robbins become accounting instructors

J. Hugh Jackson (1891–1962), who had joined the fledgling Graduate School of Business in 1926 from the Harvard Business School,⁴² offered a new course, Auditing and Accounting Procedure, in the spring quarter of 1927. Jackson, who held a Harvard MBA and was (unlike Canning) a CPA, was a protégé of George O. May's and had spent several years at Price, Waterhouse & Co. in New York, giving instruction to younger staff and conducting research. In 1923, he published a book entitled *Audit Working Papers: Their Preparation and Content*. He was an active member of the American Association of University Instructors in Accounting (AAUIA), predecessor of the American Accounting Association. From 1924 to 1927 he was the association's vice-president, and in 1928–9 he served as its president.

Jackson, the practical man with an ambition to run organizations, and Canning, the rigorous theorist and a loner, were not easy colleagues.⁴³ As Canning saw it, Jackson was interested in the accounting process, while Canning was interested in why accounting functions as it does.⁴⁴ One departmental colleague said that Canning was 'very much the intellectual, and Jackson wasn't'.⁴⁵ Among other things, Canning and Jackson disagreed on the suitability of topics for accounting doctoral dissertations.

Carl B. Robbins (1902–74), who had received his AB, AM and PhD degrees from Stanford, joined the department as an instructor in 1927 immediately after completing an MBA at the Harvard Business School, and he gradually began to help out with some of the accounting courses. Robbins had completed a master's thesis under Canning's direction on the problem of par value, which he expanded into a book on no-par stock (1927), which in turn was accepted as his PhD dissertation in 1928. He offered Federal Tax Procedure and Operating Reports, and in 1929 he gave a new course, Elements of Cost Accounting. Robbins, who remained on the economics faculty until 1933, having risen to the rank of

⁴² Jackson's initial appointment at Stanford was as a visiting professor from Harvard, on whose faculty he had been serving since 1923. After the year as visitor, he resigned from Harvard to remain at Stanford. From 1931 to 1956, he was dean of the Graduate School of Business. In 1931–2, Edward G. Nelson began offering the Auditing and Accounting Procedure course, as Jackson no longer had the time.

⁴³ Canning had little regard for the Graduate School of Business. In his view, the school was giving Stanford's financially well-off students a 'cram course' in what they would have studied as undergraduates in Canning's AB program, with the addition of two years and the concomitant expense. Interview with Burrel Leonard, 20 April 1995. (For a history of the early years of the Graduate School of Business, where it is stated that 'Stanford's economics faculty remained indifferent' toward the School at the time of its founding (p. 23), see Gleeson *et al.*, 1993, pp. 23–30, 34–5.)

⁴⁴ Interview with Thomas N. Canning, 16 October 1994.

⁴⁵ Interview with Edward S. Shaw, 7 December 1964. Shaw (1908–94) was a student of Canning's who joined the economics faculty in 1929, and for three years taught elementary accounting until, at Bernard F. Haley's suggestion, he turned his attention to money and banking, a field in which he built a large reputation. (Murray S. Wildman, who died in December 1930, had been the department's specialist in money and banking.) Interview with Edward G. Nelson, 8 June 1965.

associate professor in 1930, became the closest to Canning of any departmental colleague. Canning later said that he regarded Robbins as the ablest of his former students.⁴⁶

The establishment of a Division of Accountancy within the economics department was, according to Nelson, viewed with ambivalence by Canning's colleagues. On the one hand, they admired his intellect, Whitaker above all. But, on the other, most of the faculty felt that the only accounting knowledge one needed in economics was a bit of bookkeeping, mainly to understand money and banking and business cycles.⁴⁷ Some of the economics faculty, it was said, were 'tiring' of all of Canning's accounting courses, even though they respected his judgment.⁴⁸ At that time, Stanford could not make up its mind whether the training to become a CPA belonged in the economics department or in the Graduate School of Business.⁴⁹ As Nelson wrote:

Canning didn't have many supporters in the economics department. Accounting was not a reputable subject for academic study among the Stanford economists during the 1930s. It was taught in the economics department as a service to undergraduates, to support the study of money and banking, and in deference to Canning.⁵⁰

Yet, in the minds of some members of the department, two factors weighed in favour of the Division of Accountancy: that it had been developed step-by-step, and not all at once; and that, while the enrolment in upper level accounting classes was small, it was composed of some of the best students in the department.

Canning as a Teacher

Canning was anything but a dramatic teacher. He talked slowly, carefully choosing his words, and developing his thoughts as he proceeded, as often as not with his back toward the class. He was not interested in whatever textbook he was using, but in applying theories of capital and price so that accounting information would yield a more rational basis for business decisions. It was said that he was often difficult to follow in the classroom, but that his best students, their intellects challenged, would seek him out for a better understanding of his ideas. He would give any amount of time to students in individual discussion, which, together with the considerable effort he would invest in the work of committees, were said to be

⁴⁶ Letter from Canning to Irving Fisher, dated 2 November 1940.

⁴⁷ Interview with Edward G. Nelson, 8 June 1965. Canning was hardly alone among those who taught accounting courses in American universities to be viewed with a jaundiced eye by their colleagues in economics and other discipline departments. The motivation behind Henry Rand Hatfield's famous variation on an *apologia pro vita sua*, 'An Historical Defense of Bookkeeping' (1924), was the 'implied contempt of our colleagues, who look upon accounting as an intruder, a Saul among the prophets, a pariah whose very presence detracts somewhat from the sanctity of the academic halls' (p. 241).

⁴⁸ Interview with Eliot Jones, 12 January 1965.

⁴⁹ Interview with Edward G. Nelson, 8 June 1965.

⁵⁰ Letter from Edward G. Nelson to William R. Smith, dated 19 April 1971.

reasons why progress on his Chicago dissertation was delayed.⁵¹ Canning would take a keen interest in his students' careers. He helped many of them find jobs, and he encouraged them to work in accounting. It was said that 'he was extraordinarily kind toward his protégés'.⁵² Two of his disciples, Robbins and Nelson, stayed on to teach in the accounting program.

As Bernard F. Haley described it, the program in accounting 'was essentially a one-man show'.⁵³ Roy W. Jastram, who joined the economics faculty in 1936, said that nobody in the department 'gave a damn' about accounting, but they respected Canning a great deal.⁵⁴ No-one who taught in the accounting program, other than Canning, Robbins and Jackson (whose principal appointment was in the Graduate School of Business), rose above the level of assistant professor. It was said that the economics department was highly selective in making appointments to full professor, and that the salary structure was especially ungenerous at the lower levels.⁵⁵

Walter B. McFarland, who took advanced work under Canning in the 1930s and completed his dissertation under Canning's guidance, wrote:

Since I had reached a more mature age as a doctoral candidate, I found Professor Canning's courses to be stimulating and filled with new ideas. The undergraduates generally found them dull. No problems or paper work were assigned and the only examination was the final. Professor Canning explained the absence of problems to some of his students by saying that the only aspects of accounting definite enough to make good problems were not important enough to occupy the student's time.⁵⁶

Robert D. Calkins, who took an AM at Stanford, became attracted to Canning in a course taken in the latter 1920s 'when I was much impressed with his approach to accounting and his tributes to Irving Fisher, who was being pooh-poohed by most economists as a nut with mathematical ability. A seminar convinced me that Canning had much to offer.' Calkins added:

Canning was a man of complete integrity, with no trace of vanity or pompousness, and with no discernible interest in honors or ceremony. He dressed in tweedy fashion, he

⁵¹ Interviews with Edward S. Shaw, 7 December 1964; with Bernard F. Haley, 5 January 1965; with Eliot Jones, 12 January 1965; and with Eugene L. Grant, 12 January 1965. Haley (1898–1993), who joined the economics faculty in 1924, had received AB and AM degree from Stanford in 1922 and 1923, respectively, during which he took Canning's insurance course. Grant (1897–1996), who came to Stanford in 1930 on the civil engineering faculty and later established a pioneering curriculum in engineering economics, sat in on Canning's Valuation course. It was said that Canning could work best with the students in the top 10 or 20 per cent of his upper-level classes. Interview with Edward G. Nelson, 8 June 1965.

⁵² Interview with Edward S. Shaw, 7 December 1964.

⁵³ Interview with Bernard F. Haley, 5 January 1965.

⁵⁴ Interview with Roy W. Jastram, 18 January 1965.

⁵⁵ Interview with Edward G. Nelson, 8 June 1965.

⁵⁶ Letter from Walter B. McFarland to the author, dated 15 July 1965. Canning was an influential adviser on McFarland's doctoral dissertation, which was chaired by J. Hugh Jackson. McFarland (1908–83) joined the research staff of the National Association of Cost Accountants in 1946 and managed its research activity from the mid-1950s to the early 1970s, when he retired.

liked bridge and social engagements with interested friends, but shunned the limelight . . . He gravitated to persons with challenging ideas, whose intellectual powers he could respect.⁵⁷

Edward S. Shaw, a Stanford economics colleague who had a deep admiration for Canning, wrote,

As a student of his, mainly but not entirely at the undergraduate level, and as a friend, I found him a fine, charming and brilliant person. There was little in Economics west of Chicago to compare with him in professional skill.

Canning felt his intellectual debt to Fisher in so far as the theory of capital is concerned. He understood the potentialities of statistics and econometrics for economics and so established a close relationship here with Harold Hotelling and Holbrook Working. His concern in agricultural economics [which began to build in the 1930s] was deep, and he maintained it through friendship with Henry Schulz, Joseph Davis and Merrill Bennett at Stanford and people at the Giannini Foundation of the University of California.⁵⁸

Even though one former student said that 'Canning was regarded by students, with little justification, as a tough teacher',⁵⁹ one of his doctoral students once said, 'Canning gave a mid-term, and the class average, as usual, was zero'.⁶⁰ Another of his students was overheard as saying that Canning was 'fantastically smart and a tough S.O.B.'.⁶¹

Canning maintained a remoteness and a certain formality in academic and professional settings, but he could relax, enjoy stories, and play an expert hand of bridge at social gatherings. He was one of about fifteen Stanford faculty members and townspeople who belonged to a discussion group known as the Saturday Morning Club. The meetings would begin on Friday evening and continue into Saturday morning. Papers were presented and the discussion was wide-ranging. Canning's interests were broad, and he was a member of a number of interdisciplinary discussion groups over the years.⁶²

Progress on His Chicago Doctorate

During his first decade at Stanford, Canning invested an enormous amount of time and creative energy in the development of the department's ambitious accounting

⁵⁷ Letter from Robert D. Calkins to the author, dated 4 October 1965. In 1929–30, Calkins (1903–92) was an assistant in instruction and taught Elements of Accounts. After leaving Stanford, he obtained a PhD from the College of William and Mary and eventually became dean of the business schools at the University of California at Berkeley and at Columbia University and then served as president of The Brookings Institution.

⁵⁸ Letter from Edward S. Shaw to William R. Smith, dated 19 April 1971.

⁵⁹ Letter from Armen A. Alchian to William R. Smith, dated 1 May 1971. Alchian (1914–) received his AB from Stanford in 1936 and then enrolled in the PhD program.

⁶⁰ Letter from Maurice Moonitz to the author, dated 23 December 1994. Moonitz (1910–) taught accounting on the Stanford economics faculty from 1942 to 1944, while Canning was on leave. Moonitz never met Canning.

⁶¹ Letter from Thomas N. Canning to the author, dated 8 December 1994.

⁶² Interview with Joseph S. Davis (1885–1975), 28 June 1965. Davis was director of Stanford's Food Research Institute from 1921 to 1952.

program, and, until the arrival of Jackson in 1926 and Robbins in 1927, he and a rotating corps of assistants in instruction had offered all of the courses. Progress on his Chicago doctorate was steady but slow. During 1920–2, he took nine graduate courses at Stanford, several of which were applied to his Chicago degree. Three of the courses were in the law school: Municipal Corporations, Bills and Notes, and Private Corporations. Others were a course in the history of political theory, a reading course in German, an economics course intended for teachers of commercial subjects, a graduate seminar in the research problems of valuation, and, importantly, a pair of courses on recent economic theory and the economics of overhead costs (with grades of A and A+, respectively) given by John Maurice Clark, who was at Stanford in 1922–3, on leave from Chicago.⁶³ Clark's seminal *Studies in the Economics of Overhead Costs* was published in 1923.

During the summer quarter of 1924, when Canning was visiting as an assistant professor there, the Chicago economics department (probably much influenced by Clark) exempted him from the written examinations for the doctorate. In 1927, Chicago gave him credit for passing the two foreign-language examinations based on confirmations received from Stanford's departments of French and Germanics. Hence, the only remaining requirements for the degree were the dissertation and the oral examination.

The topic Canning chose for the dissertation was a critical analysis of accounting practice and the development of a model to base accountants' measurements on sound economic reasoning. As a statistical economist, he was intrigued by the wealth of empirical data provided by accounting. As he systematically constructed his accounting curriculum during the 1920s and offered an increasing number of the courses, Canning would have acquired a precious insight into the literature on accounting orthodoxy for the first part of his thesis. As noted above, the second part was profoundly influenced by Irving Fisher's *Nature of Capital and Income* (1906).

Finally, in a letter dated 20 October 1928 to Jacob Viner at Chicago, Canning submitted his 'book' (since it had already been accepted for publication by The Ronald Press Company) as his doctoral dissertation and inquired whether he could take his oral examination over the Christmas holidays, as he was coming east to read a paper at the annual meeting of the AAUIA, to be held on 27–8 December in Chicago.⁶⁴ Canning recounted the history of his book, which was to carry the title *The Economics of Accountancy: A Critical Analysis of Accounting Theory*

⁶³ Information was supplied by the Office of the Registrar, Stanford University, and is also based on the letter from Canning to Jacob Viner, dated 20 October 1928. Viner (1892–1970) was on the University of Chicago economics faculty throughout the 1920s.

⁶⁴ Canning became a member of the AAUIA in 1926. (Letter from Dorothy P. [Mrs John B.] Canning to the author, dated 28 February 1965.) J. Hugh Jackson, who joined the Stanford faculty in 1926 and was active in the AAUIA, may have played a part in Canning's decision to join, although it seems more likely that the impetus came from William A. Paton or Henry Rand Hatfield. The paper Canning read at the AAUIA annual meeting was 'Some Divergences of Accounting Theory from Economic Theory' (1929a), in which he contrasted the perspectives and approaches of the economist with those of the professional accountant (see below for further discussion of this article).

(1929b), and in his letter the pangs of authorship were everywhere evident. Canning was one who demanded precision in his writing.⁶⁵ He wrote to Viner as follows:

The reading and research specifically underlying the book began in 1920. When J. M. Clark was at Stanford for a year I discussed my plans with him at some length. In the summer of 1924 when I was at Chicago, he read some 300 pages of a rough draft manuscript. In conference with him and in his written notes, he expressed a general approval. He also gave me many constructive suggestions with respect to the then contemplated writing. Later in the year I did rewrite it—with the usual multitude of alterations. I decided then to let the ms. 'rest' for a few months. After that 'mulling period' I decided that, whether it was acceptable to the [Chicago] Department or not, I could not give it my own approval. I therefore scrapped the entire writing and continued my studies with, I think, good effect. The present writing, though upon the same subject considered from nearly the same point of view as that which I discussed with Clark, is so very different in form, organization, and content that I should like to have it considered as though no preliminary writing had been submitted. Clark's going to Columbia [in 1926] makes that necessary anyway, I should suppose. Moreover, the audience addressed is a different one; and the book is to be published.

Further along in Canning's letter, the Yale economist Irving Fisher (1867–1947), his mentor by long distance, enters the picture⁶⁶:

I have had, already, the benefit of full critical reading by Mr. Carl B. Robbins and Miss Margaret Milliken [an instructor in statistics] of our department at Stanford. Professor Irving Fisher and Doctor Royal Meeker (who was working with Fisher this summer) have given me the benefit of full critical notes on Chapter VIII. At present Fisher is reading four other chapters (in carbon copy).

In Canning's Preface to the book, he wrote: 'I need not declare my obligation to Professor Fisher for the influence of his writings upon my thought—that obligation appears throughout the whole book' (1929b, p. iv). In his letter to Viner, he continued as follows:

In returning Chapter VIII of my manuscript, Fisher asked permission to quote rather extensively (some ten or twelve pages) in the forthcoming revision of his *Rate of Interest*. In order to enable him to do so, I sent the unfinished ms. to the Ronald Press Company for inspection and approval. I have a contract with them which requires me to have the full copy in their hands by January 1, 1929. Since the Ronald people and I have assented to Fisher's quoting and since Fisher's copy has gone to the printer, I am no longer free to make any alterations (in the text to be printed) of Chapter VIII. You may be interested to know that Fisher accepts and adopts what he is pleased to call my constructive criticisms. In his own manuscript of the revised introduction to his book, he has even followed the suggestion, accredited to me, that his theory of income should be developed in substantially the reverse order of concepts. I shall send you, later, his comments.⁶⁷

⁶⁵ Interview with Edward G. Nelson, 8 June 1965.

⁶⁶ Evidently, Canning met Fisher sometime in the 1920s at an annual meeting of the American Economic Association, and they engaged in a vigorous correspondence. But Fisher did not convey any views on Canning's evolving dissertation until he saw the completed manuscript. Interview with Dorothy P. (Mrs John B.) Canning, 5 December 1964. This Canning–Fisher correspondence has not survived.

⁶⁷ Fisher wrote an admiring review article of Canning's book in *The American Economic Review* (1930b). In *The Theory of Interest*, his revision of *The Rate of Interest* (1907), Fisher (1930a, pp. 507–8) quoted about 600 words from Canning's book, and, in two of the three extracts taken from the book, Canning lauded Fisher's *Nature of Capital and Income* (1906).

To be sure, Canning was already an associate professor at Stanford. But how much more self-confidence, indeed hubris, can a doctoral candidate exhibit? He presented the University of Chicago's economics department with a finished book: without a supervisor, without previous notice of its contents (other than to Clark, who had left), and with a deadline some two months hence for delivery of the book to the publisher.⁶⁸ Nonetheless, impressed with the work, the department accepted Canning's book as his doctoral dissertation.⁶⁹ The oral examination was successfully held on 15 December, chaired by labour economist Harry A. Millis,⁷⁰ and the Doctor of Philosophy degree was conferred on 11 June 1929, in Canning's forty-fifth year of age.

How did Canning's book, which was published later in the year (the Preface is dated 10 September 1929), come to the attention of Ronald Press, the most enterprising publisher of books in business and accounting? William A. Paton, who had written two books for Ronald Press and was regarded highly by its president, Philip J. Warner, claims the credit. Paton gave the manuscript his strong endorsement and urged Canning, ever the perfectionist, to publish it without undertaking further revisions.⁷¹

How did Paton come to know Canning? Jacob Viner suggests that Paton and Canning met at Chicago: 'I seem to recall that W. A. Paton, now professor emeritus at Ann Arbor, knew Canning well. Paton had some contacts with our Dept. and I associate him with Canning as seeking to marry economics with accounting, a project which in principle at least all the Department looked upon with sympathy, if not with unqualified optimism.'⁷² In fact, Paton taught at Chicago during the summer of 1924, when Canning was also a visitor there, and both were attached to the School of Commerce and Administration.⁷³ Paton surely knew Canning by 1926, because, as editor of *The Accounting Review*, he invited him to do a book review, which was published in the December 1926 issue.

⁶⁸ Nelson recalls, however, that the Chicago economics faculty, evidently during Canning's visit there during the summer of 1924, 'greatly encouraged' him to move ahead with his line of research for the thesis. Interview with Edward G. Nelson, 8 June 1965.

⁶⁹ At that time, the University of Chicago required that doctoral dissertations not only be submitted and approved but also be published. Information supplied by the Department of Special Collections, Regenstein Library, University of Chicago.

⁷⁰ In 1928–9, when Canning submitted his completed dissertation, Millis was chairman of Chicago's department of economics, which probably explains why he chaired the examination committee.

⁷¹ Letter to the author from William A. Paton (1889–1991), dated 6 August 1965. In a letter to the author dated 15 July 1965, Walter B. McFarland wrote that Paton 'once told me that "Economics of Accountancy" was published only after he [Paton] had urged very strongly that the manuscript ought to be published at that time. He expressed the opinion that in the absence of such pressure, the book would probably never have been published.' Philip J. Warner, in an interview on 26 May 1965, recalled that Paton had 'probably' recommended the Canning manuscript to Ronald.

⁷² Letter from Jacob Viner to the author, dated 26 January 1965.

⁷³ Paton taught a course in accounting theory, and Canning offered a course on the valuation of fixed assets (*Annual Register of the University of Chicago 1923–1924*, 1924, p. 475).

The Economics of Accountancy earned Canning the Beta Alpha Psi Book Award for the most notable contribution to the accounting literature for the year ending 1 May 1930. Ironically, the runner-up book was J. Hugh Jackson's *Auditing Problems* (1929) (Sheldahl, 1982, p. 473). In later years, Ronald Press tried several times to persuade Canning to revise *The Economics of Accountancy*, but without success.⁷⁴

FROM 1929 TO 1941

Developments in the Early 1930s

Stanford promoted Canning to full professor in 1930, the year after he received his doctorate and his book was published. The department had been slowly expanding: Canning was one of six full professors (including Wildman, Jones and Whitaker), and there were three associate professors (including Robbins) and two assistant professors, together with two instructors, a lecturer and seven assistants in instruction (including Calkins, Nelson and Shaw).

It was reported in 1929 that Canning 'is engaged in writing an introductory text in accounting and is assisting Carl Burton Robbins in preparing a book on certain phases of the financial problems of corporations for the Ronald Press Company'.⁷⁵ Neither of these projects achieved fruition.

Although it seems that Canning's only appearances at annual meetings of the AAUIA were in 1928 and 1930, when he read papers,⁷⁶ such was his standing that AAUIA President Howard C. Greer invited him in 1932 to serve on the newly created Council on Accounting Research, which was intended to suggest and guide research on accounting problems. Canning accepted the invitation. He and Henry Rand Hatfield were the only council members, numbering nineteen, who were not from the East or Middle West. The council never fulfilled its ambitious aims, but it was one of a series of initiatives that foreshadowed the reorganization of the AAUIA as the American Accounting Association in 1935-6 (Greer, 1932; Zeff, 1966, pp. 34-5).

Canning was actively involved in the early years of the Econometric Society, which was founded in 1930. Together with Holbrook Working, a lecturer on the Stanford economics faculty, he was in charge of the program for the society's 1934 summer meeting in Berkeley. Canning also founded the society's committee on instruction in statistics and was its chairman until 1938.⁷⁷ An article by Canning, 'A Certain Erratic Tendency in Accountants' Income Procedure', appeared in the inaugural issue of *Econometrica* (1933a), the society's journal. It was to be Canning's last article on accounting published in a journal. In addition, he had a paper on Fisher's income concept published in a conference proceedings volume (1933b), and he wrote reviews of several books on accounting in later years.

⁷⁴ Interview with Dorothy P. (Mrs John B.) Canning, 5 December 1964.

⁷⁵ *Annual Report of the President*, Leland Stanford Junior University (November 1929), p. 369.

⁷⁶ Also at the 1930 annual meeting, held in Cleveland, A. C. Littleton presented Canning with the Beta Alpha Psi Book Award.

⁷⁷ Interview with Holbrook Working, 12 January 1965.

Beginning in 1930–1, and for ten years thereafter, Canning offered a course on Index Numbers, in which he used Fisher's book of the same title. It was a course in statistics which, Nelson recalls, 'went far beyond anything that Fisher had ever done'.⁷⁸ Canning believed that statistics transcended disciplines as an important tool of analysis in doctoral research, and he was a leader in the early 1930s in securing acceptance of statistics as a minor field in the University's PhD programs.⁷⁹

Canning's 'Some Divergences' and Two Book Reviews on Accounting

Canning's articles and book reviews were, like his book, examples of precise expression, crafted analysis and deep thinking, with the occasional appearance of a well-turned phrase. His under-appreciated article, 'Some Divergences of Accounting Theory from Economic Theory' (1929a), can be regarded, in effect, as an introductory essay to his book. In the article, he explained how Fisher, who was trained in mathematics, would appeal to Canning, who was schooled in statistics. Referring to Fisher's *Nature of Capital and Income* (1906) and *Rate of Interest* (1907), Canning wrote: 'Here is a qualitative analysis in a quantitative dress' (1929a, p. 7). In his article, Canning confessed that he had lost confidence in the usefulness to the professional accountant of mainstream economic theory—'those brands professed by the classical economists, and by Jevons, Marshall, Cannan, Taussig, Seligman, Ely, and a host of others' (p. 1). He did see hope in 'a wholly new and wholly different kind of economic theory . . . [which] exists in fragmentary form only . . . [and] consists of inquiries into the statistical relations of one real statistical series to another' (p. 7). This article was perhaps the best attempt in the accounting literature to contrast the work of the accountant with that of the economist.

Canning's book reviews were penetrating and critical. In his review of MacNeal's 1939 polemic, *Truth in Accounting*, he disparaged the author's facile reliance on 'acceptable' markets and price imputations. In the end, he counselled that 'truth may be both expensive and useless' (1939, p. 758), probably one of the early mentions of the cost of information. Three years later, on leave from Stanford, he found time to skewer Paton for the 'presence of mere number-juggling in the dress of theory' (1942, p. 313) in the author's *Advanced Accounting* (1941).

Canning did not write much on accounting in the periodical literature, but these writings repay a careful reading.

Canning's Expanding Interests in the 1930s

Canning was attracted to problems and issues of current import, and in the 1920s his concern was with upgrading the accounting profession. In the 1930s, he became preoccupied with the social and economic problems of the Depression and, eventually, of the approaching war. His strong social conscience, engaged by the severe unemployment during the Depression, caused him to become an ardent

⁷⁸ Interview with Edward G. Nelson, 8 June 1965.

⁷⁹ Interview with Eugene L. Grant, 12 January 1965. Canning served on the University's Academic Committee on Graduate Study in 1933–4 and again from 1935 to 1938.

supporter of the New Deal.⁸⁰ Indeed, during the 1930s, as one former colleague recalled,

Canning was regarded by business circles in San Francisco as something of a radical. I do not now know what the basis of this was, but it could have been his support of social security and unemployment insurance. At any rate, [Stanford President Ray Lyman] Wilbur apparently received a number of letters complaining violently about Canning, some of which threatened to cut off financial support from the university if something were not done to keep Canning quiet.⁸¹

An apt summary of Canning's several areas of concern during the 1930s and in 1940–1 appears in the Memorial Resolution written by a committee of Stanford colleagues chaired by Bernard F. Haley, with Karl Brandt and Paul R. Farnsworth as the other members, shortly after Canning's death in 1962:

One of these areas was that of fiscal policy. Professor Canning was one of the economists very early to recognize the important part to be played by government spending and an unbalanced budget in reducing the severity of [the] depression and facilitating recovery. In December 1932 he presented a paper (with E. G. Nelson, a colleague) at the annual meeting of the American Statistical Association on 'Budget Balancing versus Trade Stabilization', and followed it with an article in the *American Economic Review* (March 1934), and testimony before the U.S. Senate Committee on Finance.

Second, he became actively concerned with the system of unemployment insurance and social security that was beginning to emerge at the federal and state levels. He served as a member of the Advisory Committee of the San Francisco Chamber of Commerce on Unemployment Reserves and Insurance, and as consultant to the California Joint Legislative Committee on Unemployment Insurance in 1934–35. His research program shifted to concentrate on problems of unemployment insurance and social security. He continued his consulting work in this field in succeeding years, and published several papers bearing on it.

Third, when the California Medical Association became interested in health insurance about 1934, Professor Canning was called upon to serve as a member of the Advisory Board and as economic adviser to the Medical-Economic Survey carried out by a committee of the Association. This work continued in the years 1935–36.

Fourth, late in the '30's, Professor Canning turned to an area of economics which was to engross his full attention for the remainder of his professional career: agricultural policy. As the Second World War became imminent, an interest which he already had in problems of agricultural labor in California led him to a concern with the national agricultural policy and the food supply in time of war. Between 1939 and 1941 he wrote a number of papers in this area, participated in two national conferences called respectively by the President and the Department of Agriculture, and served as economic consultant to the Secretary of that Department. Finally, in the spring of 1941 he took leave of

⁸⁰ Interview with Bernard F. Haley, 5 January 1965.

⁸¹ Letter from W. Allen Wallis to William R. Smith, Dated 6 May 1971. Wallis (1912–98) was a member of the Stanford economics department from 1938 to 1946. He later became dean of the University of Chicago business school and president of the University of Rochester.

Joseph S. Davis, in a letter dated 6 August 1971 to William R. Smith, wrote: 'J. B. [as Canning was known by his colleagues] was a truly independent thinker, with a restless but penetrating mind . . . He was always ready to break new ground, regardless of consequences. It led him occasionally into paths that some of us could not follow: I recall his activity in a Teachers' Union; a colleague recalls (as I do not) his support of Harry Bridges.' Bridges, an alleged communist, was the leader of the longshoremen's strike in May 1934 that virtually shut down the city of San Francisco.

absence from Stanford and moved to Washington so that he could devote full time to his work as economic adviser to the Secretary.

Carl Robbins had preceded Canning to Washington, and he was probably responsible for Canning's move there. The Memorial continues:

During his years at Stanford previous to the war Professor Canning participated in a variety of extracurricular activities in all of which he took a leading part: the Pacific Coast Economic Association, for which he edited the *Proceedings* [during the years 1932–5] and of which he was president [in 1937]; the Social Science Research Conference of the Pacific Coast, of which he was president in 1936–37; the section on industrial relations of the Commonwealth Club of California, for which he served as chairman for many years in the '30's; and the Western Farm Economic Association.

Canning's expanding interests in the 1930s may have influenced the selection of a dissertation topic by one of his junior accounting colleagues. In 1941, Edward J. Kelly completed a thesis under Canning entitled 'A Case Study of Hospital Costs', which was an examination of the practices in three area hospitals.

The Gradual Displacement of Canning's Focus on Accounting

Inevitably, as Canning's interests and energy shifted in the 1930s, his devotion to the accounting profession began to wane. In the *Register for 1934–35*, Capital and Income, which he had taught in every year since 1926–7, no longer appeared and was not seen again.

The Master of Arts in Economics and Accountancy degree, which had been part of Canning's accounting program since 1926, disappeared from the *Register* in 1934–5, and it was not mentioned again. In fact, the degree had been granted only three times, once each in 1930, 1931 and 1932.⁸² The Bachelor of Arts in Economics and Accountancy degree was awarded annually to between three and fourteen graduates from 1926–7 to 1941–2, the last year for which figures were published in the *Register*.

In 1936–7, a significant change occurred in the stated objective of the Division of Accountancy, suggesting that Canning no longer viewed the preparation of entrants into the accounting profession as his principal aim. In the *Registers* from 1926–7 to 1933–4, its objective was given as follows: 'The Division of Accountancy is created to administer a professional training course in Accountancy'. In the *Registers for 1934–5* and 1935–6, the statement was even stronger: 'The sole object of the Division of Accountancy is to administer a course of study in certain subjects a knowledge of which is requisite to competency in professional accounting'. Beginning in the *Register for 1936–37*, however, the description reflected a diminished role for professional accounting, as follows:

The sole object of the Division of Accountancy is to administer a program of instruction appropriate for the systematic quantitative analysis of economic relationships in private

⁸² The degree recipients were, respectively, Tetsuo Hayashi, Arthur N. Lorig and Robert C. Sutro. Hayashi translated Canning's *Economics of Accountancy* into Japanese for publication in 1930, but the book never appeared.

enterprise . . . The program is one in accountancy only in the sense that the principal *de facto* mode of quantitative analysis of economic relations is the mode adopted by accountants. Though the undergraduate program is one suited to those who intend to become responsible accountants *it does not purport to be a training course for any one professional vocation*. It is equally suited to serve the needs of those who expect subsequently to become professional students of law, economics, or business or to become fiduciaries in private enterprise (pp. 469–70; emphasis added).

Towards the end of the 1930s, by which time Canning was immersed in broader social and economic policy issues, the number of accounting courses diminished by several: the two Reports courses and the consolidations course had been dropped and, in 1939–40, the Cost Analysis and Valuation courses were combined into one. There was an attempt, however, to broaden the accounting curriculum: between 1934 and 1940, an Accounting Systems course appeared in the *Register*, taught by an assistant in instruction, although it was actually offered in only three of the six years. Yet Canning maintained an active interest in the accounting program and continued to teach his favoured courses.

Increasingly in the 1930s, Canning began to teach courses giving effect to his broadened sphere of concerns. In 1936–7, probably inspired by the Social Security Act of 1935, he developed and taught a course entitled Economic Security, dealing with voluntary and legislated programs to protect individuals from economic and social risks. Two years later, he added a companion course, American Social Insurance. He continued to offer both courses until he went on leave in 1941.

ON LEAVE FROM STANFORD, AND RETIREMENT: 1941–62

While Canning's request for a leave from Stanford in 1941 may have been induced by a desire to partipate in shaping national agricultural policy, his request may have also been prompted by displeasure over the department's decision not to continue his principal accounting colleague and disciple, Edward G. Nelson.⁸³ As suggested above, the departmental support for Canning's accounting program was a mark of personal respect and evidently did not extend to the careers of his junior colleagues.

After mentioning Canning's leave of absence beginning in 1941 to devote full time as an economic adviser to the Secretary of Agriculture, the authors of the Memorial Resolution continued as follows:

Thus ended his career as professor of economics and began a new career as a full-time governmental expert. In 1942 he became economic assistant to the Administrator, Agricultural Marketing Administration (U.S. Department of Agriculture), and for the next three years he continued in Washington serving in various capacities with the Department of Agriculture. In 1945, at the close of the war he moved to Berlin to serve as deputy chief of the food and agriculture branch of the economic division of the U.S. Office of Military Government. His principal duties were to serve as the U.S. representative on the Quadripartite Council concerning problems of food and agriculture in the zones of occupation.

⁸³ Letter from Robert D. Calkins to the author, dated 4 October 1965. Calkins wrote that the department's action also led to Canning's resignation from the university five years later.

From 1941 to 1946, Canning was an associate of Stanford's Food Research Institute, his one link with affairs in Palo Alto.⁸⁴ The Memorial continues: 'In June 1946, at his own request, he retired to emeritus status at Stanford, but he continued in Germany until December 1948 [during the airlift], when poor health necessitated his resignation from his governmental post'.

Nelson recalls that Canning suffered from chest pains in 1947, but that he nonetheless stayed on in Berlin for another year. Upon Canning's return to the San Francisco Bay area, Nelson said that 'it was exceedingly difficult for him to find a role. He had had so much experience in so many different things in American domestic economic policy, both on a state and on a national level, and in the military government in Germany, that he couldn't really bring himself to go back to teaching accounting'.⁸⁵ Moreover, as a result of several attacks of angina pectoris, his doctor had told him to take it easy. He therefore entered retirement at the age of sixty-four.

With Canning's retirement, the economics department lost no time in announcing that 'Students will not be admitted to the major in economics-accountancy after August 31, 1947' (*Register for 1946-47*, p. 515), and all references to the Division of Accountancy were dropped from the *Announcement of Courses* after 1947-8. Thereafter, some half-dozen accounting courses were offered each year by junior faculty with temporary appointments.

From 1948 onward, Canning did no professional work for publication, and he deliberately kept out of circulation.⁸⁶ He and his wife lived in their newly built home in the foothills just off the Stanford campus, and they repaired frequently to his cabin at Fallen Leaf Lake in the Sierra. Canning was a vigorous gardener, and he enjoyed fishing trips in the high country as well as deep-sea fishing. He continued to read, and he is said to have written a number of papers that he sent to officials in government, leading to a correspondence over issues that interested him. He died after a long illness, following intestinal surgery, on 4 July 1962.

CONCLUSION

Canning's book, *The Economics of Accountancy* (1929b), for which he earned a PhD at the University of Chicago in mid-career, was a seminal work. In some respects, Canning was similar to Sweeney (see Clarke, 1976) and MacNeal (see Zeff, 1982), as they wrote treatises that were highly regarded by subsequent theorists, they contributed to the accounting literature only during comparatively brief

⁸⁴ Nelson has suggested that Canning may have had little desire to return to Stanford during the war. According to Nelson, Ray Lyman Wilbur, Stanford's chancellor, and the Stanford board of trustees (over whom former U.S. President and Stanford alumnus Herbert C. Hoover held considerable sway) 'were not quite sure what the role of the University should be during the war. But Canning was *sure*, and he wasn't much interested in returning to a university that couldn't make up its mind. So he continued to extend his leaves.' Interview with Edward G. Nelson, 8 June 1965.

⁸⁵ Interview with Edward G. Nelson, 8 June 1965.

⁸⁶ Letter from Joseph S. Davis to William R. Smith, dated 6 August 1971.

periods, and they were known personally to only a few accounting academics. But neither Sweeney nor MacNeal entered academe. Canning was an academic economist *cum* statistician who installed an ambitious five-year accounting curriculum in an economics department whose other members were sceptical of this intrusion but who nonetheless greatly respected him. In the 1930s, Canning published markedly less on accounting as his interests expanded beyond accounting and towards fiscal policy and the economics of unemployment and health insurance, social security and agricultural policy. During retirement, Canning published no further work.

This article is dedicated to the memory of Ray Chambers.

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APPENDIX

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Note: Canning edited the annual *Papers and Proceedings* of the Pacific Coast Economic Association from 1932 through 1935.