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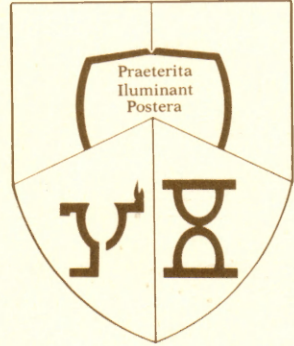
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Spring 1988
Volume 15, Number 1

Research on the Evolution of Accounting Thought and
Accounting Practice

The Accounting Historians Journal

Spring 1988

Volume 15, Number 1

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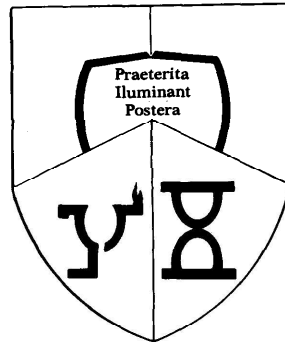
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Volume 15, Number 1

Spring 1988

CONTENTS

Legal Acceptance of Accounting Principles in Great Britain and the United States — Jean Margo Reid	1
The Nature and Function of Cost Keeping in a Late Nineteenth Century Small Business — Thomas Tyson ...	29
Trends in the Evolution of Scholarly Accounting Thought: A Quantitative Examination — Miklos Vasarhelyi, Da Hsein Bao and Joel Berk	45
The Evolution of the Unitary Tax Apportionment Method — Nancy Foran and Dahli Gray	65
The Rise of the Price of Wheat in the "Bakery in the Street of the Fishmarket" in the City of Lima: 1812-1821 — John T. S. Melzer	89

Features

A. A. Fitzgerald's "Accounting Principles — 1938" — with a Foreword by Louis Goldberg	119
---	-----

Reviews

Review Essay: Reflections on a Renaissance Scholar: Carl Devine's <i>Essays in Accounting Theory</i> , Volumes I-V — Edward Arrington	135
---	-----

Book Reviews:

Hall, <i>Accounting and Auditing: Thoughts on Forty Years in Practice and Education</i> — R. J. Kirsch	141
Johnson, <i>A New Approach to Management Accounting</i> — J. R. Razek	143
Shaplen, <i>Krueger: Genius and Swindler</i> — D. L. Flesher	145
Doctoral Research	147
Contents of Research Journals	151
Listing of Consulting Referees	Back Inside Cover

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3. When contemporary implications of the research are demonstrable or can be developed, as appropriate, the results of the research will be deemed as having added merit.

4. Manuscripts which involve general periods of time, such as a study over a decade or longer, should develop explanations which are sensitive to changes in technology, education, political, economic and similar environmental factors.

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7. Purely descriptive papers continue to be of importance but must be carefully and completely developed so that they are dealing with original materials as principal sources.

Jean Margo Reid
NEW YORK UNIVERSITY

LEGAL ACCEPTANCE OF ACCOUNTING PRINCIPLES IN GREAT BRITAIN AND THE UNITED STATES: SOME LESSONS FROM HISTORY

Abstract: This paper examines and contrasts nineteenth century case law in Great Britain and the United States in which courts had to decide whether to accept accounting concepts having to do with making provisions for depreciation, amortization and depletion. It should be emphasized that the courts were not arguing about accounting theory, *per se*; they were deciding particular disputes, which depended on the meaning in each case of profits. By 1889, when *Lee v. Neuchatel Asphalte Company* was decided, British courts had rejected accepted fixed asset accounting conventions in determining profits in tax, dividend, and other cases while United States courts accepted these conventions, except in the case of wasting asset companies. This historical contrast is of particular interest because a recent reversal of these countries legal stances has occurred through legislation. In the United States, the Revised Model Business Corporation Act and the legislatures of several states have now rejected accounting concepts of profit as the legal test for dividends and other shareholder distributions. The reasons for this rejection appear to be similar to those used by the British Court of Appeal nearly 100 years ago. In Great Britain, on the other hand, the 1980 Companies Act reverses much of the *Lee* case and places on accountants new responsibilities for determining whether company distributions to shareholders would violate the capital maintenance provisions of the act.

Almost 100 years ago, in 1889, the British Court of Appeal decided *Lee v. Neuchatel Asphalte Company*¹ and this case continues to be cited by accountants interested in the development of thought. The *Lee* decision is frequently interpreted to mean that companies are not required to make provisions for depreciation, but the debate over the meaning and significance of this case is not over [Morris, 1986].

Lee was the culmination of a series of nineteenth century legal cases in Britain where courts had to decide whether to

¹Case citations are contained in the Table of Cases in the References.

accept particular accounting techniques for fixed assets in the formulation of legal rules defining profits. At this same time, legal doctrines often taking a different view were developing in the United States. It should be emphasized that the courts were not arguing about abstract accounting theory in these cases. They were concerned with resolving disputes between particular parties and a variety of equitable considerations influenced their decisions. However, because the litigants' rights and obligations depended on the meaning of profits and income, the courts had to determine what principles of profit measurement should apply in the particular case.

The purpose of this paper is to compare these nineteenth century British and United States legal cases in which methods of accounting for fixed assets were first debated. The legal rules which emerged then endured for almost 100 years but are now the subject of renewed debate. In both Great Britain and the United States legislation was enacted in 1980 which reverses, in part, that country's century-old legal rules and adopts, in part, the other country's. A historical analysis should enlighten our understanding of these recent developments and the nature of the legal concern about certain accounting concepts. It also provides the opportunity to look at rule-making in accounting in a broad historical context.

The British cases concerning accounting for fixed assets will be discussed first, followed by American developments. Then a postscript describes and contrasts recent legislative developments in Great Britain and the United States.

THE BRITISH CASES

It is frequently stated that the 1889 case of *Lee v. Neuchatel Asphalte Company* broke with prior British law, in which the "capital maintenance doctrine" prevailed (see e.g. Robson [1927, p. 266]; Yamey [1941, p. 278]; and French [1977, p. 322]). A brief review of these early cases on capital maintenance is followed by a discussion of British tax cases which considered the deductibility of expense due to depreciation, amortization and depletion. These early cases set the stage for the *Lee* decision.

Pre-Lee British Legal Cases

The British legal cases decided before *Lee* are discussed in Reid [1987a, 1987b]. Although no consistent concept of profit or depreciation emerged, these cases tend to support the view that British courts prior to *Lee* required the adoption of accounting

methods which provided for capital maintenance. Early on, the courts held that dividends were payable out of profits, and could not be paid from capital [*MacDougall v. Jersey Imperial Hotel Co., Ltd.* (1864)]. In some cases, the balance sheet surplus test was said to be the appropriate concept for determining profits, see, e.g. *Binney v. Ince Hall Coal and Cannel Company* (1866) and *Helby's Case* (1866). Holdings and dicta stated that assets which had been stolen [*Henry v. The Great Northern Railway Company* (1857)], destroyed [*Stringer's Case* (1869)], or became irrecoverable [*Flitcroft's Case* (1882)], needed to be accounted for. Support also was given for making provision for the depreciation of fixed assets [*Rishton v. Grissell* (1868); *Mills v. Northern Railway of Buenos Ayres Company* (1870); *Lord Rokeby v. Elliot* (1878, 1880); *Davison v. Gillies* (1879); and *Kehoe v. The Waterford and Limerick Railway Company* (1888)]² and the amortization of leases [*Riston v. Grissell* (1868)]. However, not all decisions were in accord.³ Thus while the capital maintenance doctrine seemed fairly well established by these cases, it was not well-defined.

In this same period, other British courts considered the question of accounting for fixed assets in income tax cases. Here the courts largely rejected the application of accounting techniques which called for deductions for depreciation, depletion and amortization. These cases contrast with the pre-1889 decisions involving private parties, where different considerations appear to have prevailed.

*Rulings in Pre-Lee British Tax Cases*⁴

Generally, the British courts were zealous in protecting the Crown's revenue. In *Addie and Sons v. The Solicitor of Inland Revenue* (1875) a coal mining company claimed that it ought to be allowed a deduction for expenditures on pitsinking and for depreciation of machinery and plant. The court disallowed the deduction (p. 432) and said that expenditures on developing a

²But see *Dent v. The London Tramways Company* (1880), where a company was required to pay preferred stockholders dividends out of the current year's profits, after taking account of depreciation for the year, although in prior years insufficient depreciation reserves had been established and, therefore, capital was impaired.

³See, e.g. *Lambert v. Neuchatel Asphalte Company* (1882), which involved the same company as the later *Lee* case.

⁴British tax case citations were found in *Mew's Digest* [1884; 1898] under the heading "Revenue — Taxes and Duties."

mine are assets and "must be placed to capital account in any properly kept books."

Similarly, in *Forder v. Handyside and Co.* (1876) a deduction for depreciation of machinery was not permitted and the court said the depreciation was like an accrual for future repairs. The Income Tax Act did not permit deductions for repairs in excess of the average amount expended in the three previous years.⁵ The court noted that when the company subsequently made repairs "perfect justice would be done . . . and the deductions which the company now claim would in the long run, be allowed them" (p. 65). The court also refused with some "reluctance" to allow an insurance company to deduct estimated claims noting that they could be deducted when paid [*The Imperial Fire Insurance Company v. Wilson* (1876)]. The reason was that any estimate of risk would be speculative and could result in the company reporting no income (p. 273). This decision was in sharp contrast to the case law where directors were required to take account of pending risks in determining divisible profits.⁶

However, the *Knowles v. McAdam* (1877) decision permitted a company to deduct as an expense leasehold amortization. Here, a colliery company had claimed a deduction for depreciation, determined by a revaluation and allegedly caused by the year's coal depletion and lease expiration.⁷ While the court said that the deduction was misnamed "depreciation," it focused on the lease amortization and did not actually decide whether an owner of a mine, as opposed to a lessee, could deduct depreciation (p. 29):

Suppose a man pays 1000£ for a lease of the mine for one year only. At the end of the year he has got all the coal in the mine and sold it for 1200£, the expenses of labour and materials being 100£. Is his profit 1100£? It would be an abuse of language to say so. His profit is what remains in his pocket after deducting the expenses, namely 1000£ for the liberty to get the coal and 100£ for the cost of getting it.

The decision involved a number of issues. In particular, the tax act prohibited deductions on account of "diminution of

⁵Income Tax Act of 1842, 5 & 6 Vict. c. 35, Schedule D, sec. 100, Rule 3.

⁶See e.g. *Rance's Case* (1870)

⁷The amount claimed was less than provided by a straight-line amortization of the leasehold property, which cost 717,421 pounds and had an average of 32 years to run.

capital,"⁸ but the court decided that this provision did not apply. It relied on Lord Cairns' statement in *Gowan v. Christie* (1873)⁹ who seemed to view a mineral deposit as inventory: "What we call a mineral lease is really, when properly considered, a sale out and out of a portion of land."

In 1878, the British Income Tax Act was amended to permit deductions for depreciation due to wear and tear,¹⁰ further indicating acceptance of the accountant's concept of profit.

But, in *Coltress Iron Company v. Black* (1881) the House of Lords reversed this incipient trend.¹¹ Lord Blackburn called the *Knowles* decision, where the court treated 32-year leases like an inventory of coal "startling."

The effect of this would be that though the mines were worked so as to produce a large profit above the working expenses, yet if they were worked by a purchaser who had overestimated the value of the minerals, and paid such a price for them that he was a loser, no income tax was to be paid in respect of those mines. That is a result which never could have been intended by the Legislature, and . . . it seems to me a *reductio ad absurdum* . . ." (p. 338)

⁸Schedule D, Section 159 provided that " . . . it shall not be lawful to make any other deductions therefrom than such as are expressly enumerated in this Act; . . . nor to make any deduction from the profits or gains arising from any property herein described . . . on account of diminution of capital employed or of loss sustained in any trade . . ."

⁹This case considered whether a tenant had the right to abandon a lease because it was unprofitable. Lord Cairns said there was no way to determine whether it was a profitable lease: "[H]ow would it be possible at the end of the third or the fourth year of the lease, to speculate as to what the profit or loss would be if it were spread over the whole period of the lease. How can you at the end of the third or the fourth year of the lease tell what the price of labour may be in future years; or what machinery may be introduced in future, which may dispense to a certain extent with labour; or what the market value of minerals of the same kind will be at a future period, or what the effect upon the market value of those minerals may be of the discovery of other minerals of the same kind in the same neighbourhood. All those things are perfectly uncertain" (p. 284).

¹⁰Customs and Inland Revenue Act of 1878, 41 Vict. c. 15, sec. 12. Depletion and leasehold amortization were not separately mentioned.

¹¹In an 1880 case, *Watney and Co. v. Musgrave*, the court held that amortization of a pub lease was not an expense of a brewery, since buying up pub leases was not the business of a brewery. Although the judges admitted the similarity to advertising expense, in that this practice increased trade, they were not sure that advertising expense would be deductible either.

In *Coltness* expenditures on a mine were capitalized and then allocated to the cost of production. Earl Cairns (p. 324) and Lord Blackburn (p. 339) thought that this method allowed the "owner of a mine [to] . . . manipulate his accounts . . ." ¹² This concern about manipulation had also been expressed in other cases involving deductions for noncash expenses. ¹³

Equity among taxpayers also was considered. Both Lord Penzance and Lord Blackburn felt that the Income Tax Act, as it applied to mines, was a form of property tax. As in the case of other property subject to taxation on its value, its cost (and, by implication, accounting techniques to amortize that cost) was irrelevant. In effect, Blackburn commented that cost and accounting concepts of income often are disregarded in determining income taxes and the situation here is no different (p. 336):

It has also been sometimes argued that it is very unjust to tax at the same rate a terminable interest, such as that in a mine, which must at some time be worked out, and a fee simple interest, which will endure so long as this world continues in its present state There is much force in the argument on the other side, that if the interest is terminable, so is the tax [T]here can be no doubt that the same annual charge is imposed upon a terminable annuity and on one in perpetuity; and, what seems harder, that the same annual charge is imposed upon a professional income, earned by hard labour, often extending over many years before any return is got, and, when earned, precarious, as depending on the health of the earner. ¹⁴

¹²It is unclear from the facts given whether the company was guilty of manipulating its accounts to the detriment of the tax assessor. The company claimed a deduction for pitsinking of £9,927; the company's total expenditure on pits still in operation was £97,537. Its earliest working pit was opened in 1849. Over the 20 year period from 1858 to 1878, pitsinking expenditures amounted to £165,825 and pits were exhausted during the period on which £102,678 had been expended. For the six years from 1872 to 1878, costs were £71,965 and pits exhausted in these years had cost £44,013.

¹³Interestingly, Pixley [1881] was published the year *Coltness* was decided and he also viewed mines as relatively permanent property. Pixley thought that the purchase of a mine was similar to the purchase of a business; the good will or "purchase of business" asset would be good "So long as the Company is prosperous" (p. 146). Pixley did recommend that, instead of dividing all its profits, the company "raise" a sinking fund to write off this asset if its cost exceeded its realizable value (p. 147).

¹⁴This analogy involving the depreciation of human capital is occasionally alluded to in the literature. See e.g. May [1943, p. 27].

The final consideration in *Coltness* involved the need for certainty in collecting taxes. Deductions for noncash expenses introduced the possibility of tax avoidance. As Lord Blackburn pointed out the “object of the [framers of the Income Tax Act] is to grant a revenue at all events, even though a nearer approximation to equality may be sacrificed in order more easily and certainly to raise that revenue . . .” (p. 330).

Thus, concerns about taxpayer manipulation of noncash expenses, equity in the treatment of taxpayers, and a desire for certainty in revenue collections appeared to motivate these tax cases. However, before 1889 the tax cases were different than those where courts were called upon to determine income or profits for other purposes. Then, in 1889, the Court of Appeal decided *Lee v. Neuchatel Asphalte Company* and it shocked the accounting world.

Lee v. Neuchatel Asphalte Company (1889)

The Neuchatel Asphalte Company’s major asset was a terminable concession to work a mine. A shareholder claimed that dividends could not legally be paid until two conditions were met; first, the company must own net assets equal in value to the nominal (par) value of its outstanding shares; and second, “depreciation” of the concession had to be provided for.

The first condition is rarely mentioned in the literature. The complaining shareholder was arguing, in effect, that the stock was watered. In the Chancery Court, Judge Stirling concluded that the company need not accumulate assets equal in value to the stated capital before it paid dividends since “In my opinion, the capital of the company at the time of its formation really consisted of the aggregate of the assets taken over from the various selling companies . . .” and the plaintiff had not proved that *these* assets had depreciated in value (p. 9).

Of the three judges on the Court of Appeal, only Cotton commented on this aspect of the case. He noted that the share purchase contract had been duly registered and, on that basis, he also disagreed with the shareholder’s first claim. In Britain legislation required companies to register contracts to sell shares for property (instead of cash) with the Registrar of Joint Stock Companies.¹⁵ Before *Lee* the courts had refused to entertain complaints that the property was not worth the nominal value of the shares provided these registration requirements

¹⁵Companies Act, 1867, 30 & 31 Vict., c. 131, s. 25.

were met.¹⁶ As a result, nominal capital might bear no relation to the value of the company's assets, but it was believed that full disclosure would protect creditors and investors. As Sir George Jessel noted in *Anderson's Case* (1877), subsequent creditors "were told exactly what it [the property] was" (p. 102) which served as security for their advances. Then in *Lee* the court took the next step in refusing to require the company to make up the difference between nominal capital and asset value before paying dividends.

Since the intrinsic value of assets received in return for shares has no necessary relationship to nominal value, the accounting convention calling for a regular provision for depreciation is more difficult to justify. Therefore, it is not surprising that the Court of Appeal in *Lee v. Neuchatel Asphalte Company* also disagreed with the shareholder's second claim that a regular provision for depreciation was required.

Although the initial valuation of the company's property might have concerned accountants, it was the second issue that provoked the great debate among them [Brief, 1976], fueled by a number of the judges' comments, including Cotton's statement that "[t]here is no . . . necessity . . . to set apart every year a sum to answer the supposed annual diminution in the value of this property from lapse of time" (p. 18) unless required by contract. Like Stirling in the lower court, Cotton was persuaded by the fairness of the directors' determination that there were profits because additional advantageous terms had been obtained from the grantor and, therefore, the concession was worth more than when it was acquired. This suggests that in Cotton's view capital, meaning the value of the assets exchanged for shares, should be maintained in some fashion, although an honest valuation was all that was required.

But the other two judges on the Court of Appeal, Lord Justices Lindley and Lopes, rejected this notion of capital maintenance and its underlying balance sheet test of profitability. Moreover, although both comment on wasting asset companies, neither seems to rely on any attributes peculiar to capital in these companies. Thus, Lindley said (p. 20):

It is obvious with respect to such property, as with respect to various other properties of a like kind, mines and quarries and so on, every ton of stuff which you get out of that which you have bought

¹⁶See e.g. *Pell's Case* (1869); *Anderson's Case* (1877) and *In re Ambrose Lake Tin and Copper Mining Company* (1880).

with your capital may, from one point of view, be considered as embodying and containing a small portion of your capital, and that if you sell it and divide the proceeds you divide some portion of that which you have spent your capital in acquiring. It may be represented that that is a return of capital. All I can say is, if that is a return of capital it appears to me not to be such a return as is prohibited by law.

This type of comment in *Lee* has led many to believe that the court decided special rules applied to wasting asset companies. But this reading of the case is too narrow. For Lindley also said (p. 22):

[T]he Companies Acts do not require the capital to be made up if lost . . . [S]uppose a company is formed to start a daily newspaper; supposing it sinks £250,000 before the receipts from sales and advertisements equal the current expenses, and supposing it then goes on, is it to be said that the company . . . cannot divide profits until it has replaced its £250,000, which has been sunk in building up a property which if put up for sale would perhaps not yield £10,000? That is a business matter left to business men.

Although this statement broke from the traditional "capital maintenance" view found in earlier dividend cases, in that it would permit the payment of dividends when capital was impaired, the statement probably would not, in itself, have caused great concern among accountants.

But in *Lee* the company's articles of association specified that dividends were payable out of profits, and courts in many previous cases had held that dividends were payable out of profits whether or not such a private contract existed.¹⁷ Although Lindley recognized that "if you want to find out . . . whether you have lost your money or not, you must bring your capital into account somehow or other" (p. 23), he seems to be saying that dividends could be paid if cash receipts from operations exceed disbursements (p. 24) without providing for depreciation.

Lopes explicitly said this and defined the excess of receipts over disbursements as "current annual profits" (p. 26):

¹⁷The earliest case which claimed the payment of dividends presupposed profits was an 1849 House of Lords case, *Burnes v. Pennell*.

The capital and the revenue accounts appear to me to be distinct and separate accounts, and, for the purpose of determining profits, accretions to and diminutions of the capital are to be disregarded.

These statements embroiled accountants since the determination of "profits" was thought to be their special domain. Thus, Cooper [1894, p. 1039] said:

The question seems to have been really, Was there profit? The only way of ascertaining this is by an account . . . Then why should not Accountants have been called, to tell the Court how, in practice, accounts are prepared? An Accountant would have explained to the Court the impossibility of preparing a Balance Sheet to show profit without allowing for waste . . .

And although accountants had argued that certain types of "fluctuations" in the value of long-term assets should be ignored, they almost all believed that depreciation should enter into the calculation of profits.

The Court of Appeal's strained definition of capital and profits permitted the Neuchatel Asphalte Company, within the constraints of existing case law, to pay a dividend. The court justified its decision on two grounds. First, Lindley noted, in terms reminiscent of his earlier treatise [1881, p. 791], the disagreement regarding what were assets and what were expenses, and reiterated in *Lee* his opinion that "What is to be put into a capital account, what into a revenue account is left to men of business" (p. 21). Thus profits could not be defined and capital bore no necessary relationship to the value of a company's property. Second, capital and its maintenance were irrelevant to the company's ability to pay creditors. According to Lindley, "The capital may be lost and yet the company may be a very thriving concern . . . If they [business men] think their prospects of success are considerable, so long as they pay their creditors, there is no reason why they should not go on and divide profits . . ." (p. 22). The court thus applied a liquidity standard based on surplus cash receipts for dividends¹⁸ which protected creditors but did not "paralyze the trade of the country" (p. 19). This contrasted with prior law, where capital maintenance rules were considered a creditor protec-

¹⁸French [1977, p. 319ff] also suggests that the Court of Appeal in *Lee* was adopting a solvency test for dividends, which takes into account liquidity and outstanding debts.

tion. Lindley rejected this notion of capital, which he said was not mandated by Parliament, and he noted that the Companies Acts did not even require a company to be wound up if it lost its capital.

Further light is shed on the Court of Appeal's reasoning in subsequent cases in the "Lee series."¹⁹ In particular, the lack of relationship between capital as a residual equity claim and underlying asset values and the importance to creditors of solvency rather than capital are emphasized. For example, in *Verner v. The General and Commercial Investment Trust Ltd.* (1894), Lindley observed that there was no legal requirement that "the capital must . . . be represented by assets which, if sold, would produce it." Thus it is noted that capital was not equivalent to liquidation value of assets. It was in this case that the Court distinguished fixed and "circulating" capital²⁰ and held that losses of fixed capital (here a large decline in market value of securities) need not be made up before paying dividends. Although Lindley observed that "capital lost must not appear in the accounts as still existing intact; the accounts must show the truth, and not be misleading or fraudulent," he also observed that the Companies Act did not require that accounts be kept at all! Again the court emphasized the company was not insolvent (p. 463).

Thus, by 1889 the British courts rejected what were considered at the time, and are now considered to be, accepted fixed asset account conventions in determining income available for dividends and taxable income. However, Parliament overturned some of these court decisions by permitting a deduction for depreciation in determining taxable income. These British decisions contrast with developments in the United States at

¹⁹See e.g. *Verner v. The General and Commercial Investment Trust Ltd.* (1894); *Bolton v. Natal Land Co.* [1892]; *Bosanquet v. St. John D'El Rey Mining Co.* (1897); *In re National Bank of Wales* [1899], affirmed *sub. nom. Dovey v. Cory* [1901]; and *Ammonia Soda Co. v. Chamberlain* [1918].

²⁰Although *Lee* is frequently cited as the first case in which (counsel) distinguished fixed and circulating or floating capital (see, e.g. Palmer [1912, p. 884]), the term "floating capital" had been used in at least two prior House of Lords cases, both involving questions of apportionment of income between life tenants and remaindermen: *Irving v. Houston* (1803) and *Bouche v. Sproule* (1887). The term was also used in several prior dividend cases: *Stevens v. The South Devon Railway Company* (1851) (shareholder sues to have dividend enjoined while large "floating" unsecured debt is unpaid); *City of Glasgow Bank v. Mackinnon* (1882), and *In re Oxford Benefit Building and Investment Society* (1886).

this time, where, except for cases involving wasting assets, the court decisions were more consistent with accounting conventions.

THE UNITED STATES CASES

A number of legal cases arose in the United States in the nineteenth century in which courts were called upon to decide profits available for dividends, the amount due employees or other creditors under profit sharing arrangements, or taxable income.²¹ Of course, no single legal rule has ever existed in the United States. Each state legislature is free to enact its own laws and each state court can develop additional common law rules. New York enacted one of the earliest statutes governing dividends in 1825 and declared it unlawful for directors to pay dividends except from the "surplus profits arising from the business."²² According to Kehl [1941, p. 12], this statute, more than any other, influenced the development of dividend legislation in the United States. The Massachusetts statute of 1830 was also influential. It imposed personal liability on directors who declared dividends when the company was insolvent or would be rendered insolvent or bankrupt by virtue of the dividend.²³ Other states adopted rules against capital impairment.²⁴ Where such statutes existed, they did not define the content of the terms profit and capital and, therefore, courts were required to do so in concrete cases.

As in Britain before *Lee*, American court decisions in the nineteenth century supplemented this legislation and generally held that dividends could not be paid unless there were profits [Morawetz, 1882, p. 346; 1886, p. 410; Munson, 1891, p. 193; Cook, 1903, p. 1162; Kehl, 1941, p. 22, 23]. According to many authorities, the protection of creditors was a primary motivation for these rules [see. e.g. Kehl, 1941, p. 17] although dissenting shareholders also are occasionally mentioned as parties in need of protection [Morawetz, 1886, p. 411].

²¹American cases were located through a search of a number of treatises on corporation law, including Grant [1854], Potter [1881]; Morawetz [1882, 1886]; Taylor [1884], Boone [1887], Clark and Marshall [1902] and Cook [1903]. A number of articles and books about accounting and dividend law also were searched, including Reiter [1926], Annotation [1928]; Weiner [1929], Briggs [1934], Kehl [1939, 1941]; Berle and Fisher [1932], and Hills [1954a; 1954b].

²²New York Laws 1825, c. 325, sec. 2.

²³Mass. Laws, Jan. Sess., 1830, c. 53, sec. 9.

²⁴This statutory pattern is discussed in Reiter [1926, p. 103ff].

The determination of profits available for dividends or for other purposes required rules for valuing assets. Of particular interest are cases which raised issues of expense recognition due to depreciation and depletion. American case law on this topic was not uniform, but, by the late nineteenth century, legal acceptance of what today would be called the "going concern" convention was widespread, except in the case of wasting asset companies. The American cases on wasting asset companies will be discussed after those which established the general rules governing accounting for fixed assets.

Recognition of Depreciation

In several early American cases, courts stated that depreciation was not an expense. These included *Tutt v. Land* (Georgia, 1873), and two United States Supreme Court cases, *Eyster v. Centennial Board of Finance* (1876) and *United States v. Kansas Pacific Railway Company* (1878). The Supreme Court comment in *Eyster* was representative: "... according to the common understanding, [net receipts] ordinarily represent the profits of a business" (p. 503). In other cases courts disallowed depreciation for the purposes of determining dividends, apparently because the assets had been maintained through repairs, additions and improvements [*Park v. Grant Locomotive Works* (New Jersey, 1885) and *Mackintosh v. Flint & Pere Marquette Railroad Co.* (C.C. E.D. Mich., 1888)].

However, some courts decided deductions for depreciation, broadly defined, were proper. Thus in *Meserve v. Andrews* (Massachusetts, 1871) the court determined that loss caused by fire was deductible in determining profits under a lease. State savings bank legislation applicable in *In re Provident Institution for Savings* (New Jersey, 1878) required the bank to establish reserves to meet any contingency or loss "... from the depreciation of its securities or otherwise" (p. 6). And for tax purposes, the Supreme Court of the United States decided that depreciation in the value of investments in bonds and stock and in the value of track was deductible in *Little Miami & Columbus & Xenia Railroad Company v. United States* (1883). The court commented that "The law evidently contemplated an annual statement of accounts, and in this way an annual striking of balances between gains and losses" (p. 279).

In later cases depreciation tended to be equated with loss due to wear and tear, as in *Conville v. Shook* (New York, 1893), which involved determining compensation under an employee profit sharing plan. In *Whittaker v. Amwell National Bank* (New

Jersey, 1894) the court found that machinery and real estate should be valued at cost less depreciation for wear and tear, the appropriate charge to be determined through experience. However, the concept of depreciation also was associated with a valuation process and in *Hiscock v. Lacy* (New York, 1894) the court decided buildings and real estate should not be depreciated below their real value to deprive a minority shareholder of dividends.

Depreciation also was an issue in several cases which involved whether public utility rates were set so low as to involve an unconstitutional taking of property without just compensation. Although a California court, in *San Diego Water Company v. City of San Diego* (California, 1897), held that depreciation was not a deductible expense, later rate cases held otherwise. In a United States Supreme Court case, *San Diego Land and Town Company v. National City* (1899), it was held that "annual depreciation of the plant from natural causes resulting from its use" (p. 757) ought to be taken into account when rates were fixed. Other cases, e.g. *Milwaukee Electric Railway & Light Co. v. City of Milwaukee* (C.C. E.D. Wisc., 1898), were in accord.

Courts also permitted companies to make deductions for the amortization of franchises and other contracts in a rate case, *Milwaukee Electric Railway & Light Co. v. City of Milwaukee* (C.C. E.D. Wisc., 1898).

Thus by the late nineteenth century, some agreement appeared to be developing in both federal and state courts that depreciation was a deductible expense. However, the concept of depreciation was not uniform; some courts viewed depreciation as an allocation of costs and others saw it as a valuation procedure. This contrasted with the case law on depletion.

Depletion: The Wasting Asset Doctrine

United States legal doctrine concerning depletion appears to have originated in two early Pennsylvania tax cases, but these decisions were inconsistent with a Pennsylvania dividend decision, *Ford v. Locust Mountain Coal Co.* (1868). In *Ford* a lower court decided that a coal company could, and probably must, establish a sinking fund for depletion of coal deposits. Otherwise, the public would be deceived about the value of the stock and insiders, who understood that dividends were being paid out of capital, would be able to benefit by selling their shares to unknowledgeable investors.

But the Pennsylvania tax cases took another position. In *Commonwealth v. The Ocean Oil Company* (1868) an oil company claimed a deduction for oil depletion for income tax purposes. The trial court instructed the jury that such a deduction was permissible, provided the jury found the oil deposit was exhaustible: the “jury should act on *reasonable* probabilities, . . . taking into account the time that it will probably take to exhaust the capital . . .” (p. 62).

However, the Pennsylvania Supreme Court reversed this, noting that “the capital of oil companies is generally nominal” (p. 63). But the nominal value was neither the aggregate price paid for its shares nor the cost of its land and under these circumstances, no deduction for depletion was allowed.

Further clarification of this position was forthcoming in *Commonwealth v. The Penn Gas Coal Company* (Pennsylvania, 1869), where a coal company claimed a deduction for “waste of capital for coal taken out” (p. 241). The Pennsylvania Supreme Court explained that taxes would be wrongfully avoided if this deduction were allowed.

All capitals of mining companies, whether of coal, iron, copper, or tin, or silver or gold, and so of quarrying companies, whether of stone, marble or slate, are nominal, like those of petroleum companies, and fixed by their promoters at such large figures, that, by applying the principle contended for by the appellees, the whole annual income would have to be retained to supply the loss of capital, which would disappoint the stockholders of their dividends, and the state of her taxes (p. 242).

Other courts also pointed out that capital in mining companies was stated at a nominal value, and as the California court in *In re South Mountain Consolidated Mining Company, Bankrupt* (1881) concluded, “It neither bears nor is intended nor supposed by the public to bear the slightest relation to the real value of the property — a value nearly always conjectural, and very often imaginary” (p. 33). The appellate court agreed (1882) and held that purchasers of shares in mining companies did not expressly or impliedly agree to pay the nominal value of the shares in cash or property.²⁵ The court also commented

²⁵In other companies shareholders had to pay the nominal value of the shares in money or property whose value equaled the nominal value of the shares. The practical impact of the distinction between mining and other companies in cases where property (instead of cash) was exchanged for shares was reduced by the majority rule that good faith director valuations of

on the inherent problems of valuing mines: "Little is known of its real value. It may be worth nothing; it may be worth many millions" (p. 367).

These American cases, all of which preceded *Lee* (1889), appear to be the basis for the American legal rules on accounting for fixed assets of mines and valuation of property exchanged for shares of mines.

COMPARISON OF BRITISH AND UNITED STATES NINETEENTH CENTURY RULES

In his influential work on corporate law, Morawetz [1886]²⁶ summed up his view of American accounting rules for fixed assets in terms of two related principles which today would be called "going concern value." First, (Vol. I, p. 414),

The right of a corporation to declare dividends cannot be determined by reference to the market value of the company's shares, or the price for which the assets could be sold. . . .

[T]he property acquired for permanent use in carrying on business, may be valued at the price actually paid for it, although it could not be sold again except at a loss. And even although the business of the company should prove less profitable than was anticipated, and the value of the whole concern, and consequently of the shares representing it, should greatly depreciate in actual value, it would not be necessary to accumulate the profits until the depreciation had been made up, and the value of the shares again raised to par. All that is required is, that the whole capital originally contributed by the shareholders be put into the business and kept there

The second point concerns the distinction between external and internal depreciation:

property exchanged for shares were conclusive, although in a minority of states, where the "true value" rule was adopted, those valuations were subject to review. See, e.g. Reiter [1926, pp. 95ff].

²⁶According to Ames [1887] who reviewed this book in the first issue of the *Harvard Law Review*, it was generally conceded to be the best contemporary treatise on the subject of corporations. Morawetz published the first edition of this treatise in 1882, when he was 23 years old. He appeared to have embarked on this project because he was unsuccessful in finding employment upon his graduation from Harvard Law School. Bibliographical material about Morawetz can be found in Swaine [1946].

If the capital of a company . . . is invested in machinery, land, or fixtures used in carrying on its business, the machinery, land, or fixtures may be valued at their original cost, provided they be kept up in their original condition.

Any depreciation of the value of the company's property resulting from the uncertainty of the speculation in which the company has embarked, or from a failure to carry on business profitably by reason of the state of trade, or similar causes, may be disregarded; but any depreciation caused by design, accident or wear and tear in using the property, should be made up out of the earnings before any dividend is declared.

These views, while similar to those held by British accountants like Guthrie [1883] and by some British courts before *Lee*, are in sharp contrast to those in the *Lee* series of cases, which applied to mining *and* other companies and did not require provision for either internal or external depreciation.

Legal rules like those in *Lee* applied in the United States only to wasting asset companies. Morawetz's explanation of the special rules for mining companies often has been reflected in the literature:

The capital of a mining company is not designed to be used, like that of a banking or manufacturing company, in carrying on business permanently. The working of a mine necessarily causes it to become exhausted and to depreciate in value, and this depreciation cannot be repaired. There would be no object in accumulating the money obtained by the company through working the mine, so as to keep up the original amount of capital. It is implied from the character of the speculation of a mining company, that the income derived from working the mine shall be distributed among the shareholders as dividends, after deducting the expenses, and making reasonable provision for contingencies (p. 415).²⁷

²⁷Morawetz's reasoning in part echoes that of an early British case involving a mine, *Binney v. Ince Hall Coal and Cannel Company* (1866). There Vice Chancellor Kindersley, influenced by Adam Smith, determined that waste needed to be provided for in determining profits. However, he permitted this joint stock company to return capital to its members. The rationale was that "It would be extremely detrimental to the shareholders if they were compelled to keep up a larger capital than they wanted to work with, or than they could safely employ" (p. 367). This company did not enjoy limited liability and therefore the customary prohibition against the return of capital to shareholders did not apply.

The nineteenth century developments in Britain and the United States described here suggest that courts in these countries had very different ideas about the role of accounting in formulating legal rules on profits. The *Lee* cases were profoundly influenced by Lord Lindley, whose views can be traced to his 1860 treatise on the law of partnerships and companies. Lindley may have been influenced by economists, as Edwards [1939, p. 181] suggests, or by accountants themselves. As Gower [1954, p. 112] pointed out, "Accountants . . . had their own notions including the division of assets into fixed and circulating and the non-revaluation of the former."

Nevertheless, nineteenth and twentieth century accountants alike have condemned the *Lee* decision. Discussions contemporary to *Lee* in the British periodical *The Accountant* claimed the decision showed a "feeble grasp of the fundamental principles of accounting,"²⁸ and was "utterly at variance with the views of all practical accountants and prudent men of affairs" [Payne, 1892, p. 143]. That journal also denounced the judgment as "the most mischievous which has ever been given in relation to company matters" [Weekly Notes, 1889, p. 149]²⁹ Pixley [1906]³⁰ claimed that *Lee* set "a suicidal policy" regarding dividend payments, "contrary to the practice of soundly managed public companies." And Morris [1986, p. 72] quotes other critical 19th century British commentary.

Some British legal scholars who were contemporaries of Lindley also criticized this decision. Palmer [1898, p. 147], an important authority on British company law, lamented: "The extraordinary laxity in regard to the ascertainment of profits which these decisions countenance, and apparently legalise, goes far to render the salutary rule, that dividends must not be paid out of capital, illusory." However, not all British legal scholars of the time were so critical. In an 1889 "Note" in the *Law Quarterly Review* the idea was advanced that *Lee* had to do with the doctrine of *laissez-faire*, and that this case freed businessmen from unnecessary constraints.

Lawyers, even since the days of Lord Mansfield, have been too apt to apply a Procrustean formula to mercantile as well as political operations. Happily the good sense of modern judges has done much to remove the reproach. Business men may grumble at

²⁸Cited in Hatfield [1916, p. 205]

²⁹This remark is quoted in Yamey [1941, p. 279].

³⁰These remarks are quoted in Hatfield [1916, p. 214].

the law's delay, but they can no longer complain of its technicality or of being confined in the strait-waistcoat of a legal formula . . . [Lee] will meet with the approval of the commercial and legal world.

This idea has been picked up by subsequent United Kingdom economists and lawyers. For example, Yamey [1941, p. 278] stated that *Lee* resulted in "leaving accounting matters to businessmen." Johnston [1961, p. 545] agreed that this case had to do with "profits [being] a matter of internal management." And more recently French [1977, p. 322] also concluded that the judges in this case gave

full reign to the notion that . . . economic freedom shall prevail. In doing so they have largely disregarded the conventions of profit measurement used by accountants, but it would have been pointless for them to have broken the fetters of the capital maintenance doctrine only to have another set of arbitrary constraints imposed in their place. To their credit the judges have steadfastly refused to let this happen, helped no doubt by the unimpressive figure the accountant has cut in the dividend case.

In the United States, on the other hand, *Lee* was cited in a number of late nineteenth and early twentieth century American court cases as the "leading authority" for the wasting asset doctrine.³¹ These cases also cited Morawetz [1886]. However the earlier Pennsylvania tax cases were not cited there or in the extensive commentary on the wasting asset doctrine since this time.

Some of the American commentary on *Lee* also adopts the view that this case established the wasting asset doctrine in Anglo-American law. For example, Saliers [1916, p. 33], an early authority on depreciation, wrote that "corporations engaged in mining are exceptions to the rule that the investment must be kept from diminishing" and he cited *Lee* as authority. Morris [1986], p. 77] has more recently suggested that English lawyers and companies immediately after *Lee* also believed that this decision applied only to wasting assets companies and that this decision did not retard the adoption of depreciation accounting in general.

³¹*Excelsior Water and Mining Company v. Pierce* (1891); *People ex. rel. United Verde Copper Co. v. Roberts* (1898); *Boothe v. Summit Coal Min. Co.* (1909); *Mellon v. Mississippi Wire Glass Co.* (1910); *Van Vleet v. Evangeline Oil Co.* (1911); and *Stratton's Independence v. Howbert* (1912).

Nevertheless, although *Lee* was often cited as the source, the legal doctrines which became dominant in the United States were first developed by American courts and later explicated by Morawetz [1886]. Slowly the wasting asset exception was written into the corporation codes of a majority of the states after it appeared in the Uniform Business Corporation Act (1928),³² which in turn was apparently influenced by 1927 Delaware legislation.³³

Later American commentary recognizes that *Lee* and the subsequent Court of Appeal cases go further than was originally thought and suggest in general that depreciation need not be accounted for.³⁴ This later American discussion tended to be critical of the *Lee* decision. For example, Street [1930, p. 239] commented that Lord Lindley's argument that profits were the source of dividends although capital had been lost was "not free from sophistry." And Ballantine and Hills [1935, p. 253] said that "with all deference, the English courts seem hopelessly 'thing minded' in their ideas about capital." The American wasting asset doctrine was also considered questionable by many Americans [see, e.g. Ballantine, 1931, p. 465], but it was, in any event, an exception, not the general rule.

POSTSCRIPT

The fallout from the *Lee* case has now stopped in Britain where the 1980 Companies Act³⁵ overturned much of the 1889

³²Section 24(IV). Drafted by the National Conference of Commissioners on Uniform State Laws and approved by the American Bar Association at its 1928 meeting. By 1935, eight states permitted wasting asset companies to distribute net proceeds without allowance for depletion [Ballantine and Hills, 1935, p. 240, n. 82]. By 1946, 17 states had such provisions [Grimes, 1946, p. 206], by 1960, 30 states, the District of Columbia and Puerto Rico did [Model Business Corporation Act Annotated, 1960, p. 688], and by 1966 five additional states were added to the roster [Model Business Corporation Act Annotated, 1960, 1966 Pocket Parts, pp. 246ff].

³³Delaware General Corporation Law, Sec. 34, March 1927. This legislation, in turn, apparently was adopted to upset a Delaware court decision which rejected the wasting asset doctrine, *Wittenberg v. Federal Mining & Smelting Co.*, (1926).

³⁴See e.g. Annotation [1928, p. 42], where it is noted that the "wasting assets doctrine appears to be but one application" of the English rule dating from *Lee* that "capital assets which are impaired or lost need not be replaced in order to justify the payment of dividends out of the revenue account."

³⁵The provisions of the 1980 Act are now consolidated in the Companies Act, 1985.

decision. This legislation makes capital a cornerstone of investor and creditor protection. In particular, public limited companies are required to have a minimum capital of £50,000 [ss. 117, 118] and independent persons qualified for appointment as auditors [s. 108(1)] must make valuations of any property exchanged for shares [s. 103(1)(a)]. Moreover, capital cannot be eroded by distributions to shareholders. A dual profits/capital impairment test appears to govern the legality of such distributions. Distributions cannot be made except out of profits [s. 263(1)] which are defined as a company's accumulated, realized profits, less its accumulated, realized losses [s. 263(3)]. Thus, current profits cannot be distributed, as English law had held since *Lee*, without regard to accumulated past losses. In addition, public limited companies cannot make distributions if the result would be to reduce the value of the assets below that of the liabilities and capital [s. 264(1)]. The Act still does not require that depreciation be provided for, although it does provide that any reserves or provisions for depreciation are to be treated as realized losses [s. 264(2)].

Most significant is the fact that whether the profits/capital impairment tests have been met is to be determined with reference to relevant accounts [s. 270; 271] accompanied by an auditor's opinion [s. 271(3), (4)] in which the auditors are required to report whether the distribution would violate the Act. Thus the act relies on accounting and auditing to meet its objectives.

The British Companies Act of 1980 was adopted at least partially to implement directives of the European Economic Community and make minimum capital requirements uniform throughout the Community [Hare, 1980a, p. 503]. But the changes also are responsive to much of the accounting profession's criticism about the *Lee* cases since they were decided and are consistent with recommendations advocated by the Jenkins Committee on Company Law of 20 years earlier [Hare, 1980b, p. 586].

However, in the United States the rules adopted in *Lee v. Neuchatel Asphalte Company* have now begun to find favor among the organized legal profession and the legislatures of a number of states. The Model Business Corporation Act was amended in 1980 and the amendments abandon the traditional tests for dividends, based on earned surplus and prohibiting capital impairment, and retain a single test based on solvency.³⁶ Dividends are prohibited when a company is insolvent

³⁶1969 Model Business Corporation Act, sec. 45, amended by financial provisions, 34 Bus. Law. 1867 (1979), adopted, 35 Bus. Law. 1365 (1980).

by virtue of lack of liquidity, i.e. inability to pay debts as they come due [s. 6.40(c)] or insolvent in the bankruptcy sense that total liabilities (not including capital except where shares have preferential rights on liquidation) exceed total assets. These financial provisions were included in the Revised Model Business Corporation Act (RMBCA) of 1984³⁷ and have already been included in the corporation codes of at least eight states.³⁸ In two other states, Massachusetts and California,³⁹ an insolvency test was adopted preceding the 1980 amendments. Experience with the original Model Act suggests that these new financial provisions will eventually be adopted in many more states.

In contrast to the 1980 British amendments, directors, not independent auditors or appraisers, are to be the valuers of property exchanged for shares [RMBCA s. 6.21 (a)]. Moreover, the act specifically refuses to adopt generally accepted accounting principles, although these may be used if "reasonable in the circumstances" [RMBCA, s. 6.40(d)] to test the legality of distributions. Instead, the Revised Model Act would look to businessmen for judgments about the important issues of valuation and liquidity. This is exactly what many have said the *Lee* case did.

While the accounting profession appears to be regarded with a new esteem in Britain, the American drafters of the RMBCA do not rely on accounting conventions to determine important issues of valuation and creditor protection. The official comments to the RMBCA note that in practice the traditional dividend tests, based on profits and capital impairment, have not worked and that shareholders have been able to make whatever distributions they wanted (RMBCA, Official Text, p. 123). The official comments (pp. 125ff) lay the blame for that failure on accountants. Thus the controversy surrounding the periodic revisions of generally accepted accounting principles is noted, and it is concluded that director "reasonableness" establishes a better legal standard than accounting:

³⁷Adopted by the Committee on Corporate Laws of the Section of Corporation, Banking and Business Law of the American Bar Association.

³⁸Those states are Illinois [Ill. Rev. Stat. 1983, Ch. 32, Bus. Corp. Act, s. 9.05]; Indiana [Burns Ind. Statutes Annotated, Title 23, ss. 1-28-1 through 1-28-5]; Minnesota [West's Minn. Stat. Annotated, Vol. 20, s. 302A.551]; Montana [Montana Code Annotated, Vol. 35, ss. 35-1-711]; New Mexico [Michie's New Mexico Statutes Annotated, Chapter 53, ss. 53-11-44]; South Carolina [South Carolina Code, ss. 33-9-260]; Virginia [Michie's Virginia Code, ss 13.1-653]; and Washington [Washington Revised Code Annotated, ss. 23A.08.420].

³⁹West's Annotated California Corporation Code, ss. 500 - 503.

The widespread controversy concerning various accounting principles, and their continuous reevaluation, suggest that a statutory standard of reasonableness, rather than of generally accepted accounting principles, is appropriate

Section 6.40(d) specifically permits determinations to be made . . . on the basis of a fair valuation or other method that is reasonable in the circumstances. Thus the statute authorizes departures from historical cost accounting and sanctions the use of appraisal methods to determine the funds available for distributions.

With some irony, the official comments in connection with the RMBCA resound of the reasoning of Judge Lindley in the *Lee* case. Lindley also felt that capital impairment rules did not protect creditors because capital lacked defined meaning. He also believed liquidity, not capital impairment, was a better test of the validity of a dividend. Other judges were suspicious of basic conventions like matching of revenue with expenses, which they said could lead to the manipulation of accounts. More fundamentally, it was recognized that much of what influences market value is not reflected in the accounts.

Littleton [1933, p. 214] argued that the development of accounting conventions was spurred by the necessity of determining profits available for dividends and much has been written about these developments. Now, after 100 years of experience, the American Bar Association Committee on Corporate Laws and some state legislatures have apparently concluded that accounting conventions do not matter for this purpose. This attitude may reflect a struggle for political power between the legal and accounting professions. Or it may reflect more fundamental questions about the objectives of accounting from the perspective, at least, of one important set of users.

While it is beyond the scope of this paper, there appears to be a growing interest in the interaction of legislation and judicial decisions in the evolution of legal rules on accounting and further research which chronologically traces this evolution, beginning with the legislation cited in this paper and the cases in the Table, might shed further light on the process of rule-making in accounting. In the 100 years which have elapsed since the legal decisions discussed here, complex social and economic developments have undoubtedly affected the recent developments in the law of accounting. This paper is one element in that story. However, the question of why the accounting profession in Great Britain has been given greater

legal responsibilities while the opposite seems to be occurring in the United States remains an issue which should concern accountants and therefore merits further study.

REFERENCES

Table of Cases

- Addie and Sons v. The Solicitor of Inland Revenue*, Court of Sessions Cases, 4th Series, Vol. II, p. 431 (1875)
- In re Ambrose Lake Tin and Copper Mining Company*, L.R. 14 Ch. D. 390 (1880)
- Ammonia Soda Co. v. Chamberlain* [1918] 1 Ch. 266
- Anderson's Case*, L.R. 7 Ch. D. 75 (1877)
- Binney v. Ince Hall Coal and Cannel Company*, 35 L.J. Ch. 363 (1866)
- Bolton v. Natal Land Co.* [1892] 2 Ch. 124
- Boothe v. Summit Coal Min. Co.*, 55 Wash. 167 (1907)
- Bosanquet v. St. John D'El Rey Mining Co.*, 77 L.T. 206 (1897)
- Bouche v. Sproule*, L.R. 12 App. Cas. 385 (1887)
- Burnes v. Pennell*, 2 H.L. Cas. 497 (1849)
- City of Glasgow Bank v. Mackinnon*, 9 Court Session Cases, 4th Series, 535 (1882)
- Coltness Iron Company v. Black*, L.R. 6 App. Cas. 315 (1881); House of Lords, Scotland
- Commonwealth v. Central Transp. Co.*, 145 Pa. 89 (1891)
- Commonwealth v. The Ocean Oil Company*, 59 Pa. 61 (1868)
- Commonwealth v. Penn Gas Coal Company*, 62 Pa. 241 (1869)
- Conville v. Shook*, 24 N.Y. Supp. 547 (1893)
- Davison v. Gillies*, L.R. 16 Ch. D. 347n (1879)
- Dent v. The London Tramways Company (Limited)*, L.R. 16 Ch. D. 344 (1880)
- Excelsior Water and Mining Co. v. Pierce*, 90 Cal. 131 (1891)
- Eyster v. Centennial Board of Finance*, 94 U.S. 500 (1876)
- Flitcroft's Case*, L.R. 21 Ch. D. 519 (1882)
- Ford v. Locust Mountain Coal and Iron Company*, 25 Phil. Leg. Int. 268 (1868)
- Forder v. Handyside and Co.*, 35 L.T. 62 (1876)
- Gowan v. Christie*, L.R. 2 H.L. Sc. 273 (1873)
- Helby's Case*, L.R. 2 Eq. 167 (1866)
- Henry v. The Great Northern Railway Company*, 4 Kay & John 1 (1857), *aff'd* 1 De G. & J. 606
- Hiscock v. Lacy*, 9 Misc. (N.Y.) 578 (1894)
- Imperial Fire Insurance Company v. Wilson*, 35 L.T. 271 (1876)
- Irving v. Houston*, 4 Paton, Sc. App. 521 (1803)
- Kehoe v. The Waterford and Limerick Railway Company*, L.R. 21 Ir. Ch. D. 221 (1888)
- Knowles v. McAdam*, L.R. 3 Ex D. 23 (1877)
- Lambert v. The Neuchatel Asphalte Company (Limited)*, 51 L.J. (Ch.) 882 (1882)
- Lee v. Neuchatel Asphalte Company*, L.R. 41 Ch. D. 1 (1889)
- Little Miami & Columbus & Xenia Railroad Co. v. United States*, 108 U.S. 277 (1883)
- Lord Rokeby v. Elliot*, 41 L.T. 537 (1880), *varying* 38 L.T. 846 (1878)
- MacDougall v. Jersey Imperial Hotel Co., Limited*, 2 Hem. & M. 528 (1864)
- Mackintosh v. Flint & Pere Marquette Railroad Co.*, 34 Fed. 582 (C.C. E.D. Mich. 1888)

- Mellon v. Mississippi Wire Glass Co.*, 77 N.J. Eq. 498 (1910)
Meserve v. Andrews, 106 Mass. 419 (1871)
Mills v. Northern Railway of Buenos Ayres Company, L.R. 5 Ch. App. 621 (1870)
Milwaukee Electric Railway & Light Co. v. City of Milwaukee, 87 Fed. 577 (C.C. E.D. Wis. 1898)
In re National Bank of Wales [1899] 2 Ch. 629, affirmed *sub. nom. Dovey v. Cory* [1901] App. Cas. 477
In re Oxford Benefit Building and Investment Society, L.R. 35 Ch. D. 502 (1886)
Park v. Grant Locomotive Works, 40 N.J. Eq. 114 (1885), *aff'd* on opinion below, 45 N.J. Eq. 244 (1888)
Pell's Case, L.R. 5 Ch. App. 11 (1869)
People ex. rel. United Verde Copper Co. v. Roberts, 156 N.Y. 585 (1898)
In re Provident Institution for Savings, 30 N.J. Eq. 5 (1878)
Rance's Case, L.R. 6 Ch. App. 104 (1870)
Rishton v. Grissell, L.R. 5 Eq. 326 (1868)
San Diego Land and Town Company v. National City, 174 U.S. 739 (1899)
San Diego Water Company v. City of San Diego, 118 Cal. 556 (1897)
In re South Mountain Consolidated Mining Company, 7 Sawyers Reports (California) 30 (1881), *aff'd*, 8 Sawyers Reports 366 (1882)
Stevens v. The South Devon Railway Company, 9 Hare 313 (1851)
Stratton's Independence v. Howbert (D.C. Col.) 207 Fed. 419 (1912)
Stringer's Case, L.R. 4 Ch. App. 475 (1869)
Tutt v. Land, 50 Ga. 339 (1873)
United States v. Kansas Pacific Railway Company, 99 U.S. 455 (1878)
Van Vleet v. Evangeline Oil Co., 129 La. 406 (1911)
Verner v. The General and Commercial Investment Trust Ltd., 63 L.J. Ch. 456 (1894)
Watney and Co. v. Musgrave, 42 L.T. 690 (1880)
Whittaker v. Amwell National Bank, 52 N.J. Eq. 400 (1894)
Wittenberg v. Federal Mining & Smelting Co., 15 Del. Ch. 351 (1926)

REFERENCES

- Ames, J. B., Book Review, *Harvard Law Review* (April 15, 1887), pp. 109-110.
 Annotation, "Right or duty of corporation to pay dividends; and liability for wrongful payment," *American Law Reports Annotated* (1928), pp. 8-147.
 Ballantine, H. W., "Questions of Policy in Drafting a Modern Corporation Law," *California Law Review* (July, 1931), pp. 465-485.
 _____, and G. S. Hills, "Corporate Capital and Restrictions Upon Dividends Under Modern Corporation Laws," *California Law Review* (March, 1935), pp. 229-263.
 Berle, A. A. Jr. and F. S. Fisher, Jr., "Elements of the Law of Business Accounting," *Columbia Law Review* (April, 1932), pp. 573-622.
 Boone, C. T., *Manual of the Law Applicable to Corporations* (San Francisco: Bancroft-Whitney, 1887).
 Brief, R. P., *The Late Nineteenth Century Debate Over Depreciation, Capital, and Income* (Arno Press, 1976).
 Briggs, L. L., "Asset Valuation in Dividend Decisions," *The Accounting Review* (September, 1934), pp. 184-191.
 Clark, W. L. and W. L. Marshall, *Marshall on Private Corporations* (Saint Paul: Keefe-Davidson, 1902).
 Cook, W. W., *A Treatise on the Law of Corporations*, Fifth Edition, Vol. 2 (Chicago: Calaghan & Company, 1903).

- Cooper, E., "Chartered Accounts and the Profit Question," *The Accountant* (Nov. 24, 1894), pp. 1033-1043.
- Edwards, R. S., "A Note on the Law Relating to Company Dividends," *Economica* (May, 1939), pp. 170-190.
- French, E. A., "The Evolution of the Dividend Law of England," in W. T. Baxter and S. Davidson, eds., *Studies in Accounting* (The Institute of Chartered Accountants in England and Wales, 1977), pp. 306-331.
- Gower, L. C. B., *The Principles of Modern Company Law* (Stevens & Sons, 1954).
- Grant, J. *A Practical Treatise on the Law of Corporations* (Philadelphia: T. & J. W. Johnson, 1854).
- Grimes, M., "Corporations: Liquidating Dividends by Wasting Asset Corporations in California," *California Law Review* (March, 1946), pp. 204-212.
- Guthrie, E., "Depreciation and Sinking Funds," *The Accountant* (April 21, 1883), reprinted in R. P. Brief, ed., *The Late Nineteenth Century Debate Over Depreciation, Capital, and Income* (Arno Press, 1976).
- Hare, D. M., "Companies Act 1980 — I," *The Solicitors' Journal* (July 25, 1980a), pp. 503-505.
- _____, "Companies Act 1980 — VI," *The Solicitors' Journal* (August 29, 1980b), pp. 585-587.
- Hatfield, H. R., *Modern Accounting* (D. Appleton and Company, 1916).
- Hills, G. S., "The Law of Accounting: I," *Columbia Law Review* (January, 1954a), pp. 1-53.
- _____, "The Law of Accounting: II," *Columbia Law Review* (November, 1954b), pp. 1049-1106.
- Johnston, T. R., "The Determination of Divisible Profits," *Australian Accountant* (October, 1961), pp. 543-549.
- Kehl, D., "The Origin and Early Development of American Dividend Law," *Harvard Law Review* (November, 1939), pp. 36-67.
- _____, *Corporate Dividends* (1941), reprinted by Arno Press, New York, 1976.
- Lindley, N., *On the Law of Partnership, Including Its Application to Joint-Stock and Other Companies*, 2 Vols. (T. J. W. Johnson & Co., 1860).
- _____, *A Treatise on the Law of Partnership, Including its Application to Companies*, Fourth Ed., 2 Vols. (Calaghan & Co., 1881).
- Littleton, A. C., *Accounting Evolution to 1900* (1933), reprinted by the University of Alabama Press, 1981.
- May, G. O., *Financial Accounting, A Distillation of Experience* (1943), reprinted by Scholars Book Co., 1972.
- Mews, J., *A Digest of the Reported Decisions of the Courts of Common Law, Bankruptcy, Probate, Admiralty, and Divorce, Together With A Selection From Those of the Court of Chancery and Irish Courts, From 1756 to 1883 Inclusive*, Vol. VI (London: H. Sweet, 1884).
- _____, *The Digest of English Case Law*, Vol. 12 (London: Sweet and Maxwell, 1898).
- Model Business Corporation Act Annotated*, A Research Project of the American Bar Foundation, G. C. Seward, Chairman Special Committee, J. F. Spoerri, Project Director; Edited by the Committee on Corporate Laws, L. D. Adkins, Chairman, Section of Corporation, Banking, and Business Law of the American Bar Association (West Publishing Co., 1960), Vol. 1.
- _____, 1966 Pocket Parts, G. D. Gibson, Chairman, Special Committee, by J. F. Spoerri and H. G. Henn; Edited by the Committee on Corporate Laws, W. P. Scott, Chairman (West Publishing Company, 1966).
- Model Business Corporation Act Annotated With Official Comments and Repor-*

- ter's Annotations, Third Edition, adopted by Committee on Corporate Laws of the Section of Corporation, Banking & Business Law, American Bar Association (Law & Business), Prentice-Hall Information Services, 1986 Supplement), Vol. I.
- Morawetz, V., *A Treatise on the Law of Private Corporations*, First and Second Editions (Little, Brown and Company, 1882, 1886).
- Morris, R. D., "Lee v. Neuchatel Asphalte Company (1889) and Depreciation Accounting: Two Empirical Studies," *Accounting and Business Research* (Winter 1986), pp. 71-81.
- Munson, C. L., "Dividends," *Yale Law Journal* (1891-1892), pp. 193-206.
- Note, *Law Quarterly Review* (April, 1889), pp. 221-223.
- Palmer, F. B., *Company Law: A Practical Handbook for Lawyers and Business Men*, Second Ed. (Stevens and Sons, Limited, 1898).
- _____, *Company Precedents for Use in Relation to Companies Subject to the Companies (Consolidation) Act, 1908*, Eleventh Edition (Stevens and Sons, Limited, 1912).
- Payne, A. W., "The Principles upon Which the Assets of a Joint Stock Company Should be Valued for Balance Sheets," *The Accountant* (Feb. 13, 1892), pp. 141-146.
- Pixley, F. W., *Auditors: Their Duties and Responsibilities* (1881), reprinted by Arno Press, 1976.
- Potter, P., *Treatise on the Law of Corporations* (New York: Banks & Brothers, 1881).
- Reid, J. M., "Judicial Intervention in Accounting Behavior: A Reevaluation of the Nineteenth Century Experience," *Journal of Accounting and Public Policy* (Spring, 1987a), pp. 9-34.
- _____, "Judicial Views on Accounting in Britain Before 1889," *Accounting and Business Research* (Summer, 1987b), pp. 247-258.
- Reiter, P., *Profits, Dividends and the Law* (1926), reprinted by Arno Press, 1976.
- Revised Model Business Corporation Act, Official Text*, adopted by Committee on Corporate Laws of the Section of Corporation, Banking and Business Law of the American Bar Association (Law & Business, Inc./Harcourt Brace Jovanovich, 1984).
- Robson, W. A., "Legal Conceptions of Capital and Income," in T. E. Gregory and Dr. H. Dalton, eds., *London Essays in Economics* (George Routledge & Sons, Ltd., 1927), pp. 251-279.
- Saliers, E. A., *Principles of Depreciation* (The Ronald Press Company, 1916).
- Street, H. A., *A Treatise on the Doctrine of Ultra Vires* (Sweet and Maxwell, Limited, 1930).
- Swaine, R. T., *The Cravath Firm and Its Predecessors 1819-1947*, Vol. I (Ad Press Ltd., 1946).
- Taylor, H. O., *A Treatise on the Law of Private Corporations Having Capital Stock* (1884).
- Yamey, B. S., "Aspects of the Law Relating to Company Dividends," *Modern Law Review* (April, 1941), pp. 273-298.
- Weiner, J. L., "Theory of Anglo-American Dividend Law: American Statutes and Cases," *Columbia Law Review* (April, 1929), pp. 461-482.

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THE NATURE AND FUNCTION OF COST KEEPING IN A LATE NINETEENTH-CENTURY SMALL BUSINESS

Dedicated to the memory of Norman X. Dressel, a devoted accounting historian. I would also like to thank Robert Colson and an anonymous reviewer for their helpful comments and suggestions.

Abstract: J. Henry Rushton was the preeminent American builder of canoes and small pleasure boats in the late nineteenth-century. Beginning in the mid 1890s, Rushton personally maintained books of cost records and cost finding rules for his boat-building operations. In conjunction with the company's product catalogs and Rushton's personal letters, these books reveal the nature and function of cost keeping for this enterprise. They also suggest that pressures from increased competition and an economic depression may have stimulated Rushton to undertake detailed costing procedures.

J. Henry Rushton built canoes and other small pleasure boats in Canton, St. Lawrence County, New York between 1874 and 1906. Through a combination of high quality workmanship and aggressive catalog marketing, Rushton successfully expanded his business and attained international recognition. Rushton's detailed cost records and cost-finding rules reveal his concerns for the cost side of the enterprise.

This case study of the Rushton boat building business describes cost accounting practices of a late nineteenth century small business. As discussed by Chandler [1977] and Solomons [1968], costing methods such as used by Rushton were not standard management practice at the time. The archival records for the case study suggest business conditions that may have stimulated Rushton to undertake such formal costing procedures as a basis for rational managerial decision making. These conditions include increased competitive pressures, market development strategies, catalog and special order pricing decisions, and profitability concerns.

Rushton's cost accounting records were maintained in two volumes he kept himself, in a labor operations record book kept

by his foremen, William F. Kip, and in a "job book" (that has been lost). These records include cost-finding rules — specific instructions for identifying cost elements such as direct labor and direct materials (prime costs) with specific products as well as for assignment of specific cost transactions to these elements. In addition, the Rushton records specify rules for overhead allocations to units of product.

The paper is divided into two sections. The first part presents a chronological overview of Rushton's boat building business, revealing his business philosophy, cost consciousness, and the firm's environment. The second half of the paper describes various cost records that were maintained by Rushton in two bound record books labeled "Books of Knowledge". When considered carefully as primary source material, they provide information on the nature and function of cost keeping.

RUSHTON'S BOAT SHOP

In 1869, at age 26, J. Henry Rushton moved to Canton to work as a clerk in a boot and shoe store. Canton was, and remains, a small college town in northern New York state that borders the vacation sites along the St. Lawrence river and the wilderness areas of the Adirondack mountains. According to Rushton, a canoe which he built purely for his personal use in 1873 quickly turned into a small business serving vacationers and sportsmen of the local area [Rushton, 1893].

Rushton began his trade at a time of growing consumer demand for outdoor recreation. The Adirondack region, with its many lakes and rivers, and close proximity to major U.S. cities, conveniently satisfied this demand. Though only a one-man operation as late as 1878 [Manley, 1968, p. 47], Rushton continually sought to expand his business beyond the region. Beginning in 1876, he advertised in the nationally circulated sporting journal, *Forest and Stream*, and displayed two boats at the Philadelphia Centennial of that same year. In 1877, he distributed his first product catalog, a nine-page circular that described row boats, open canoes, and sailing canoes that could be purchased directly from the boat shop in Canton.

As canoeing grew in popularity, state and local clubs were formed to support the common interests of racers, builders, and other enthusiasts. In 1880, Rushton became a charter member of the overseeing organization, the American Canoe Association (ACA). He regularly attended annual ACA conventions and undoubtedly benefited from interactions with cus-



Photo courtesy of the St. Lawrence County Historical Association

tomers and other builders. His name and products were well known among club members, since his canoes were consistent prize winners at the yearly ACA races during the 1880s.

Rushton gained even greater recognition through his relationship with George Washington Sears, a renowned serial writer and outdoorsman. In 1880, Sears purchased the first of five small, and exceptionally light weight canoes from Rushton. Under the pen name of "Nessmuk", Sears wrote two very popular novels and over ninety articles for *Forest and Stream*, many of which described his adventures in the Adirondacks and extolled the virtues of guideless canoeing. In a letter to Sears regarding one of these canoes, Rushton revealed his business acumen:

... I will write of her to Forest and Stream. I must take this position ... You pay your money and take your choice. You prefer the smallest, lightest canoe possible. I build it for you and demonstrate to the world what can be done. You use it. You, by so doing

advertise me as a builder, and that is so much cash to me.¹

(emphasis in original)

Beginning in 1881, Rushton offered "Nessmuk Canoes" in his catalog and included Sears' personal endorsement among its many customer testimonials. Testimonials were a major element of Rushton's marketing strategy and served both to promote products and to alleviate customers' concerns regarding direct mail purchases, at the time a relatively new and risky undertaking.

In the early 1880s, the initial testimonial was signed by a Canton banker, lawyer, and judge, and specifically attested to Rushton's character and honor. In other letters, customers mentioned that they had received undamaged goods at far lower than expected freight charges. They extolled Rushton's high quality workmanship and described the varied pleasures that boating provided. In the 1887 catalog, 202 testimonials were included and occupied fully 24 of 80 pages. In that same catalog, Rushton [1887] indicated that he had received over 75,000 letters since starting the business.

During the early 1880s, Rushton significantly expanded his product line and enlarged his production facilities. In 1881, the 24-page catalog, in an edition of 10,000 copies, described nearly 250 pattern, size, and grade combinations of small craft. Early in that same year, he employed six workmen, but by July had increased the number to ten [Manley, 1968, p. 91]. In 1882 he completed construction of a three-story, 15,000 ft². factory that was furnished with water-powered equipment. In that year's catalog, Rushton [1882] described the new factory as "the largest establishment for the manufacture of small boats and canoes in the United States." The catalog also listed authorized sales agencies in New York, Boston, Chicago, Cincinnati, St. Paul, and New Orleans.

Yearly revisions of product catalogs and the regular use of journal advertisements reflected Rushton's continual effort to promote trade. This effort refutes Manley's [1958] later contention that Rushton's sole interest was in building better canoes. Catalogs, personal letters, and other primary source material indicate that Rushton consistently maintained a strong busi-

¹J. Henry Rushton to G. W. Sears, 8 November 1882, Atwood Manley Collection of J. Henry Rushton Materials, St. Lawrence County Historical Association. Canton, New York.

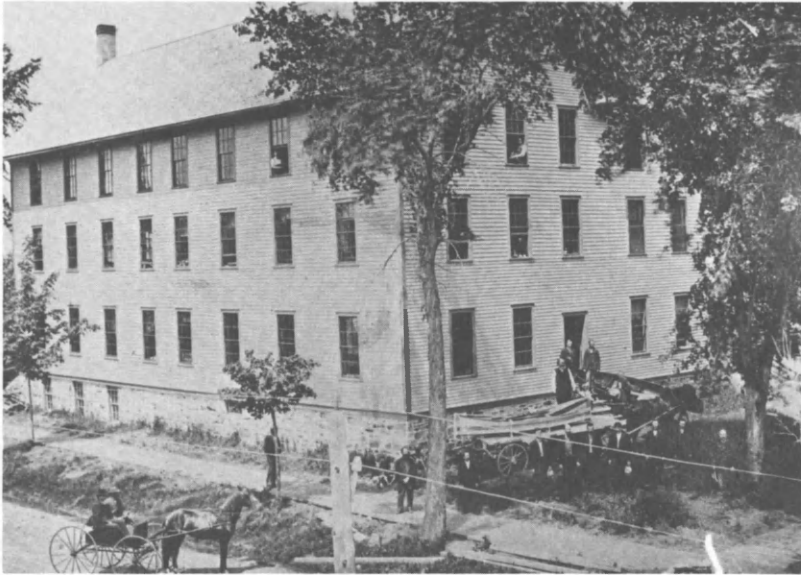


Photo courtesy of the St. Lawrence County Historical Association

ness orientation. In the 1833 catalog, for example, Rushton [1883, p. 32] presented sound business rationales for not using cheaper, heavier woods in boat construction:

We do not build, nor do we care to, coarse, heavy, low-priced boats. The proportion of freight charges to the value of the goods would be too great to have the result satisfactory to the purchaser, and the builder's reputation for *fine work* would, in many cases, suffer by it.

(emphasis in original)

In an 1884 letter to Sears, Rushton also displayed the ability to distinguish personal preferences from business opportunities:

You like the feather weight and the backwoods. So do I if I could leave my business for any time, but as a matter of business and to make the builder known abroad the decked sailing canoes are the ones I have to look after.²

²J. Henry Rushton to G. W. Sears, 14 September 1884, Atwood Manley Collection.

In the early and mid 1880s, it appears that Rushton could obtain profit margins ranging between 25 and 35 percent after subtracting prime costs and running expenses from list prices. In an 1881 letter to his friend, Lucien Wulsin, Rushton wrote that discounts to dealers could be no better than 20 percent, because "after paying all expenses there is *not* the margin on canoes that many suppose there is."³ (emphasis in original) On the inside cover of his 1885 catalog, Rushton [1885] addressed those who might ask for trade discounts by writing "to one and all: WE DO NOT CARE TO DO A RETAIL BUSINESS AT WHOLESALE PRICES."

Terms of sale were always net cash on delivery, with a 25 percent deposit required on all special orders. In 1882, a 5 percent discount was granted on orders over \$500. The discount threshold was increased to \$1,000 in 1885 and eliminated in 1886 except to stocking dealers. Comments from the 1886 catalog clearly reveal Rushton's awareness of costs:

. . . Take it for granted, that all men are alike in this respect; that they do *not* sell goods for less than what it cost to make them . . . Sit down and figure lumber, nails, screws, paint, oars, rowlocks, labor, shoproom waste of material in working, advertising and profit and see what you can buy for the money, then buy it if it suit you [Rushton, 1886, p.2].

(emphasis in original)

Throughout the 1880s, Rushton's business continued to expand. In an April 1886 letter to Sears, Rushton indicated that between 17 and 20 men had worked all winter.⁴ In the 1887 catalog, Rushton [1887, p. 2] reported the past season as his most successful ever. By 1888, he reported offering "a greater number and variety of boats than any other builder in the world" [Rushton, 1888, p. 2].

Sales made through his New York city agent, H. C. Squires, also increased significantly at that time. After 1886, Squires was the only agent listed in Rushton's catalogs. As mentioned, the 1887 catalog contained 202 customers testimonials; 51 of these had been written directly to Squires, however. The cost records also indicated that Squires negotiated deep discounts from published prices on several large orders in

³J. Henry Rushton to Lucien Wulsin, 21 March 1881, Atwood Manley Collection.

⁴J. Henry Rushton to G. W. Sears, 7 April 1886, Atwood Manley Collection.

the late 1880s. Increased competition from other area builders may have forced Rushton to accept lower prices. Manley [1968, p. 127] identified competing builders in a number of nearby northern New York towns. At least two of these competitors, Herbert Sprague of Parishville and the St. Lawrence River Skiff, Canoe and Stream Launch Company of Clayton also distributed product catalogs. Furthermore, Rushton was only one of nine builders to advertise in the May, 1887 issue of *The American Canoeist*.

Rushton apparently viewed the 1893 Columbian World's Exposition as a way of regaining lost trade and expanding into new markets. He borrowed heavily to finance and maintain a display of ten boats at the Chicago fair. He also distributed a special World's Columbian Exposition edition of his catalog; it introduced a new line of basswood boats that were listed at half the selling price of his regular cedar models. Unfortunately, the panic of 1893 and the ensuing economic depression affected nearly every sector of the economy [Steeple, 1961] and severely impaired Rushton's business. In a November, 1894 letter to one of his designers, Rushton wrote that "... times are awful. No trade at all."⁵ According to Manley [1968, p. 130], Rushton was reduced to "near-poverty" for the next five years.

Rushton's business changed character after the depression of the mid 1890s. Wholesale prices, which had fallen irregularly since 1870, fell another 13 percent between 1893 and 1897 [U.S. Bureau of the Census, 1975, p. 200]. Apparently, the reduced volume of trade and the continual pressure to discount forced Rushton to terminate the dealer arrangement he had with Squires. His 1895 catalog announced:

If you want a "Rushton" boat order it from Rushton. I would rather sell direct to the customer than through a second party . . . The only interest the middle man has in the transaction is the *scale* he gets out of it [Rushton, 1895, p. 2].

(emphasis in original)

By 1900, there were numerous economic developments that altered the demand/supply relationships for Rushton's high quality canoes and pleasure boats. According to Warrington [1977, p. 30], Rushton faced a market "reduced in the 1890s by recession and the new bicycle craze." The new fad of

⁵J. Henry Rushton to B. M. Kip, 11 November 1894, Atwood Manley Collection.

bicycling quickly surpassed boating in popularity, due in large part to a successful showing at the 1893 Chicago exposition and inclusion in the popular Sears catalog of that same year. Manley [1968] speculated that the passing of the romance of the western frontier contributed to the decline of wilderness canoeing. It has also been suggested that Rushton's business may have finally matured such that local and catalog customers had all the high-quality canoes and boats they wanted.⁶

Rushton responded to this changed market by introducing products that required less workmanship and used lower-grade materials. Rushton's catalogs still included many premier quality items, but by the late 1890s, the lower priced basswood boats and canvas covered canoes became the more popular models. Beginning in 1902, Rushton contracted with a Maine builder to produce canvas covered canoes in the Canton facility. By 1905, production occupied 32,000 square ft.², and by 1906, the year of Rushton's death, low-priced canvas canoes had become the shop's best selling item.

Rushton's son continued to direct the business but it now operated in mass-produced and mass-distributed product markets. The increasing scarcity of prime lumber, the introduction of aluminum canoes, and the growing popularity of automobile travel, all contributed to the shop's closing in 1916.

RUSHTON'S BOOKS OF KNOWLEDGE

Rushton kept cost information in two small volumes he labeled Books of Knowledge (hereafter "Books").⁷ According to Chandler [1977, p. 238], the majority of owner-entrepreneurs carried out management functions in a personal and intuitive manner, while Solomons [1968, p. 17] believed that the typical late nineteenth-century manufacturer computed product costs on a "rough and ready basis." Rushton, by contrast, kept quite detailed records and, like the management of Lyman Mills [Johnson, 1972], used cost data for decision-making and control purposes.

Rushton compiled these records between 1894 and 1903, although they contain cost memoranda from work performed as early as 1887. Volume 1 is by far the more comprehensive of

⁶I am indebted to Robert Colson for providing this insight.

⁷The original books are housed in the Adirondack Museum at Blue Mountain Lake, New York. Each is a ruled account book, has a marbled, cardboard cover, and is over 180 pages in length. Volume 1 is 8 1/2" high by 7" wide; volume 2 is 9 5/8" high by 7 5/8" wide and is leather bound.

the two books and contains cost-finding rules, detailed product costs for standard models, and directly traceable costs for several large special orders. Volume 2 was begun in 1899 and contains additional cost memoranda as well as end-of-year inventory summaries through October 1, 1903.

In addition to containing cost records and rules, these books include technical descriptions of boat construction and Rushton's personal observations about his managerial responsibilities. For example, the following statement refers to Rushton's cost figuring on an 1898 special order and reveals the level of his involvement in daily business activities:

... This is the *worst* nut I ever fell into ... I estimated 10 hours work and sold the thing for \$5.00. I have watched the work and still think it could be made in not over 15 hours if *properly got at*. I had no business to set *that* man on it knowing how he goes at *any* job. He worked hard enough, but oh dear, his *head* work on it would soon cause brain trouble.⁸

(emphasis in original)

Figure 1 is photographed directly from Volume 1 of the Books and contains costs that correlate with prices and grades shown in the 1893 catalog. Boat #105 was a 17 foot, four-to-five passenger row boat made of all wood construction. It was Rushton's most popular family boat and was continuously offered in the catalog from 1882 to 1893. Grades A through E were primarily distinguished by the quality of wood and fixtures used in construction. Grade A, for example, included perfect white cedar planking, ash gunwales, black-walnut seats, mahogany decks, spruce oars, nickel-plated brass rowlocks, and a three-coat finish of linseed oil, orange shellac, and varnish.

Costs shown in Figure 1 include combined labor and material components. For example, the \$8.73 planking cost on line 3 includes the cost of lumber as well as the labor costs of marking, sawing, smoothing, splicing, jointing, fitting, and nailing. The costs associated with these operations were specifically attached to model and grade, and were kept in a labor operations book by William F. Kip, Rushton's shop foreman

⁸J. Henry Rushton, "Books of Knowledge," 2 Vols. 1894-1903. J. Henry Rushton Collection, Adirondack Museum, Blue Mountain Lake, New York. vol. 1, p. 86.



FIGURE 1

Photo of material housed in the Adirondack Museum Library

between 1885 and 1895.⁹ It is unclear if the costs for component parts represent an average based on a sample of boats or are the result of an “engineering” analysis of one boat in each grade. In any case, product costs were computed on a systema-

⁹Though undated, Kip’s book associates labor costs with models that appear in Rushton’s 1893 catalog. This book is housed in the Atwood Manley Collection at the St. Lawrence County Historical Association in Canton, New York. It is a marble-covered ruled account book, approximately 8” high by 9 1/2” wide and over 100 pages in length.

tic rather than ad-hoc basis, as Rushton's comments regarding the cost of varnishing indicate:

This rule is made from very careful figuring on all the work done October 15, 1892 through October 15, 1893 on 202 boats of various models, and is safe to figure on for special jobs.¹⁰

In addition to the costs of material and labor, Figure 1 displays a provision for overhead, labeled "Share running Expense." Though Rushton never specifically identified the costs included in this category, Metcalf [1885, p. 166] used the term "running expenses" to represent the costs of buildings, power, machinery, lighting, warming, and superintendence. The provision for overhead as a percentage of total prime costs was listed by Battersby [1878] as one of the more common estimating methods in use at the time. As shown in Figure 1, Rushton's concept of prime costs included those material and labor cost elements that could be directly traced to discrete cost objectives.

After 1900, Alexander Hamilton Church wrote a series of articles that described more sophisticated allocation procedures that included a provision for fixed overhead costs.¹¹ It appears, however, that cost accounting practice of the late 1800s did not usually assign fixed costs to either products or periods [Kaplan, 1984, p. 393]. Rushton's inclusion of an overhead component may seem surprising for such a lightly mechanized industry. The size of the allocation, 33 percent of prime costs, may even indicate a provision for the fixed costs of plant and equipment in the pricing of standard catalog items.

No information has been located to suggest that Rushton collected detailed product cost data in the early years of his business. If detailed costs were first compiled in 1894, as these records indicate, then Garner's [1954, p. 346] argument that cost data took on far greater importance during a depression period of industrial activity, can be supported. This view is bolstered by pages 162-183 of volume 1 of the Books, which are entitled "Estimated Cost — Catalogue 1895". These pages contain a full set of revised cost figures for standard catalog models and correlate with 1895 prices, which are significantly reduced from their 1893 catalog listings.

The final line of the cost record in Figure 1 shows markup percentages ranging from 36.5 to 22.5 percent of the 1893

¹⁰J. Henry Rushton, "Books of Knowledge," Vol. 1, p. 104.

¹¹See Vangermeersch [1986] for a compendium of Church's articles.

prime costs and running expenses for grades A, B, C, D, and E, respectively. Other catalog models show even more divergence among markup percentages across grades. Given that prices for #105 boats had not changed between 1885 and 1893, these varying percentages may indicate that detailed product costs were computed to identify the level of price cutting that could be tolerated, as well as justify Rushton's consistent promotion

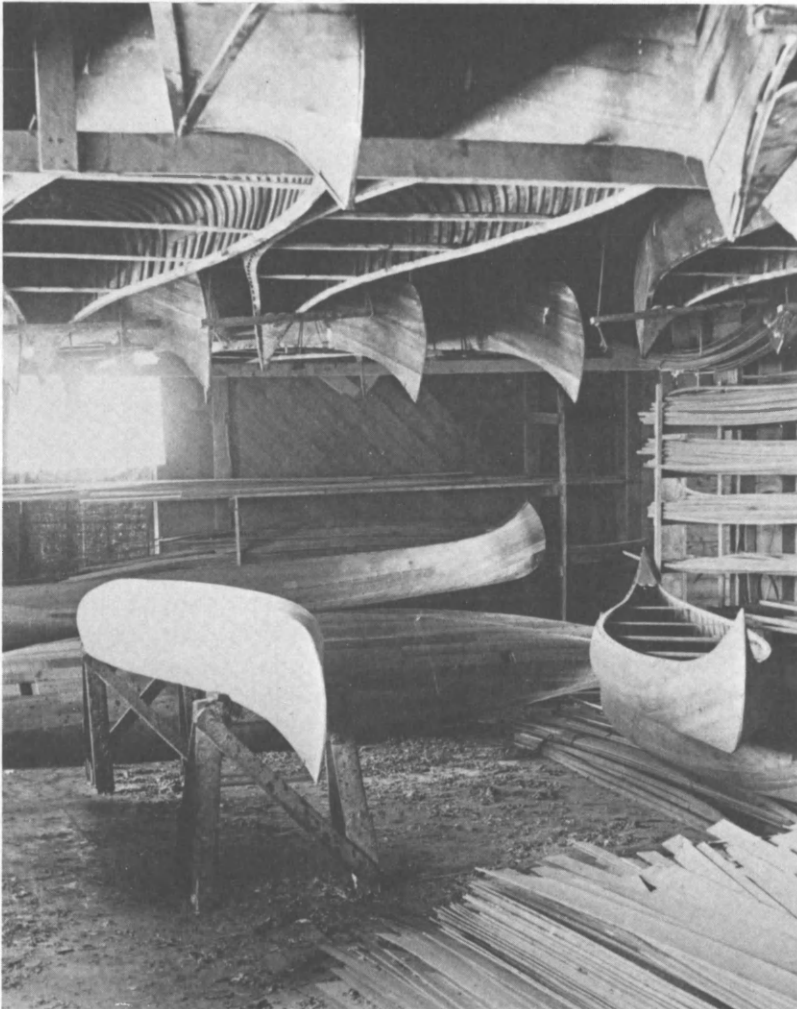


FIGURE 2

Photo of material housed in the Adirondack Museum Library

of the Grade A models rather than other grades.

Figure 2 displays the record for a special order of 30 boats built for H. C. Squires in 1889.¹² This record contains a number of interesting cost elements and illustrates the type of costs tracked by Rushton and assigned to special orders. Included in the cost record is a charge of \$7.50 representing Rushton's imputed labor for working three days on the order, and either imputed or out-of-pocket wages of \$9.40 for 47 hours of work performed by Rushton's half-brother, Judd W. Rushton. Labor of \$256.96 suggests that a back-up schedule was maintained to track labor cost by job. In fact, in another section of the Books, reference is made to a "job book" which apparently contained detailed labor costs for certain jobs.

The provision of \$9.71 to "Allow for Power & use Machinery" shows Rushton's awareness of the need for special orders to cover the costs of fixed overhead. Since this item appears as a "plug" figure, however, it appears that Rushton did not consistently assign fixed overhead costs to this class of orders.

This 1889 special order was apparently sold at a sizable discount from list price. Although #105 boats of basswood construction were not shown in the 1889 catalog, they did appear in the 1893 edition at a list price of \$30. Comparing this price to the \$18.20 shown in Figure 2 implies that Squires was granted a discount of nearly 40 percent. As a result of this large discount, the order contributed only \$9.71 to cover overhead after all traceable costs and Rushton's imputed labor cost were subtracted from the contract price. Rushton's comments at the bottom of Figure 2 that "These boats were put through to the best possible advantage in every way" may indicate that scheduling flexibility and capacity utilization made the order acceptable.

DISCUSSION AND CONCLUSION

What specifically motivated Rushton to compile detailed product cost data in the mid 1890s may never be known for certain, since no other cost or financial records from the Rushton Company have been located. This period was characterized by overproduction, falling prices, and shrinking margins [Wells, 1968], all of which led to the rise of mass distributions and producers [Chandler, 1968]. Rushton may have determined, in part through his detailed cost records, that he

¹²J. Henry Rushton, "Books of Knowledge," Vol. 1, p. 95.

could not sell high quality boats in sufficient volume at the then prevailing prices to remain economically viable. Consequently, he had to provide a less costly line of boats that would trade on the Rushton name and reputation to a clientele who could not afford to pay high prices. In light of these factors, Battersby's [1878, p. 33] comments seem particularly appropriate for the Rushton Company:

. . . Under *ordinary* circumstances it is of importance to know the prime cost of work, and particularly so in cases of keen competition, when manufacturers would content themselves with less than full profit, provided they could rely upon the correctness of the prime cost.

(emphasis in original)

If an 1894 Rushton catalog had been published and could be located, it might clearly show that cost data accumulated between 1892 and 1893 were reflected in revised selling prices. A discount sheet dated March 1, 1895 does indicate a 20 percent discount was offered from 1893 catalog prices on most models. This sheet may have been published prior to the 1895 catalog and probably reflected the revised cost figures mentioned earlier.

A number of writers have tied the development of cost accounting in the late nineteenth century to the rise of mass distributors and to the downward pressures on selling prices. For example, Littleton [1966, p. 321] and Solomons [1968, p. 18] have argued that the increasing difficulty of small producers to set and maintain prices was a key stimulating factor. Nelson [1975, p. 50] and Chatfield [1974, p. 101] have similarly written that cost accounting served as a device for ensuring the adequacy of selling price as competition increased. Beginning in the mid to late 1890s, mass distributors like Sears & Roebuck and Montgomery Ward raised the level of competition by delivering their canoes at far lower prices than Rushton charged. Rushton may have begun to keep detailed cost records in order to determine if he could make a profit at the mass distributor's price. These records could have been a first step in a systematic effort to reduce costs given that the level of competition had shifted from quality to price. In light of these arguments, Rushton's inclusion of a sizable overhead provision in the costing of standard models, as shown in Figure 1, makes the following statement by Wells [1978, p. 70] especially cogent:

... The solutions to the twin problems of deciding what price to charge (or accept) and reviewing their production processes to try to improve their efficiency appeared to be assisted by costing methods. For both, it was assumed without question that overhead costs had to be allocated to products.

Battersby [1878] and Garcke and Fells [1887], directed their discussions about cost accounting to engineers and managers in large, multi-departmental, industrial firms. In reference to this environment, Johnson [1981] has argued that cost systems were needed to provide greater administrative control and coordination, as well as to account for the large costs of heavy machinery.

For owner-managers of small industrial enterprises, such as J. Henry Rushton, a different set of factors may have compelled the development of detailed cost records. Throughout the growth years of his business, Rushton adopted an aggressive approach to catalog marketing and promotion in order to continually expand trade. During that time, Rushton competed primarily on quality and appeared able to maintain full list prices, as the comments in a number of catalogs have indicated. As the business matured, and the economy worsened, Rushton faced competition from mass producers in the areas of price and service rather than just quality. In this new environment, cost information was needed to determine if a profit could be made at the mass distributor's lower price. As he had done in the past, Rushton responded appropriately by developing and maintaining detailed cost records.

REFERENCES

- Battersby, Thomas. *The Perfect Double Entry Bookkeeper*. Manchester, England: John Heywood, 1878.
- Blue Mountain Lake, New York. Adirondack Museum, J. Henry Rushton Collection.
- Canton, New York. St. Lawrence County Historical Association, Atwood Manley Collection of J. Henry Rushton.
- Chandler, Alfred D. Jr., "The Coming of Big Business." *The Changing Economic Order: Readings in American Business and Economic History*. Alfred D. Chandler, Jr., Stuart Bruchey, and Louis Galambos editors. New York: Harcourt, Brace & World, 1968, pp. 268-270.
- _____. *The Visible Hand*. Cambridge, MA: Harvard University Press, 1977.
- Chatfield, Michael. *A History of Accounting Thought*. Hinsdale, IL: Dryden Press, 1974.
- Garcke, Emile and Fells, J. M. *Factory Accounts, Their Principles and Practice*. London: Crosby, Lockwood and Son, 1887.

- Garner, S. Paul. *Evolution of Cost Accounting to 1925*. University, AL: University of Alabama Press, 1954.
- Johnson, H. Thomas. "Early Cost Accounting for Internal Management Control: Lyman Mills in the 1850's," *Business History Review*, Vol. 46, No. 4 (Winter 1972), pp. 466-474.
- _____. "Toward a New Understanding of Nineteenth-Century Cost Accounting." *The Accounting Review*. Vol. 56, No. 3 (July 1981), pp. 510-518.
- Kaplan, Robert S. "The Evolution of Management Accounting." *The Accounting Review*. Vol 59, No. 3 (July 1984), pp. 390-418.
- Littleton, A. C. *Accounting Evolution to 1900*. New York: Russell & Russell, 1966. (1st published 1933).
- Manley, Atwood. "J. Henry Rushton — Famous Boat Builder." *The Quarterly* (April 1958) pp. 1-7.
- _____. *Rushton and His Times in American Canoeing*. Syracuse: Syracuse University Press, 1968.
- Metcalf, Henry. *The Cost of Manufacturers*. New York: John Wiley, 1885.
- Nelson, Daniel. *Managers and Workers*. Madison, WI: The University of Wisconsin Press, 1975.
- Rushton, J. Henry. *Rushton's Portable Sporting Boats, Canoes, and Barnegat Sneak Boats. For Hunting, Fishing, Trapping, Pleasure Rowing and Sailing*. 1882.
- _____. *Rushton's Portable Sporting Boats, Canoes, and Barnegat Sneak Boats, For Hunting, Fishing, Trapping, Pleasure Rowing and Sailing*. 1883.
- _____. *Rushton's Portable Sporting Boats, Sailing, Canoes and Barnegat Sneak Boats. For Hunting, Fishing, Trapping, Pleasure Rowing and Sailing*. 1885.
- _____. *Rushton's Portable Sporting Boats, Sailing, Canoes and Barnegat Sneak Boats. For Hunting, Fishing, Trapping, Pleasure Rowing and Sailing*. 1886.
- _____. *Rushton's Portable Sporting Boats, Sailing, Canoes and Barnegat Sneak Boats. And Steam Launches For Hunting, Fishing, Trapping, Pleasure Rowing and Sailing*. 1887.
- _____. *Rushton's Portable Sporting Boats, and Sailing Canoes For Hunting, Fishing, Trapping, Pleasure Rowing and Sailing*. 1888.
- _____. *Catalogue, Canoes, Pleasure and Hunting Boats World's Columbian Exposition Edition*. 1893.
- _____. *Illustrated Catalogue, Pleasure Boats and Canoes*. 1895.
- Solomons, David, "The Historical Development of Costing." *Studies in Cost Analysis*. David Solomons ed. Homewood, IL: Irwin, 1968, pp. 3-49.
- Steeple, Douglas W. *Five Troubled Years: A History of the Depression of 1893-1897*. Ann Arbor: University Microfilms, 1961.
- U.S. Bureau of the Census. *Historical Statistics of the United States, Colonial Times to 1970*. Bicentennial Edition. Washington, D.C., 1975.
- Vangermeersch, Richard, ed. *The Contributions of Alexander Hamilton Church to Accounting and Management*. Accounting Thought and Practice Through the Years series. New York and London: Garland Publishing, Inc., 1986.
- Warrinton, Tom, "Rushton: Forty Years of Craftmanship." *Canoe*. (October, 1977) pp. 27-30.
- Wells, David Ames. "The American Industrial Revolution." (1889) *The Transformation of American Society, 1870-1890*. John Garraty ed., Columbia, SC: University of South Carolina Press, 1968, pp. 55-64.
- Wells, M. C. *Accounting for Common Costs*. Urbana, IL: Center for International Education and Research in Accounting. 1978.

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TRENDS IN THE EVOLUTION OF SCHOLARLY ACCOUNTING THOUGHT: A QUANTITATIVE EXAMINATION

The authors are grateful for the assistance of Georgiana Hsu of Columbia University. The comments and suggestions of Professors L. Brown, R. Colson, J. Gardner, N. Preis, G. Previts, and D. Yang, Messrs. W. J. Shugard and H. S. Tsao of the AT&T Bell Laboratories as well as two anonymous referees are greatly appreciated.

Abstract: Contemporary Accounting Research (CAR) has expanded substantially in scope over the past two decades. This paper provides an overview of these trends using both quantitative techniques from statistics and exploratory data analysis (EDA). Articles in CAR are classified into taxonomies and the literature tracked over 22 years.

Analysis focuses on four taxonomies: foundation discipline, school of thought, research method and mode of reasoning. The paper first examines journals vis-a-vis article publication frequency and dominant taxonomies. Secondly, three assertions concerning the relative posture of the Journal of Accounting Research and the literature are examined. Next the context of the literature is examined through major taxonomies and a crosstabulation of research method vs school of thought. The last part of the analysis focuses on trends within the taxonomies in the 1963-1984 period.

1. INTRODUCTION

The past two decades have witnessed a rigorous process of paradigm development, interdisciplinary "borrowing", hypothesis testing, and theory refinement in the literature of accounting. Both the volume and breath of this research have created difficulties in understanding its current trends, applying its results, and generating a coherent set of accounting theories that are grounded in its history.

Notwithstanding this difficulty, numerous surveys have provided extensive classification and evaluation of this body of research. However, the focus of these surveys has been typically on an accounting area (e.g., auditing, budgeting) or a school of thought (e.g., human information processing, agency

theory). Little effort has been made to examine a larger subset of the literature or to evaluate its results in the light of the entire literature.

1.1 Research Issue

The major goal of this paper is to systematically examine the historical evolution of certain key characteristics of recently published accounting articles. Such examination facilitates a better understanding of the nature, scope and trends of modern accounting research. Specific attention is given to the nature of scholarly journals, the content of journal articles, and certain trends of the literature (within specific taxons).

1.2 Method

A common set of multiple taxonomies identifies the important characteristics of 2136 published articles included in the multiple taxonomy databank (MTDB). The large sample allows for the generalizability of our findings to the scholarly accounting literature as a whole. In addition, Exploratory Data Analysis (EDA) [Tukey, 1977] techniques in conjunction with traditional confirmatory statistics and graphics [Chambers et al., 1983; Becker and Chambers, 1984] provide specific insights into the development of the literature.

2. PREVIOUS CLASSIFICATION AND EVALUATION EFFORTS

Most previous accounting research surveys focused on an accounting area, a school of thought, or a research methodology. Different taxonomies were developed by each author(s) to facilitate their evaluation. Budgeting and auditing are two accounting areas that have received classification and evaluation attention. Ijiri, Kinard, and Putney [1968] surveyed the budgeting literature, classifying articles along two taxonomies: areas of application and techniques. Felix & Kinney [1982] surveyed the audit literature focusing their review on the opinion formulation process.

Schools of thought that have been classified and evaluated include behavioral accounting research, human information processing research, and security price research. Hofstede [1975, 1976] examined behavioral accounting research and classified articles along two taxonomies: accounting versus nonaccounting, and research versus practice. Gonedes and Dopuch [1974] focused on security price research and classified

the articles in terms of research methodology. Ashton [1982] and Libby and Lewis [1977, 1982] reviewed the human information processing literature, dividing the field into a set of paradigms and examining the literature by evaluating articles according to their membership in these paradigms

Research methodologies have been also surveyed. Ball [1971] and Hakansson [1973] surveyed empirical research. Ball [1971] attempted to develop a comprehensive index of accounting topics very similar to the index of an accounting textbook. Hakansson [1973] surveyed empirical research along general accounting issues. In addition, the 1982 supplement of the JAR examined the state of the art of current research methodologies.

Surveys from other points-of-view can also be found in the literature. Several articles in the *The Accounting Historians Journal* have examined the historical evolution of specific accounting topics.¹ The *Journal of Accounting Literature* is dedicated to the survey of accounting research studies. Articles published in the JAR are typically oriented towards the evolution of the literature in a field of endeavor within the accounting literature.²

Two recent studies [Brown & Gardner; 1985, 1985a] adopted a different approach. They examined the impact of articles and journals as well as the research contributions of faculty and doctoral programs through citation analysis.

Dyckman & Zeff [DZ] [1984], adopted yet another approach. They focused on a comparison between the Journal of Accounting Research and the broader accounting literature. Their classification scheme is displayed in Table 1.

¹For example Rayburn [1986] examined the authoritative literature on Interperiod Tax Allocation.

²For example Baiman [1982] examined agency research in managerial accounting, Kelly [1983] focused on positive theory research and Waller & Jiambalvo [1983] scrutinized normative models in the HIP literature.

TABLE 1. Dyckman & Zeff's Taxonomy

1. Recent Interdisciplinary Borrowing
 - Nonmath
 - Math.
2. Mathematical Modeling (other than the above)
3. Conceptual Development
4. Empirical
5. Normative Policy Prescription
6. History
7. Education
8. Other

The objective of the DZ article was to "gauge the contribution of Journal of Accounting Research during its first 20 years, 1963-1982." (p. 225). It examined the research environment prior to the JAR, the position of JAR in its first decade and various measures of its impact (through circulation, ratings, citations, award winning articles, citations in FASB Discussion Memorandums, and university interest). Among their findings were conclusions that:

- "...JAR and its Supplements have hastened the integration into the accounting literature of ideas and methods from other disciplines,"
- "JAR . . . has played a premier role in establishing a tradition of empirical research in accounting. . ."
- "...there is a virtual disappearance of historical research from JAR."

Overall, the accounting literature provided extensive taxonomization efforts within particular research areas but little efforts in generalizing results to the entire accounting research domain. This study is intended to fill the void. Furthermore, this study adds to the literature by attempting to provide quantitative analysis and results that can be replicated in the evaluation of issues that often are only analyzed in qualitative terms.

3. THE SAMPLE

The sample consists of the main articles³ published in the

³In addition to main articles, a few selected Accounting Review notes and Capsules from the Journal of Accounting Research were included in the sample. This subsample inclusion criterion was primarily judgmental.

1963-1984⁴ period, in six⁵ refereed accounting journals. It includes 2,136 articles (as described later in Table 1). The methodology of taxonomization adopted in the MTDB is discussed in Vasarhelyi, Bao & Berk [1985] and Brown and Vasarhelyi [1985]. A brief discussion of the categories used in the MTDB follows.

4. TAXONOMIES

The taxonomies of the MTDB were developed to describe three research dimensions (paradigms, research tools, and date reference set) of each article. *Paradigms* are the basic building blocks of any science [Kuhn, 1962] and are examined through two taxonomies: foundation discipline and school of thought. The *research tools* dimension (used to develop or test the paradigm) is examined along two taxonomies: research method and mode of reasoning. The *data or reference set* dimension (used in working with the paradigm) has three taxonomies: accounting area, treatment, and information. Each taxonomy consists of several taxons. Appendix A lists all the research dimensions, taxonomies, and taxons. This paper, however, focuses only on the paradigms and research tool dimensions of research. The analyses based on the data or reference set dimension are too lengthy to fit into this study.

The advantage of having a perfect set of taxonomies [Johnson, 1972], in an information theoretic sense, is its succinctness of description. Unfortunately, a perfect set of taxonomies implies orthogonality among the taxonomies, mutual exclusiveness among these taxons, comprehensive coverage by the classes, and perfect information content (adequate description) by the set of classifications. These features are not easily achievable. For example, Table 6 examines research method versus school of thought using a chi-square technique and shows these taxonomies as not independent. Taxonomies and taxons, therefore, are operationally defined but classifications are judgmental in nature.

⁴1963 is the year of establishment of Journal of Accounting Research.

⁵The Accounting Review (TAR), Journal of Accounting Research (JAR), Accounting, Organizations and Society (AOS), Journal of Accounting, Auditing and Finance (JAA), Journal of Accounting and Economics (JAE), and Auditing: A Journal of Theory and Practice (AUD).

5. ANALYSIS

The ensuing analysis will first concentrate on journals (and subsequently the above mentioned three DZ findings), then on the content of the literature, and finally on the trends within the database.

5.1 Nature of the Journals

Table 2 presents the number of articles published by the six journals in the 1963-1984 period. The Z value [Lehmann, 1975, pp. 290-297]⁶ at the bottom of the table is a summary statistics relating the 22 year trend in the data. The table, however, aggregates numbers on a three-year-period basis except for the four-year period of 1963-1966.

TABLE 2. Journal by Year Frequency

Year	AOS	TAR	AUD	JAA	JAЕ	JAR	TOTAL
63/66		295				69	364
67/69		183				71	254
70/72		147				83	230
73/75		128				68	196
76/78	67	134		14		68	283
79/81	72	87	5	57	27	109	357
82/84	71	93	42	67	29	150	452
TOTAL	210	1067	47	138	56	618	2136
Z-value	+0.75	-4.40	+1.73	+2.60	+1.85	+4.03	
Significant trend		decr.				incre.	

Table 2 shows that, in terms of number of articles published, TAR dominated other journals until 1979 when JAR became dominant. TAR shows a significant decreasing trend while JAR shows a significant increasing trend. Significance is considered at the 0.01 level.

The significant decrease in quantity by TAR since the 1979-1981 period followed editor change. Stephen Zeff became the editor of TAR in 1979 and decided to segregate TAR's articles into main articles and notes. The notes section contained articles that "hitherto were published as main articles" [Zeff, 1979, p. 132], and most of the notes are not included in the MTDB. The significant increase in quantity by the JAR

⁶Lehman [1973] devised a nonparametric statistical method to test the increasing or decreasing trend in data. In this study, a yearly trend is tested. This method is a revised version of the Wilcoxon test. The sign of the Z values indicates the direction of the trend. The level of significance is determined through a normal probability distribution table.

beginning in the 1979-1981 period may be explained by the change in the JAR's editorial board. Besides the editor, JAR had fourteen editorial members before 1979, and twenty-six members thereafter. The board expansion might have accelerated the review process and therefore stimulated the interest of potential authors.

5.1.1 *Publication Taxons by Journals*

Table 3 examines the journals' predominant taxons.⁷ It displays the major taxons for four taxonomies and the percentage of occurrence of the dominant taxons. Cramer's V values which measure the degree of association of journals and taxonomies are also reported.⁸

Although the journals are different in characteristics, they can be classified into three groups by examining the percentages of the major taxons: TAR and JAA, JAR and JAE, and AOS and AUD. TAR and JAA have the same major foundation disciplines, schools of thought, and research methods.

However, the secondary modes of reasoning are different. TAR is more analytical while JAA is more descriptive. This probably can be explained by the fact that about half of JAA's board of advisors and contributors were practitioners who specifically solicited articles from practitioners whose emphasis was not the technical aspects of accounting research, until a change in editorship in 1986.

JAR and JAE have the same major foundation disciplines, schools of thought, and research methods. However, JAR is more analytical while JAE focuses more on regression analysis. JAE is also more economics/finance oriented. Its editorial policy and editors guide it to a narrow and specific line of research. The journal's title emphasizes the links of economics and accounting.

AOS and AUD have the same major foundation disciplines. However, AOS is more behaviorally and qualitatively oriented while AUD is more quantitative. In addition, AUD focuses on auditing while AOS includes all areas of accounting.

⁷A similar analysis, concentrating on comparing AOS to other journals can be found in Brown, Gardner & Vasarhelyi [1987].

⁸Phi's and contingency coefficients are also calculated. however, only the most conservative Cramer's V values are reported.

TABLE 3. Journal versus Taxonomy

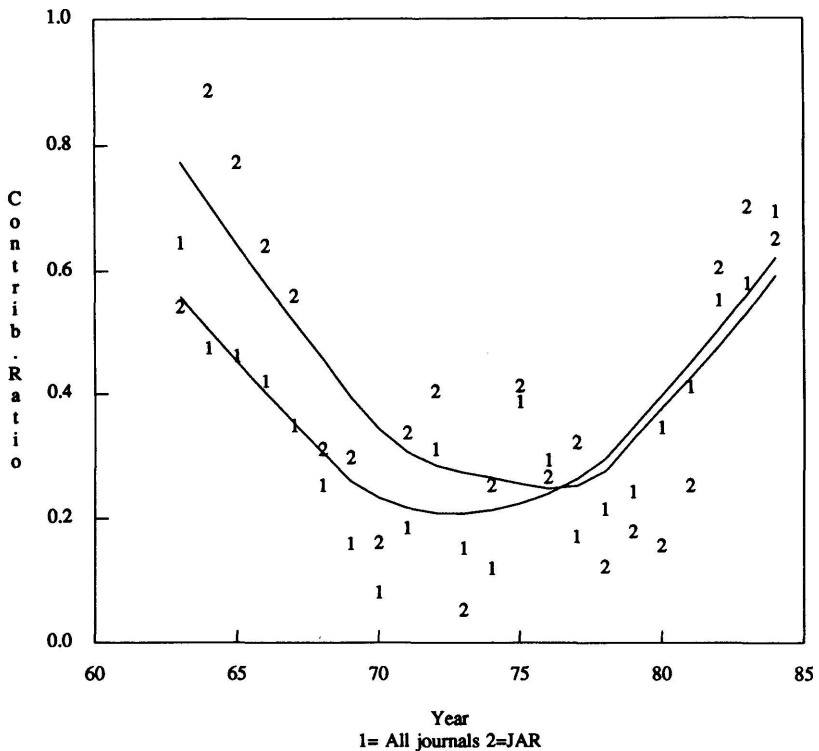
Taxonomy	Cramer's V	Journal	Major Taxons	Percentage
Foundation discipline	0.34	AOS:	accounting	31%
			psychology	25%
		TAR:	accounting	45%
			economics/ finance	33%
		AUD:	accounting	85%
			psychology	4%
		JAA:	accounting	69%
			economics/finance	15%
School of thought	0.27	JAE:	economics/finance	66%
			accounting	23%
		JAR:	accounting	38%
		economics/finance	18%	
Research method	0.21	AOS:	behavioral	49%
			accounting theory	31%
		TAR:	statistical modeling	47%
		AUD:	statistical modeling	42%
		JAA:	accounting theory	42%
			statistical modeling	86%
		JAE:	statistical modeling	50%
			statistical modeling	50%
Mode of Reasoning	0.20	AOS:	analytical - internal logic	41%
			opinion - survey	20%
		TAR:	analytical - internal logic	64%
			archival - primary	15%
		AUD:	analytical - internal logic	36%
			empirical - laboratory	23%
		JAA:	analytical - internal logic	58%
			archival - primary	26%
		JAE:	archival - primary	57%
			analytical internal logic	25%
	archival - primary	35%		
	analytical - internal logic	32%		
Mode of Reasoning	0.20	AOS:	qualitative	51%
			quantitative-descriptive	
			statistics	12%
		TAR:	qualitative	46%
			quantitative-analytical	31%
		AUD:	quantitative-analytical	30%
			qualitative	23%
		JAA:	qualitative	49%
			quantitative-descriptive	
			statistics	20%
JAE:	quantitative-regression	36%		
	quantitative-analytical	18%		
JAR:	quantitative-analytical	35%		
	quantitative-descriptive			
	statistics	14%		

The following three subsections deal with the three issues raised by DZ relating JAR to the accounting literature observed in this study: interdisciplinary integration, empirical research, and historic research.

5.1.2 JAR and Interdisciplinary Integration

Figure 1 displays the comparison of foundation disciplines between all the journals and JAR. The vertical axis displays the "contribution ratio" reflecting the proportion of articles having accounting as a foundation discipline. Therefore the lower the ratio the more articles having a non-accounting discipline as their foundation.

Figure 1. Contribution from other Disciplines: JAR vs All



The ratio of all articles (plotted with a 1) is lower than that of JAR (with a 2) until 1976 when JAR turns further towards the integration of other disciplines. The lines drawn in the chart use a 2/3 factor for smoothing the point fit.⁹ This graph does not show that the JAR has hastened integration to a great extent. It was below the average in its integration index during

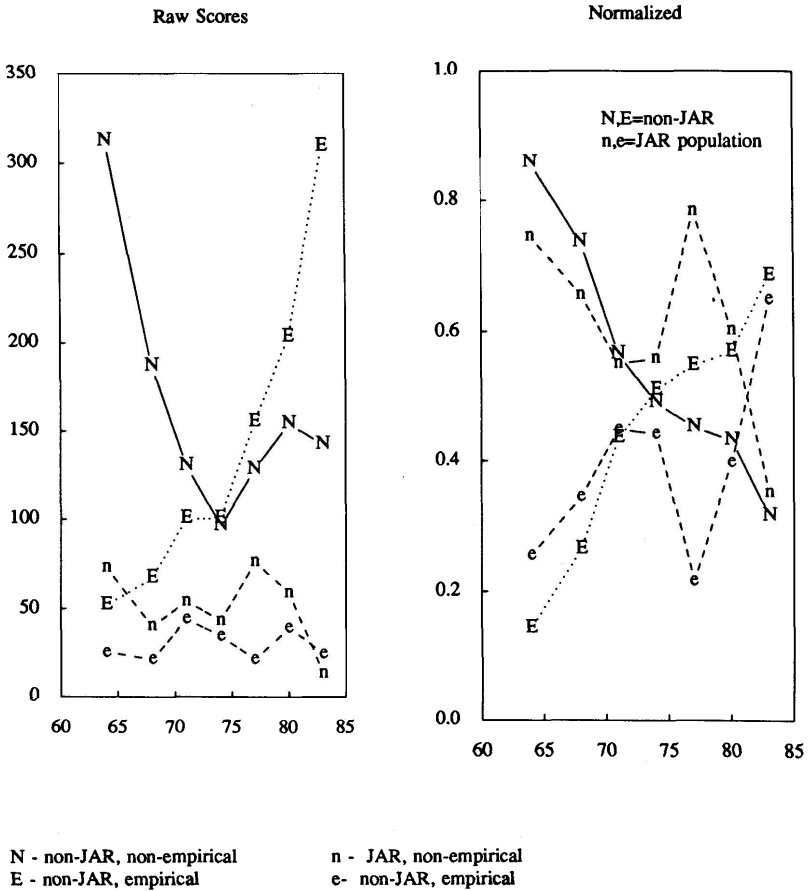
⁹See Becker and Chambers [1984] for the lowest procedure.

the first 13 years. Each of these journals published numerous articles with a non-accounting foundation discipline. In addition, the majority of AOS and JAE articles had a foundation discipline other than accounting.

5.1.3 JAR and Empirical Research

DZ also argue that the JAR has played a premier role in fostering empirical research. In Figure 2 we label research as empirical when its "research method" subcategory is empirical (case, field & laboratory), archival (primary & secondary) and

Figure 2. Empirical Research: JAR vs Others



N - non-JAR, non-empirical
 E - non-JAR, empirical

n - JAR, non-empirical
 e - non-JAR, empirical

opinion (survey).¹⁰ Consequently, non-empirical “research methods” entail the analytical subcategories of internal logic (“apriori” and analytic) and simulation studies.

Figure 2 compares the publication of empirical (case, field, laboratory, archival, and opinion) vs. nonempirical (analytical) research in JAR versus other journals. The charts show overall frequencies and percentages of articles by period.

The JAR behaves in a similar pattern to the rest of the literature prior to the 1970-1972 period in the overall frequency chart. Further examination of this issue, using a percentage plot, indicates that JAR started with a higher percentage of empirical papers than other journals before 1970 but had a lower percentage thereafter. Since that time the other 5 journals have had a higher average percentage of empirical articles than the JAR. For the 1963-1974 period the data entail only JAR and TAR therefore the chart depicts merely a comparison of these two journals. It shows that until 1974 the JAR had a higher percentage of empirical research. It is because prior to 1974 JAR published annually an issue of Empirical Research in Accounting (the title of its annual research supplement). Since 1974, the JAR decided to expand its annual supplement to include “other types of research” [Dopuch, 1974, p. ii]. Another puzzling observation, in Figure 2, is the sharp decrease in empirical research published in the JAR during the 1976-1978 period complemented by an analogous increase in the non-JAR population. This effect is difficult to explain considering the continuity of the JAR’s editorial policy and the reversion back to “normal levels” in the next period.

5.1.4 Historical Research

Figure 3 displays the number of articles dealing with accounting history topics. The picture shows a small but steady percentage of accounting history research in the literature. The numbers reported in Figure 3 for accounting history are conservative since the field developed its own journal, *The Accounting Historians Journal*, during this time period, and the journal is not represented in the database.

¹⁰Archival primary research relates to the use of empirical data from databases (e.g. COMPUSTAT) and/or financial reports. Data in this case are not generated and recorded by the researcher as in laboratory studies. Archival secondary studies relate primarily to literature studies where the source is articles that discuss a particular topic. This taxonomy was adopted from Buckley [1976] and is discussed in detail by Vasarhelyi, Bao and Berk. [1985, p. 10].

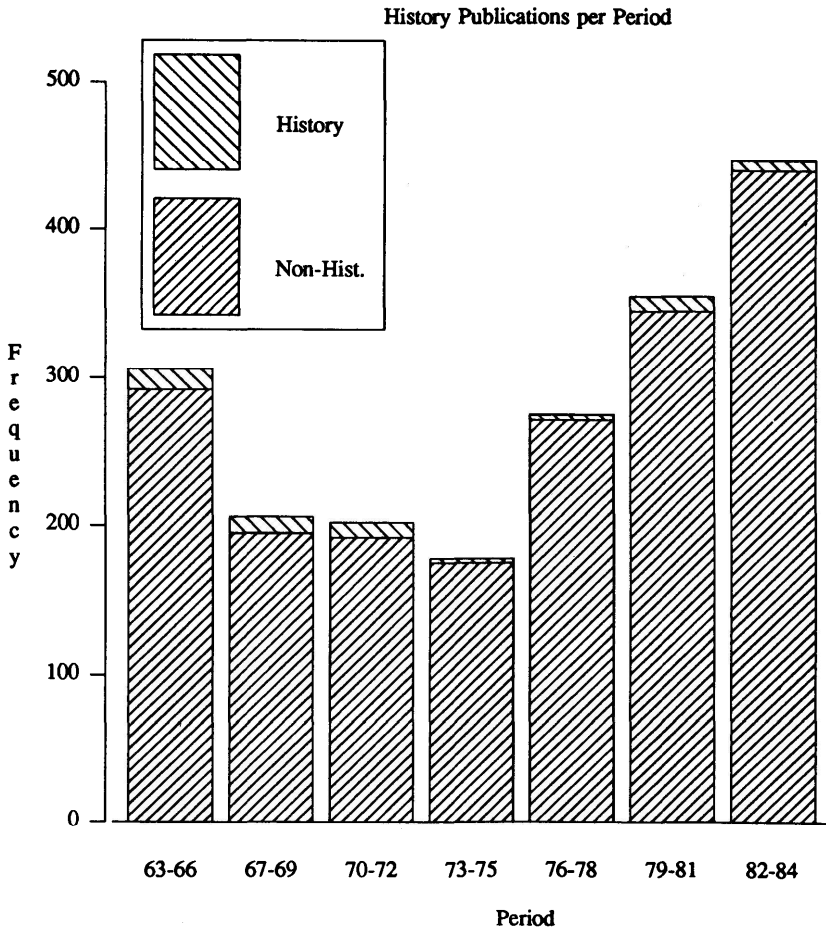
Figure 3. History Articles in CAR

Figure 3 can be contrasted with the 17 occurrences of the history articles in the JAR shown in Table 4.

TABLE 4. Accounting History Articles in the JAR and non-JAR

Year	63-66	67-69	70-72	73-75	76-78	79-81	82-84
JAR	5	6	5	1	0	0	0
non-JAR	9	5	5	2	4	10	7

The comparison of non-JAR and JAR confirms DZ's assertions vis-a-vis the JAR, but not vis-a-vis the entire sample. The increase in history articles in the non-JAR population since 1979 resulted from Zeff encouraging this type of research when he became editor of TAR [Zeff, 1983, p. 134].

5.2 Content of Accounting Research

The content of accounting research in the MTDB can be examined through the composition of taxons within the four paradigms and research tool taxonomies. Table 5 presents the major taxons (taxons with the higher frequency of occurrence) in each taxonomy.

TABLE 5. Major Taxons

Taxonomy	Taxons	Percentage
Foundation discipline	accounting	44%
	economics	18%
	psychology	12%
	mathematics/decision/game theory	6%
School of thought	statistical modeling	34%
	accounting theory	25%
	behavioral-other	11%
Research method	analytical-internal logic	51%
	archival-primary	22%
	empirical-laboratory	10%
Mode of reasoning	qualitative	36%
	quantitative-analytical	28%
	quantitative-descriptive	11%

Table 5 shows foundation discipline — accounting, school of thought — statistical modeling, research method — analytical-internal logic, and qualitative mode of reasoning dominating their respective taxonomies. The major imports are from economics and psychology. This partially explains the heavy adoption of archival-primary, empirical-laboratory research methods, statistical modeling, and behavioral schools of thought taxons as shown at the right column and bottom row of Table 6.

Further insight can be obtained by examining multivariate effects among these categorical variables. Table 6 tabulates research method versus school of thought. Cells contain frequencies with bold numbers emphasizing high frequency occurrences.

TABLE 6. Research Method vs School of Thought

	BEH. -HIP	BEH. -OTHER	STAT. MODE	ACCNTG. THEORY	ACCNTG. HIST.	INSTITU- TIONAL	OTHER	TOTAL
ANALYTICAL								
-INT.LOGIC	20	39	284	422	35	111	67	978
-SIMUL	2	1	47	8	0	2	4	64
ARCHIVAL								
-PRIMARY	4	5	324	45	4	28	33	443
-SECOND.	4	10	26	13	20	7	9	89
EMPIRICAL								
-CASE	1	6	7	13	0	3	4	34
-FIELD	1	21	10	2	0	0	3	37
-LABORAT.	87	88	21	11	0	2	3	212
OPINION								
-SURVEY	5	56	8	14	0	17	11	111
TOTAL	124	226	727	528	59	170	134	1968

* 166 values missing
chi-square = 643
degrees of freedom = 42

Research is clustered in the internal-logic accounting theory, primary archival-statistical modeling, and internal logic-accounting theory combinations.

The high chi-square value suggest that the two dimensions are not independent and indicate that the taxons are not fully orthogonal. They also reflect the real effects of preferences and biases by researchers. Further research may be needed to examine the effect of editor or editorial policy change over time upon the clustering shown in Table 6.¹¹

5.3 Trends within the Database

Table 7 examines the significant current trends of particular taxons in the literature. Two types of trends are examined. The first is the trend in absolute number of articles, and the second is the relative trend of percentage of publications.

¹¹For example Zeff [1983] expressed concern about the effect that the application of modern empirical and analytical research methods may have over the development of thought along classical approaches, in particular accounting history.

TABLE 7. Significant Trends of Taxons

Taxonomy	Taxon	Trend	
		Absolute Number	Percentage
Foundation Discipline	Psychology	I	
	Economics/Finance		I
	Accounting	I	I
School of Thought	Behavioral-HIPS	I	I
	Behavioral-Other	I	
	Statistical Modeling-EMH	I	I
	Statistical Modeling-Time Series	I	
	Accounting Theory	D	D
	Accounting History	D	
	Institutional		D
Research Method	Analytical-Internal Logic		D
	Archival-Primary	I	I
	Archival-Secondary	I	
	Empirical-Laboratory	I	I
	Opinion-Survey	I	
Mode of Reasoning	Quantitative-Regression	I	I
	Quantitative-ANOVA	I	I
	Quantitative-Factor Analysis	I	I
	Quantitative-Nonparametric	I	
	Quantitative-Analytical	I	
	Qualitative		D

*I = Significant increasing-trend at the level of 0.01

D = Significant decreasing-trend at the level of 0.01

The trends are determined by the Z-values [Lehmann, 1975, pp.290-297].

Most of the significant trends shown are increasing occurrence of taxons. However, one taxon (accounting theory) has a decreasing trend in absolute number and in percentage. One taxon (accounting history) has decreasing trend in absolute number while three taxons (institutional, analytical-internal logic, qualitative) have a decreasing percentage trend.

Table 7 also confirms that the absolute number of studies with a psychology foundation discipline is significantly increasing while the percentage of studies with an economics/finance foundation discipline is significantly increasing. Archival-primary and empirical-laboratory studies are increasing significantly in absolute number and in percentage. Accounting history studies in the database are decreasing in numbers but have neither a significantly increasing nor a decreasing trend in percentage.

Quantitative-regression, quantitative-ANOVA, and quantitative-factor analysis studies are significantly increasing in absolute number and in percentage. Analytical-internal logic, qualitative studies are decreasing significantly in percentage.

The analyses presented in Table 7 show the significant trends for the twenty-two-year period. They, however, do not show the configurations of the trends. A different, but substantially more detailed analysis can be performed using a graphics. For illustration purposes, the percentage trends of accounting theory and human information processing are shown in Figure 4.

Figure 4. Percentage Trends

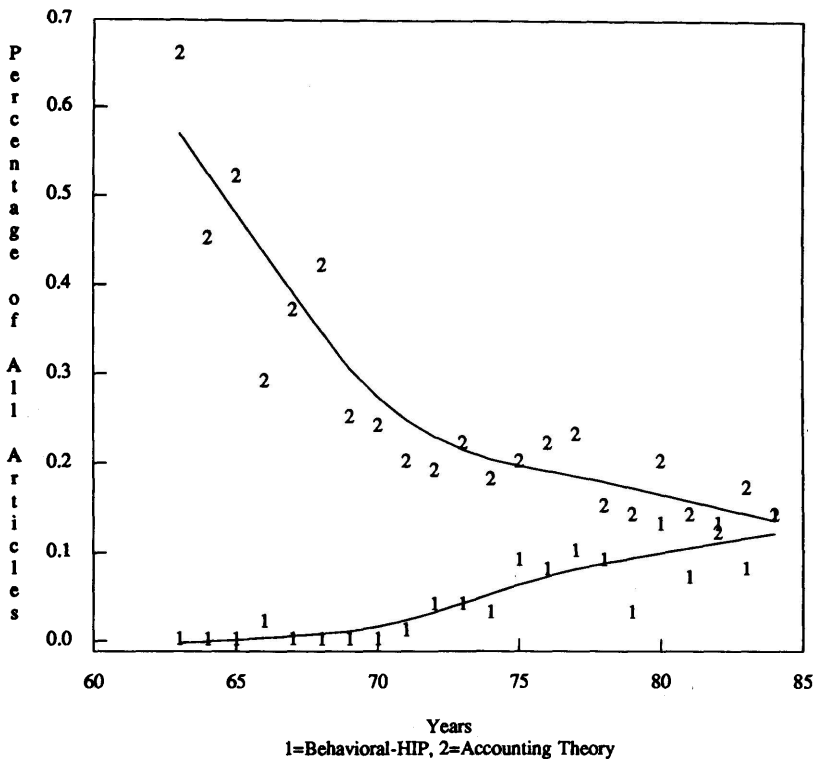


Figure 4 shows a steep decrease in the percentage of accounting theory studies over the years, particularly the 1965-1975 decade. Behavioral-HIPs studies, show a significant increase since 1970, then a new area of research.

The graphic analysis has also been applied to other taxons although the graphs are not presented. The graph for foundation discipline taxonomy shows that accounting is a dominant foundation. The curve is U-shaped with its dominance in the

1963-1969 and the 1976-1984 periods, and is supplanted by economics/finance and psychology based studies in the middle period.

The graph for the school of thought taxonomy shows a steeply decreasing trend in accounting theory research prior to 1972, and a much flatter decreasing trend thereafter. Both the behavioral and the statistical modeling taxons show a steadily increasing trend, although the latter dominates the former, during the twenty-two-year-period. Both accounting history and institutional research show a flat pattern.

The graph for research method taxonomy shows that both archival and the empirical research taxons have a steadily increasing trend. The analytical research taxon shows a continuously decreasing trend, dominates other taxons until 1981 when it is supplanted by archival research. Opinion research shows a flat pattern.

The graph for mode of reasoning taxonomy shows that quantitative research has a steadily decreasing trend prior to 1975, and a flat pattern thereafter. It dominates other taxons until 1972. The quantitative taxons, in general, have a steadily increasing trend during the twenty-two-year period.

6. Conclusions

This paper examined Contemporary Accounting Research through the classification of articles in this literature along four taxonomies. Both exploratory graphic techniques and confirmatory non-parametric statistics focused the examination on a set of issues to depict the recent development of the accounting literature. In addition, data were presented in such a manner to allow further examination of other issues by the readers.

Journal analysis led to the pairing of journals in their nature. TAR and JAA were matched, as well as JAE and JAR, and AOS and AUD.

DZ's assertions about the JAR, quoted earlier, are examined. There has been increased integration into accounting of ideas and methods from other disciplines by both the JAR and other journals. There is a clear increase of empirical research in the sample and the JAR led this pattern through the 1963-1969 period. There is substantial decrease in historical research in JAR but not in the entire literature.¹²

¹²The advent of the Accounting Historians Journal, and non-inclusion in the MTDB sample leads to the indications that the percentage of history articles in the literature must have substantially increased.

It was found that accounting imports its theories primarily from economics and psychology, particularly since 1976. Modeling studies cover about one-third of the literature. Despite its decreasing emphasis, a priori studies still comprise a substantial part of the literature leading to a large number of qualitative studies.

The analyses of time patterns show many significant increasing trends in frequency and some noteworthy decreasing trends. The most significantly and steadily increasing trends since 1963 are the behavioral, statistical modeling, archival, empirical, and quantitative studies. There was a significant decrease in accounting theory, analytical-internal-logic and qualitative studies since 1963. All of the above indicate a decreased emphasis on a priori studies.

The analysis and discussion in this paper barely scratched the richness of the data in the MTDB. A series of research questions such as the transition and evolution of basic paradigms, and the prediction of trends still require extensive studies.

REFERENCES

- Ashton, Robert H., *Human Information Processing in Accounting*, Studies in Accounting Research #17, American Accounting Association, Sarasota, Florida, 1982.
- Baiman, S., "Agency Research in Managerial Accounting: A Survey," *Journal of Accounting Literature*, Vol. 1, Spring 1982 pp. 154-212.
- Ball, Ray, "Index of Empirical Research in Accounting," *Journal of Accounting Research*, Vol. 9 No. 1, Spring 1971.
- Becker, Richard A. & Chambers, J. M. "S": *An Interactive Environment for Data Analysis and Graphics*," Wadsworth Inc., Belmont, Calif., 1984.
- Brown, L. D. and Vasarhelyi, M. A., *Accounting Research Directory: The Database of Accounting Literature*, Marcus Wiener Publishing Inc. New York, 1985.
- Brown, L. D. & Gardner, J. C., "Applying Citation Analysis to Evaluate the Research Contributions of Accounting Faculty and Doctoral Programs," *The Accounting Review*, Vol. LX, No. 2, April 1985, pp. 262-277.
- Brown, L. D. & Gardner, J. C., "Using Citation Analysis to Assess the Impact of Journal and Articles on Contemporary Accounting Research (CAR)," *Journal of Accounting Research*, Spring 1985a, pp. 84-109.
- Brown, L. D., Gardner, J. C. & Vasarhelyi, M. A., "An Analysis of the Research Contributions of Accounting Organizations and Society, 1976-1984," *Accounting, Organizations and Society*, Vol. 12, Number 2, 1987, pp. 193-204.
- Buckley, John W., *Research Methodology and Business Decisions*, National Association of Accountants, New York, 1976.
- Chambers, John M., Cleveland, W. S., Kleiner, B., & Tukey, P. A., *Graphical Methods for Data Analysis*, Wadsworth Inc., Belmont, Calif. 1983.
- Chatfield, Michael, "The Accounting Review's First Fifty Years," *The Accounting Review*, Vol 1, No. 1, 1975, pp. 1-6.

- Dopuch, N., "Editor's Preface," *Journal of Accounting Research: Research Supplement – Studies in Financial Accounting Objectives*, 1974, pp. ii.
- Dyckman, T. R. and Zeff, S. A., "Two Decades of JAR", *Journal of Accounting Research*, Vol. 22, No. 1, Spring 1984, pp. 225-297.
- Felix Jr., W. L. and Kinney Jr., W. R., "Research in the Auditor's Opinion Formulation Process: State-of-the-Art" *The Accounting Review*, April 1982 Vol. 57 pp. 245-27.
- Gonedes, J. N. And Dopuch, N., "Capital Market Equilibrium, Information Production, and Selection of Accounting Techniques: Theoretical Framework and Review of Empirical Work," *Supplement to Vol. 12: Journal of Accounting Research: 1974. Studies on Financial Accounting Objectives*, 1974, pp. 48-129.
- Hakansson, Nils, "Empirical Research in Accounting 1969-1970: An Appraisal," *Accounting Research 1960-1970: A Critical Evaluation*, Champaign, Ill., University of Illinois, 1973, pp. 137-73.
- Hofstedt, T. R., "A State of the Art Analysis of Behavioral Accounting Research," *Journal of Contemporary Business*, Autumn, 1975, pp. 27-49.
- Hofstedt, T. R., "Behavioral Accounting Research, Pathologies, Paradigms and Prescriptions," *Accounting, Organizations and Society*, Vol 1, No. 1, 1976, pp. 43-58.
- Ijiri, Y. Kinard, J. C., Putney, F. B., "An Integrated Evaluation System for Budget Forecasting and Operating Performance with a Classified Budgeting Bibliography," *Journal of Accounting Research*, Spring, 1968, pp. 1-28.
- Johnson, O., "On Taxonomy and Accounting Research," *Accounting Review*, January 1972, pp. 64-74.
- Kelly, L. "Positive Theory Research: A Review," *Journal of Accounting Literature* Vol. 2, Spring 1983, pp. 111-150.
- Kuhn, Thomas S., *The Structure of Scientific Revolutions*, University of Chicago Press, 1962.
- Lehmann, E. L., *Nonparametrics*, Holden-Day, 1975.
- Libby, R. and Lewis, B. L., "Human Information Processing Research in Accounting: The State of the Art," *Accounting Organizations and Society*, 1977, Vol. 2, No. 3, pp. 245-268.
- Libby, R. and Lewis, B. L., "Human Information Processing Research in Accounting: The State of the Art in 1982," *Accounting Organizations and Society*, 1982, Vol. 7, No. 3, pp. 231-285.
- Paton, William A., "Tendencies in Accounting Literature," Paper and Proceedings of the Ninth Annual Meeting, Vol. IX, No. 1, *American Institute of Accountants*, 1925.
- Rayburn, F. R., "Chronological Review of the Authoritative Literature on Interperiod Tax Allocation: 1940-1985," *The Accounting Historians Journal*, Fall 1986, pp. 89-108.
- Tukey, J. W., *Exploratory Data Analysis (EDA)*, Addison-Wesley Publishing Co., Reading Mass., 1977.
- Vasarhelyi, M. A., Boa, D. H. & Berk, J., "The Multiple Taxonomies of Accounting Research," working paper, Columbia University, 1985.
- Waller, W. and Jiambalvo, J. "The Use of Normative Models in Human Information Processing Research in Accounting", *Journal of Accounting Literature*, Vol. 3, Spring, 1983, pp. 201-223.
- Zeff, S., "Editorial," *The Accounting Review*, January 1983, pp. 129-134.
- Zeff, S., "Editorial," *The Accounting Review*, January 1979, p. 132.

APPENDIX A: Elements of Research

Dimension	Taxonomy	Taxon	Abbreviation		
Paradigms	* Foundation Discipline	Psychology	(P)		
		Sociology	(S)		
		Economics/ Finance	(E)		
		Engineering/Communication	(eN)		
		Mathematics/Decision/Game Theory/Statistics	(M)		
		Law	(L)		
		Accounting	(A)		
		Management	(mnGt)		
		Behavioral	(B)		
	* School of Thought	-Human Information Processing (HIIP)			
		-Other			
		Statistical Modeling	(S)		
		-Efficient Market Hypothesis			
		-Time Series, Econometrics			
		-Inform. Economics / Agency Theory			
		-Mathematical Programming			
	-Other				
	Accounting Theory	(T)			
	Accounting History	(H)			
Institutional	(I)				
Research Tools	* Research Method	Analytical -Internal Logic	(AnI)		
		-Simulation			
		Archival -Primary	(aRc)		
		-Secondary			
		Empirical -	(Emp)		
		-Case			
		-Field			
		-Laboratory			
		Opinion Survey	(Opi)		
		Quantitative -Descriptive Statistic	(D)		
	* Mode of Reasoning	-Regression	(R)		
		-ANOVA	(A)		
		-Factor Anal., MDS, Probit, etc.	(F)		
		-Non-parametric Statistics	(N)		
		-Correlation	(C)		
		-Analytical	(aNI)		
		Qualitative	(Q)		
		Data or Reference Set	Information ¹²	Financial Statements	(F)
				Internal Information	(I)
External Information	(E)				
Market Based Information	(M)				
Tax	(T)				
Accounting Area	Financial		(F)		
	Managerial		(M)		
	Audit		(A)		
	Information Systems		(I)		
	Treatment ¹³				

¹² This taxonomy was examined in an abbreviated form as described above.

¹³ See Brown & Vassarhelyi (1985), pp.418-420.

* This taxonomy was focused in this paper.

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THE EVOLUTION OF THE UNITARY TAX APPORTIONMENT METHOD

Abstract: Taxpayers and taxing jurisdictions are, by definition and motivation, opposing forces and, therefore, in continual conflict. Taxpayers strive to minimize their tax liabilities while taxing jurisdictions seek ways to maximize their tax revenues. The unitary tax apportionment method was conceived by taxing jurisdictions as a method to prevent taxpayers from avoiding their fair share of the tax burden. The method evolved from a fairly insignificant procedure for the assessment of local property taxes to a very controversial means of apportioning the worldwide income of multinational corporate groups. Taxpayers have challenged the unitary tax apportionment method by utilizing economic sanctions, the legal system and the political process.

This paper traces the effect of taxpayers' judicial, political and economic actions on the evolution of the unitary tax apportionment method. The study demonstrates that although taxpayers challenged this expansion numerous times in the courts and through the political process, it was not until taxpayers used economic sanctions that the states began to restrict the reach of the unitary method.

Public law, case law, position statements, interviews and journal and newspaper articles provided the data for this study.

INTRODUCTION

When a business has operations within one tax jurisdiction, the resources and activities of that business are subject to tax only in that jurisdiction. However, when a business has operations in more than one tax jurisdiction, it is necessary to determine and tax the income and property values attributable to each jurisdiction in which the business operates. Three methods may be used in this determination: separate accounting, formula apportionment and specific allocation. The method used depends on the nature of the taxpayer's business and the laws of the tax jurisdiction.

If the business activity within a tax jurisdiction is not connected with the business activity outside the jurisdiction, separate accounting is the appropriate method for dividing the

tax base. Separate accounting divides the operations and resources of a multi-jurisdictional business into geographically separate units to segregate the within-jurisdictional activities from those arising elsewhere. Those activities are then treated as separate entities and are accounted for and subject to tax independently. Because this method does not recognize the "contributions to income resulting from functional integration, centralization of management and economies of scale" [*Mobil Oil Corp.*, 445 US 425], this segregation of income and property is clear and accurate only if the business within the jurisdiction actually is, in fact, separate and distinct from that outside the jurisdiction.

If the business activity within a tax jurisdiction is connected with the business activity outside the jurisdiction, the entire business is considered to be a single unit whose resources and activities within the jurisdiction are an inseparable part of a business that is carried on in several jurisdictions and contribute to the overall tax base. Therefore, it is necessary to consider the resources and operations of the entire business unit, of which the within-jurisdictional activities are a part, to determine the tax base attributable to each tax jurisdiction. This is accomplished by (1) combining the resources and/or activities of the entire business, regardless of geographic location, to determine the combined tax base; (2) calculating the apportionment ratio based on the required factor formula; and (3) applying the appropriate apportionment ratio to the combined tax base. Tangible property, intangible property, capital stock, gross receipts and net income have been used as the tax base. The factors utilized to calculate the apportionment ratio have included tangible and intangible property, payroll, sales, manufacturing costs, inventory, expenditure and net cost of sales. The apportionment ratio is a percentage, the numerator of which is the value of the factor attributable to the taxpayer in the taxing jurisdiction and the denominator of which is the value of the factor attributable to the taxpayer everywhere. The calculation of the apportionment ratio must consider the extent of the apportionment. Taxing jurisdictions may include in the denominator the value of the factors attributable to the taxpayer worldwide, while others may limit the factors to those arising only within the United States. Thus, the formula apportionment method recognizes that the resources and income-producing activities of an integrated, interdependent business cannot be isolated.

When the tax base can be directly traced to a particular tax jurisdiction and is not related to overall business operations, specific allocation may be used. This method attributes certain resources and activities, in their entirety, to the tax jurisdictions in which they are located. Specific allocation is often applied to real and personal property, patents and copyrights and to the income that is generated from these items.

THE ORIGIN OF THE UNITARY METHOD 1800-1899

In the 1800s, local governments levied taxes on property located within their jurisdictions. As businesses expanded their operations across city, county and state lines, it became difficult for each tax jurisdiction to determine its fair share of the entity's property value subject to tax. The use of apportionment can be traced to New Hampshire when, in 1842, that state enacted a law which assigned the responsibility of administering the assessment of railroad property to a state board. The board then apportioned the resulting tax revenue

Table 1
 The Evolution of Unitary Apportionment
 1842 to 1988

Year	State Action	Property Base	Scope	Apportionment Factors
1842	New Hampshire State Law	PROPERTY	INTRASTATE (local:state)	PROPERTY
1868	Pennsylvania State Law		INTERSTATE (state:U.S.)	
1911	Wisconsin State Law			
1917	New York State Law	MULTIPLE FACTORS		
1936	General Power of California Tax Commissioner (Combined Report)			WORLDWIDE (state:worldwide)
1988	Florida State Law (Subsequently Repealed)	SALES & USE	WORLDWIDE MULTICORPORATE GROUPS	

among the state and the localities [Runke and Fender, 1977, p. 26]. The use of apportionment prevented firms from manipulating their asset values in such a way that higher values would be reported in jurisdictions with low tax rates.

The Pennsylvania Statute of May 1, 1868, applied the apportionment concept to the tax base of an entire firm. In doing so, Pennsylvania included the firm's out-of-state assets and activities in the apportionable base. The statute levied a tax on the capital stock of all corporations doing business in Pennsylvania. The assessment on railroads was based on the ratio of the corporation's in-state railroad track mileage to its mileage in all states. The act also imposed a gross receipts tax which was computed by apportioning the gross receipts of a company based upon the proportion of track mileage within the state [88 US 492]. Thus, the unitary method expanded from an *intrastate* method to include *interstate* commerce.

Interstate apportionment was soon adopted by other states. On March 4, 1869, the State of Kansas approved a measure which provided for the assessment of railroad property by a board of county clerks. The assessment included all of the property owned by the railroad, including that which was located in other states. The assessment was apportioned between the states and then among the Kansas counties and cities through which the railroad ran based upon the proportion of the property's value within each county. The rolling stock was apportioned according to the track mileage within the county [136 Kansas Reports 210].

On April 8, 1869, the State of Delaware levied a tax on the capital stock and on the net profits of all railroad or canal companies incorporated in Delaware and doing business within the state. The earnings and capital stock subject to the tax were apportioned according to the proportion of the length of the road or canal within the state [85 US 206].

The Kansas apportionment formula for the assessment of taxes was challenged and upheld in the 1871 case of *Missouri River, F.S. & G.R. Co.* [136 Kansas Reports 210]. The Kansas Supreme Court ruled that:

A railroad is an entire thing and should be assessed as a whole . . . A portion of a railroad, running through one township only, would be worth but little if anything, while that same portion, in connection with the balance of the road, might be invaluable. The legislature have wisely provided that each road shall be assessed as a whole, and then that assess-

ment shall be apportioned for taxation to each county, township, etc., through which the road runs.

The decision distinguished the *taxation* of out-of-state property from the *use* of out-of-state property to value the property within the state:

... but the assessment of property out of the state or out of the taxing districts is not made for the purpose of taxing said property, but only for the purpose of ascertaining the value of the property within the state and within the taxing districts . . . a railroad is an entire thing, and cannot be valued or assessed except as a whole.

The states continued to adopt the apportionment method. On March 30, 1872, the State of Illinois assessed a tax on the capital stock and franchise of railroads based on the proportion of track mileage within each county or city [92 US 575].

Corporations, however, continued to resist the reach of apportionment by challenging, in court, the apportionment method. In the 1874 *Delaware Railroad Tax* [85 US 206] case, the taxpayer argued that the apportionment method imposes taxes upon property beyond the jurisdiction of the state and conflicts with the power of Congress to regulate commerce. The United States Supreme Court, however, approved the method of apportionment and ruled that a tax proportioned according to track mileage was a tax on the corporation itself; it was not a tax on the stockholders or on the property of the corporation.

The Supreme Court also upheld the Commonwealth of Pennsylvania's right to use the apportionment method in the 1875 *Erie Railway Company* [88 US 492] case. The Court ruled that the state had the power to impose the tax and that the extent and proportion to which it was imposed belonged to the judgment and discretion of the state.

The railroad companies also unsuccessfully challenged the Illinois statute. They argued [*State Railroad Tax Cases*, 92 US 575] that distributing the assessed value of property without regard to its actual location was illegal. In this 1876 case, the Supreme Court affirmed the use of the apportionment method and established what has become known as the "unit rule":

The theory of the system is manifestly to treat the railroad track, its rolling stock, its franchise and its capital, as a unit for taxation and to distribute the assessed value of this unit according as the length of

the road in each county, city and town bears to the whole length of the road.

The original unit rule, which is also referred to as the unitary apportionment method, was based on the concept that, due to the physical connection of railroad property, the property value in each jurisdiction contributed to the value of the entire business:

The track of the road is but one track, from one end of it to the other, and, except in its use as one track, is of little value . . . Destroy by any means a few miles of this track, within an interior county, so as to cut off the connection between the two parts thus separated, and, if it could not be repaired or replaced, its effect upon the value of the remainder of the road is out of all proportion to the mere local value of the part of it destroyed.

On April 27, 1893, the State of Ohio assessed a tax on the property of express companies in several states. Ignoring the location of the property among the states, Ohio's interstate property apportionment was based on the proportion of mileage of telegraph lines within the state relative to the firm's total telegraph mileage nationwide. This unitary method of apportionment was challenged, but upheld in the 1897 Supreme Court cases of *Adams Express Company*, *American Express Company*, and *The United States Express Company* [165 US 194, 166 US 185]. The Court established the principle that a business unit is determined by considering its use and management, rather than its physical location. When property is used in several states and it contributes to the firm as a whole, its value must be allocated among the states. The Court recognized that the property value subject to tax includes both tangible and intangible property and that the property value of a business unit subject to tax exceeds the sum of the values of its individual properties:

. . . whenever separate articles of tangible property are joined together, not simply by a unity of ownership, but in a unity of use, there is not infrequently developed a property, intangible though it may be, which in value exceeds the aggregate of the value of the separate pieces of tangible property.

THE EXTENSION OF THE UNITARY METHOD TO INCOME 1900-1959

At the turn of the century, state expenditures began to increase as the states began to provide additional services to their constituents. Because property taxes were unpopular and difficult to administer, new sources of revenue were needed. Although several states imposed income taxes following the panic of 1837 and the Civil War, those taxes were also unpopular and difficult to administer. In 1911, Wisconsin enacted the first successful modern state income tax. This tax recognized the need to account for the income of unitary multi-jurisdictional corporations and allowed the use of separate accounting, specific allocation and formula apportionment. Thus, the unitary method evolved to include both an apportionment of property value and taxable income. The Wisconsin law provided for the apportionment of *income* based upon the value of *property*, sales and manufacturing costs within the state. Virginia (1915) and Missouri (1917) also imposed direct income taxes and provided for formula apportionment. Some states were unable to levy an income tax because of constitutional prohibitions against direct taxes. Therefore, states such as Montana (1917), New York (1917) and Massachusetts (1920), levied indirect taxes in the form of franchise or privilege taxes which were based on net income. New York and Massachusetts also provided for formula apportionment. Massachusetts used a three-factor formula based on property, payroll and sales [House Report No. 1480 on State Taxation, 1964]. The formula was based on the theory that the factors were a source of the taxpayer's income or a source of costs to the tax jurisdiction. Property was included as an apportionment factor, because it reflected the contribution of capital to the generation of income. In addition, the amount of property located in a jurisdiction determined the cost of the services, such as highways and fire and police protection, provided to the business by the local government. Similarly, payroll represented the income-producing value of employees and the cost of services such as schools, pollution control and welfare benefits provided by the government to the employees of the business. Sales were representative of income because they indicated the level of business activity within the jurisdiction [Hellerstein, 1983]. This three-factor formula is now the most widely used unitary method and is commonly referred to as the Massachusetts formula.

Underwood Typewriter Company [254 US 112] challenged the State of Connecticut's single-factor method of apportionment in 1920. The Supreme Court, however, supported the application of the unitary method for income tax purposes. It determined that the profit of the multi-jurisdiction business was earned by a single "series of transactions beginning with manufacture in Connecticut and ending with sale in other states" and was, therefore, subject to apportionment. The only limitation placed on the use of the unitary method was that the formula must not be inherently arbitrary or produce an unreasonable result.

The unitary method was then extended to vertically integrated businesses operating in the U.S. and foreign countries. In 1924, *Bass, Ratcliff and Gretton Limited* [266 US 271] argued that New York's worldwide unitary tax apportionment method (WUTAM) violated the internationally accepted taxation method of separate accounting and was unconstitutional. The Supreme Court ruled that the British corporation was a unitary business whose profits were earned by "a series of transactions beginning with the manufacture in England and ending in sales in New York." Therefore, worldwide business profits were deemed to be apportionable and such apportionment was not an unconstitutional burden on foreign commerce.

By the 1930s, the concept of the unitary method was well established; however, the apportionment formula was disputed. In 1931, the Supreme Court ruled that, based on the facts of the case, North Carolina's one-factor unitary allocation method, which produced a 250% spread between the income reported under the separate accounting method and the unitary method, was unreasonable [*Hans Rees' Sons, Incorporated*, 283 US 123].

In 1936, California instituted the concept of the combined report. The combined report was not based on a specific California law, but was derived from the general power and duty of the Franchise Tax Commissioner to determine the income attributable to sources within the state [*Edison California Stores, Inc.*, 183 P.2d 16]. The purpose of the combined report was to prevent controlled corporations from manipulating intercompany transactions to avoid tax and to treat multi-corporate businesses as a unit in the computation and apportionment of their total income. Because multi-corporate unitary groups were treated as a single corporation whose total multi-jurisdictional income was subject to apportionment, the combined report eliminated the potential for tax avoidance by

the establishment of different corporations in different states. The combined report differed from a consolidated return in that the combined report was an information return, not a tax return [Keesling, 1975].

In 1936, the State of California applied the three-factor unitary method of apportionment to an Illinois corporation with several divisions, one of which was located in California, in accordance with California law. This law stated:

... if the entire business ... is not done within this State, the tax shall be according to or measured by that portion thereof which is derived from business within this State. The portion of net income derived from business done within this State, shall be determined by an allocation upon the basis of sales, purchases, expenses of manufacturer, pay roll [sic], value and situs of tangible property ... [General Laws, Act 8488, Vol. 2, p. 3858, Stats. 1929, pp. 19, 24, amended by Stats. 1931, p. 2226, Stats. 1935, p. 965]

California argued that the activities of the corporations within the state were not separate and distinct from those outside the state, and therefore, the use of the unitary method was appropriate. The California Supreme Court [*Butler Bros.*, 111 P.2d 334, 1941] agreed with the State's position:

It is only if its business within this state is truly separate and distinct from its business without this state, so that the segregation of income may be made clearly and accurately, that the separate accounting method may properly be used. Where, however, interstate operations are carried on and that portion of the corporation's business done within the state cannot be clearly segregated from that done outside the state, the unit rule of assessment is employed as a device for allocating to the state for taxation its fair share of the taxable values of the taxpayer.

The decision of the court established a three-prong test which is now widely used to identify a unitary business and which supported the finding of a unitary business in this case:

- 1) unity of ownership;
- 2) unity of operation as evidenced by central purchasing, advertising, accounting and management divisions; and
- 3) unity of use in its centralized executive force and general system of operations.

On appeal in 1942, the U.S. Supreme Court [*Butler Bros.*, 315 US 501] supported the California Supreme Court's finding of a unitary business, stating; "There is unity of ownership and management. And the operation of the central buying division alone demonstrates that functionally the various branches are closely integrated." Further, "we cannot say that property, payroll, and sales are inappropriate ingredients of an apportionment formula."

The expansion of the reach of the unitary method from single corporations with multiple divisions to multiple corporations was supported by the California Supreme Court in the case of *Edison California Stores* [183 P.2d 16] in 1938. Edison consisted of a Delaware corporation and fifteen wholly owned subsidiary corporations, each of whom operated only within a particular state. California treated the parent and its subsidiaries as a single unitary business and applied three-factor apportionment to the combined income. The California Supreme Court established that the unitary method could be applied because the elements of a unitary business (unity of ownership, operation and use) were present. The organization of a unitary business as separate corporations would not defeat the taxation of a business as a unit. The court also established an additional test (the dependency test) to support the finding of a unitary business:

If the operation of the portion of the business done within the state is dependent upon or contributes to the operation of the business without the state, the operations are unitary; otherwise, if there is no such dependency, the business within the state may be considered to be separate.

In addition, the court determined that the power to assert the unitary method emanates from the authority of the state tax commissioner to compute net income in accordance with a method that clearly reflects income, rather than from an authority to require consolidated returns.

In the 1950s, states began to apply the unitary method to interstate income of corporations incorporated outside of a state in which the firm engaged in very limited activities. In 1959, the Supreme Court supported this expansion of the unitary method in three cases. In the case of *Northwestern Portland Cement Co.* [358 US 450], the Court ruled that the state could apportion income even when the firm only solicited sales orders and maintained local sales offices. In the case of *Brown-Forman Distillers Corp.* [359 US 28], the Court ruled that the

state could apportion income when representatives called on wholesalers but did not solicit orders. Finally, in the case of *ET & WNC Transportation* [359 US 28], the Court ruled that an interstate motor carrier was liable for income tax in the states it served.

Despite taxpayers' efforts to limit the scope of the unitary method by judicial means, the courts continued to support the tax authorities in their broad interpretation of the method. During the years from 1870 to 1959 (Table 1), the unitary method expanded significantly. In 1842, the unitary method was used as a method of determining the property tax of *intrastate* businesses based upon their share of property value. By 1959, the unitary method was used to determine the income tax of multinational corporate groups based upon their proportionate share of worldwide payroll, sales and property even though only limited business activities occurred within a particular tax jurisdiction.

THE EFFECT OF POLITICAL AND JUDICIAL ACTION ON THE UNITARY METHOD 1959-1983

Taxpayers strongly opposed the judicial decisions that supported the expansion of the unitary method and they exerted pressure on Congress to enact legislation limiting the scope of the unitary method. In response to this pressure, Congress passed Public Law 86-272 in 1959. This law prevented states from imposing a net income tax on a business if the only activity of the business in the state was the solicitation of orders or the delivery of goods to customers when the delivery of orders was filled from outside the state. The law did not apply to service and financial companies.

Public Law 86-272 also directed the House Judiciary Committee and the Senate Finance Committee to study state taxation of interstate commerce and to propose appropriate federal legislation. A report was published in 1964 and 1965 recommending that federal legislation be enacted to provide uniform standards, tax bases, rules for division of income among states and procedures for the administration of those rules.

The states, however, strongly resented and resisted the prospect of federal intervention in state tax matters. The report prompted seven states to enter into the Multistate Tax Compact in 1967. The Compact established the Multistate Tax Commission to improve state tax administration and to en-

Table 2

The Effect of Judicial and Political Actions on the Unitary Method
1959 to 1983

<u>Year</u>	<u>Category</u>	<u>Action</u>	<u>Effect</u>
1959	Political	Taxpayers Pressured Congress	Public Law 86-272
1959	Political	Passage of Public Law 86-272	Recommended Federal Legislation
1965	Political	Federal Legislation Recommended	Multistate Tax Compact Established
1975	Political	Tax Treaties Negotiated	U.K. Unsuccessfully Introduced "Water's Edge" Concept
1979	Political	Unitary Tax Campaign Formed	Lobbied against WUTAM
1983	Judicial	<u>Container</u> Case Decided	Supreme Court Ruled in Favor of the States
1983	Political	Foreign Governments Protested <u>Container</u> Decision	U.S. Filed Amicus Brief Supporting Rehearing & Federal Legislation
1983	Political	President Reagan Formed Unitary Taxation Working Group	Recommended Federal Legislation
1983	Judicial	<u>Alcan Aluminum</u> Case Decided	Courts Refused to Rule on Case U.S. filed Amicus Brief
1983	Judicial	<u>Shell Petroleum</u> Case Decided	Supreme Court Refused to Hear Appeal-10 European Countries Filed Amicus Brief

courage uniformity among state laws as they applied to multi-state business. The Compact provided for arbitration among the states and multistate audit procedures. It endorsed the rules of the three-factor apportionment formula, with an optional computation for small taxpayers with limited activities within a state.

The governments of foreign countries began to protest the application of the unitary method to the worldwide income of multinational corporations. These governments argued that the WUTAM, as imposed by the states, was inconsistent with international agreements entered into by the U.S. government and had a negative effect on international relations.

In 1975, the U.S. was involved in income tax treaty negotiations with the United Kingdom (U.K.). For British-based companies operating in the U.S., the U.K. requested that income subject to apportionment in a state be limited to income earned within the United States. This concept is called the water's edge method. The provision was deleted from the treaty before it was ratified by the U.S. Senate in 1978. The

British Parliament ratified the treaty only after being assured that the unitary problem would be solved. Other countries also unsuccessfully requested such provisions in their U.S. income tax treaties. Some countries threatened postponement of treaty negotiations, because they were committed to the water's edge method and opposed the WUTAM [Brown, Leegstra & Looram, July 1985, pp. 36-41].

In 1979, the Unitary Tax Campaign (UTC), a lobbying group composed of U.K. multinational corporations (MNCs), formed to protest the WUTAM. The UTC and other British MNCs used the political process by working with the U.K. government to exert pressure on the U.S. government and the state governments to pass legislation prohibiting the use of the WUTAM [Interview with Andrew M. Smith of the UTC].

California's three-factor unitary method was opposed by U.S. MNCs. In 1983, *The Container Corporation of America* [103 S.Ct. 2933] asked the courts to declare the method unconstitutional. The U.S. Supreme Court affirmed the California law and stated that the Court would support state court decisions unless they were unreasonable. However, the decision had substantial political repercussions.

Several foreign governments protested the *Container* decision and asked President Ronald Reagan to order the Solicitor General to file an amicus curiae brief in support of a rehearing of this decision and to support federal legislation to abolish the WUTAM. They contended that the *Container* decision discouraged foreign commerce and would undermine foreign policy. The President did not order the brief to be filed, but asked the Cabinet Council on Economic Affairs to study the issue. The Council recommended that federal legislation be drafted to confine the income subject to tax by the states to that earned within the United States. President Reagan responded to this recommendation by forming the Worldwide Unitary Taxation Working Group to achieve voluntary compliance at the state level. The Working Group consisted of representatives of federal and state government, U.S. MNCs, the National Association of Tax Administrators and the Secretary of the Treasury. At the time the Working Group was established, 12 states had imposed the WUTAM (Alaska, California, Colorado, Florida, Idaho, Indiana, Massachusetts, Montana, New Hampshire, North Dakota, Oregon and Utah).

The Working Group arrived at a consensus, with qualified endorsements, on three issues: (1) adoption of the water's edge concept for U.S. and foreign corporations, (2) increased federal

assistance to and cooperation with the states to provide taxpayer disclosure and compliance and (3) competitive balance for U.S. MNCs, foreign MNCs and domestic corporations. The Working Group did not arrive at a consensus recommendation for the taxation of dividends paid by foreign subsidiaries to U.S. parent corporations or for the taxation of 80/20 companies (U.S. MNCs who do more than 80% of their business abroad). The Secretary of the Treasury submitted his report and the separate views of the Working Group members to the President in 1984. The Secretary also recommended that federal legislation be enacted to resolve the issue if the states did not prohibit the use of the WUTAM by mid-1985 [Treasury Dept. Working Group Report, August 1984].

Although *Container* established that the WUTAM as applied to a domestic corporation was constitutional, the court did not specifically address the constitutionality of the WUTAM as applied to a foreign parent. Therefore, in 1983, Alcan Aluminum, Ltd., a Canadian company, challenged the constitutionality of California's WUTAM. Alcan claimed that the method resulted in a direct tax on its income rather than on the income of its subsidiary and that it had been injured as a shareholder of the subsidiary. The Justice Department filed an amicus curiae brief in support of Alcan, stating that the WUTAM violated the federal government's power to conduct foreign relations and the foreign commerce and supremacy clauses of the Constitution. Despite the U.S. Justice Department's support, the Federal District Court in New York [558 F. Supp. 624 (S.D. N.Y. 1983)], the Second Circuit Court of Appeals [No. 83-7236 (2d Cir. June 17, 1983)], the Seventh Circuit Court of Appeals [724 F. 2d 1294, 1299 (7th Cir. 1983)] and the Supreme Court [104 S. Ct. 1457 (1984)] refused to rule on the Alcan case.

Shell Petroleum, a Dutch firm, also challenged California's WUTAM. The Ninth Circuit Court of Appeals ruled that the tax did not injure Shell independently of the U.S. subsidiary and, therefore, Shell did not have the right to challenge the method. The Supreme Court refused to hear an appeal of this case, even though ten European countries with U.S. business investments of \$61 billion filed an amicus brief in favor of Shell.

From 1959 to 1983, taxpayers used both judicial and political processes to challenge the unitary method (Table 2). However, these political and judicial actions resulted in only a few modifications in state law. Therefore, MNCs and foreign governments felt compelled to utilize other methods to encour-

age the states to withdraw their liberal interpretation of the unitary method.

ECONOMIC CHALLENGES TO THE EXPANSION OF THE UNITARY METHOD AND THEIR EFFECT 1983-1988

A key factor that influenced the states to voluntarily consider the enactment of the water's edge method was the loss and threat of loss of foreign economic investment. Foreign business usually invests in the U.S. by expanding existing facilities or by building new manufacturing sites that are selected on a competitive basis. U.S. communities actively encourage and invite economic development, because they believe it creates new jobs, reduces welfare and unemployment costs and increases property and income tax revenue. U.S. communities are sensitive to any factor which might discourage investment.

Thus, when 27 out of 28 companies raised the unitary issue during an Oregon trade mission to Japan, community leaders began to question the continued use of the WUTAM [Curry, April 28, 1984, p. 2]. In addition, a survey of 120 Japanese companies revealed that 92 would make multi-million dollar investments in California if the WUTAM was repealed [Bleiberg, August 20, 1984, pp. 10-11].

In 1983, Keidanren (Federation of Economic Organizations), a trade group consisting of 812 Japanese corporations and 110 associations, and CRISIS (Committee to Restore an Internationally Stable Investment System), a group of 14 of the largest MNCs in the European Economic Community, began to lobby to restrict unitary apportionment to the water's edge. These groups indicated that they would withhold economic investment in those states that imposed the WUTAM [Bleiberg, December 5, 1983, pp. 10-11]. This was followed by an announcement by Mitsubishi that it would locate a manufacturing facility generating \$37.3 million in tax revenue over the following five years in South Carolina, rather than in Oregon, because of the WUTAM [Schuh, August 1, 1984, p. 10]. In addition, Wacker Siltronics and several other firms indicated that the WUTAM was the factor which caused them to locate proposed plants in neighboring non-WUTAM states. NEC stated that it would locate in Oregon only if the state dropped the WUTAM [Schuh, August 1, 1984, p. 10].

In Indiana, Sony Corp. delayed announcing a large economic investment in the state until the WUTAM was aban-

Table 3

Economic Challenges to the WUTAM & Their Effect

1983-1988

<u>Year</u>	<u>Category</u>	<u>Action</u>
1983	Challenge	27 Japanese firms questioned Oregon's use of the WUTAM.
	Challenge	92 Japanese firms revealed California investment plans if WUTAM was repealed.
	Challenge	812 Japanese corporations and 110 associations and 14 of the largest MNCs in the EEC threaten to withhold U.S. economic investment unless WUTAM is repealed.
1984	Challenge	Mitsubishi announced plan to locate in South Carolina, a non-WUTAM state.
	Challenge	Wacker Siltronic, NEC, Sony Corporation, Kyocera International, Alcan, IBM and others either reduced or threatened to reduce investment in WUTAM states.
	Effect	Oregon, Massachusetts and Florida abandoned the WUTAM and adopted a Water's Edge approach.
1985	Effect	Indiana and Colorado abandoned the WUTAM and adopted a Water's Edge approach.
	Challenge	British House of Commons voted to eliminate dividend tax credit for U.S. firms based in WUTAM states.
1986	Effect	Utah, Idaho and New Hampshire abandoned the WUTAM and adopted a Water's Edge approach.
	Effect	California voted to allow a Water's Edge election for Worldwide Unitary firms.
1987	Effect	North Dakota voted to allow a Water's Edge election for Worldwide Unitary Firms.
	Effect	Montana abandoned the WUTAM and adopted a Water's Edge approach.
	Challenge	Service industries threatened to boycott Florida.
1988	Effect	Florida abandoned a sales and use tax based on WUTAM.

WUTAM = Worldwide Unitary Tax Apportionment Method
MNCs = Multinational Corporations
EEC = European Economic Community

done [Bleiberg, August 20, 1984, pp. 8-9].

Kyocera International shut down a major facility in California because it contended that the WUTAM caused its tax bill to exceed its earnings during the previous 10 years. Sony and Alcan also cited the WUTAM as the reason for not expanding their California facilities [Bleiberg, August 20, 1984, pp. 8-9].

In Florida, IBM cancelled a proposed expansion because of the effect of the WUTAM on its state tax liability [Kiesel, American Bar Association Journal, June 1984, pp. 38-39].

The MNCs argued that the WUTAM not only increased their state tax liability, but also increased their accounting costs. In some instances, they argued that the cost of gathering the data to comply with the WUTAM was often greater than the tax itself. MNCs must restate and translate foreign finan-

cial and tax accounting reports into a format required by the state. Foreign MNCs often refused to furnish information on their foreign operations, arguing that to do so would violate other countries' secrecy laws. When such information was not available, states often computed the state tax with available public information [Brown, Leegstra & Loram, July 1985, pp. 36-41].

In California, over 90 U.S. MNCs formed the California Business Council asserting that abandonment of the WUTAM would benefit foreign corporations at the expense of U.S. firms. The American firms proposed that dividends from foreign subsidiaries not be taxed [Tanzer, 1985].

The threat of losing foreign investment was effective. In 1984, Florida and Oregon abandoned the WUTAM. Oregon adopted a water's edge method for foreign MNCs and required that a portion of the foreign dividend income received by U.S. MNCs be included in income. Within 18 months after Oregon dropped the WUTAM, eight Japanese firms located manufacturing or distribution facilities in Portland [Rooks, *Oregonian*, September 6, 1985, p. 83].

In the 1984 case of *Polaroid Corp.* [393 Mass. 490], the Massachusetts Supreme Judicial Court ruled that the Commissioner of Revenue lacked statutory authority to use the WUTAM. This decision prevented Massachusetts from assessing a state income tax based upon worldwide unitary apportionment.

To pressure states to adopt a water's edge approach, the British House of Commons approved a measure in 1985 [1985 U.K. Finance Bill, Section 54] to eliminate the tax credit of American companies for dividends paid to them by U.K. subsidiaries. The measure was to be effective as of April 1, 1985 and would have applied to companies that had 7½% or more of their property, payroll or sales in a WUTAM state, were subject to state income tax in a WUTAM state, and whose principal place of business was in a WUTAM state.

In response to this measure, President Reagan announced his support of federal legislation to prohibit the WUTAM. This announcement prompted Britain to agree to defer enactment of penalties against firms operating in both the U.K. and the WUTAM states if the federal legislation was introduced before the end of 1985 and was enacted before the end of 1986 [HM Government Statement]. Senator Baucus (D-Mont.) then proposed a retaliatory bill which would double the U.S. withholding tax on dividends paid to U.K. firms [Schmedel, Nov. 13,

1985, p. 1]. The British Government stated that it would not implement penalties against U.S. corporations in unitary states before December 31, 1988, unless it gave notice to the contrary [Parliamentary Proceedings, December 18, 1986].

Canada, Germany, Belgium, Italy, Switzerland, Japan and the Netherlands also threatened to retaliate unless the unitary method was restricted to the U.S.

Increased international economic pressure prompted the U.S. Treasury to release draft legislation opposing the WUTAM in mid-1985. The proposed law endorsed the water's edge method and increased taxpayer disclosure. President Reagan supported this legislation and authorized the Treasury Secretary to amend double taxation agreements. In addition, the President instructed the Attorney General to support the water's edge method in controversies and cases dealing with the WUTAM [Statement by the President, November 8, 1985]. The states, the National Governors Association and the National Conference of State Legislatures actively opposed this proposed legislation.

The Treasury's bill was introduced in the House of Representatives on December 18, 1985, as The Unitary Tax Bill of 1985 [House Bill 3980] and in the Senate as The Unitary Tax Repealer Act [Senate Bill 1974]. The proposed legislation excluded most foreign corporations and domestic 80/20 corporations from state taxation. However, foreign corporations which pay little or no foreign tax and have substantial dealings with U.S. corporations would be subject to the WUTAM. Also, the proposed law required that states tax only a portion of the dividends that U.S. companies receive from foreign corporations.

In addition, the proposed legislation required large and multinational corporations to file an annual information return with the Internal Revenue Service (IRS) that would detail their tax liability in each state. This domestic disclosure "spreadsheet" would be shared with the individual states and multi-state audit agencies to provide assurance that corporations properly apportioned their income among the states. This proposed legislation was not acted upon prior to the end of the 99th Congress and, therefore, died in committee.

In 1985, Colorado and Indiana abandoned the WUTAM. Foreign firms responded to the legislative retreat to the water's edge method by increasing their investment in Indiana. Colorado, however, received no additional foreign investment. California, Alaska and Idaho considered, but did not approve,

the repeal of the WUTAM in 1985.

In March 1986, Utah revoked the WUTAM and instituted the water's edge method. In April 1986, Idaho enacted repealing legislation to be effective on January 1, 1988. New Hampshire abolished the WUTAM effective June 30, 1986, even though implementation rules were to be decided in December 1986.

In September 1986, California enacted Senate Bill 85 (effective January 1, 1988) which allows MNCs to elect to use the water's edge method and to partially exclude foreign source dividends. However, this election requires the payment of a fee based on the MNC's sales, tangible property and payroll in the state. In response to the California bill, the Reagan administration withdrew its support for those portions of the proposed federal legislation which would have prohibited the use of the WUTAM. The President continued to support those provisions which would require MNCs to file a domestic spreadsheet with the IRS and provide additional IRS audit support.

On April 21, 1987, North Dakota enacted legislation which would allow corporations to elect the water's edge method for taxable years beginning after December 31, 1988. The election is to be binding for ten consecutive years and requires that a domestic disclosure spreadsheet be filed. In addition, the election prevents the corporation from reducing taxable income by any Federal income tax paid.

A new application of the WUTAM was conceived by Florida in 1987. Effective July 1, 1987, Florida enacted a far-reaching sales and use tax which was imposed on services used or consumed in the state. The tax was computed by applying a three-factor (property, payroll and sales) apportionment formula on a worldwide basis to the cost of a service. It applied to "affiliated" groups, which were similar in nature to unitary groups, on a worldwide basis. The service sector of the economy, led by broadcasters, publishers and advertisers, strongly protested the tax. They launched a strong anti-tax advertising campaign and cancelled service-related programs and conventions. The protest was effective. The Florida Legislature repealed the tax as of January 1, 1988, six months after it became effective.

Despite the widespread voluntary adoption of the water's edge approach by the states, foreign governments and MNCs continued to press for federal legislation. On July 15, 1987, Representative Frenzel introduced the Domestic Corporation Taxation Equality Act of 1987 [House Bill 2940] in the House of

Representatives. The proposed legislation would prohibit states from using the worldwide unitary method unless the taxpayer would so elect. In addition, the legislation would not allow states to tax more than an "equitable portion" of any dividend received by a corporation. Identical legislation was introduced into the Senate by Senators Roth and Fowler on November 4, 1987, as Senate Bill 1843. The legislation has been referred to the House Ways and Means Committee and the Senate Finance Committee.

Montana, one of only two remaining WUTAM states, retreated to the water's edge on October 1, 1987, effective for taxable years beginning on or after January 1, 1988.

As of February 1988, Alaska was the only state not to enact legislation prohibiting the mandatory use of the WUTAM.

The ramifications of economic and political pressure were significant. Increased involvement in the issue by the leaders of foreign powers affected political alliances. Potential loss of state revenue threatened the states' economies. Economic sanctions disturbed harmony among the states. Political pressure and potential federal legislation altered the relationship between the federal and state governments. These pressures forced the states to reexamine their commitment to the WUTAM. Within three years, eleven states retreated to the water's edge method. Thus, the expansion of the unitary method was halted.

Table 3 summarizes the economic challenges to the unitary method and the states' responses to those challenges for the period 1983 to 1988.

CONCLUSION

This paper examined the conflict between taxpayers and tax jurisdictions and the effect of judicial interpretations, political pressures and economic behavior on tax policy by tracing the historical development of the unitary method of taxation from 1842 to 1988 (Table 4). Within a span of 146 years, the unitary method evolved from a method of assessing local property taxes to a means of apportioning the worldwide income of multinational corporate groups. The expansion of the method resulted from the tax jurisdictions' need for additional sources of revenue and from the geographic expansion and internationalization of business entities. Although taxpayers challenged this expansion numerous times in the courts, the judicial system supported the liberal interpretation of the method. Taxpayers used political pressure and economic sanctions to successfully force the states to abolish the WUTAM and

Table 4
Historical Development of the Unitary Method of Taxation
1842 to 1988

Extent of Apportionment	Period	W	O
I N T E R S T I T E	1842-1959	W A T E R , S I A E	W O R L D W I D E
		Tax Jurisdictions Seek to Maximize Tax Revenues By Expanding the Application of Unitary Apportionment	Taxpayers Strive to Minimize Tax Liabilities by Challenging Unitary Apportionment Through the Judicial System
	1959-1983	Tax Jurisdictions Maintain Application of Unitary Apportionment	Taxpayers Challenge Unitary Apportionment Through the Judicial & Political System
	1983-1988	Tax Jurisdictions Retreat to Water's Edge	Taxpayers Challenge Unitary Apportionment Through the Political and Economic System

to retreat to a water's edge method. Although it appears that the taxpayers' threats of economic sanctions had the most significant effect on restricting the use of the WUTAM, it is difficult to clearly separate the impact of economic and political actions, since the political pressure appears to be economically motivated.

The unitary method adapted to a changing environment by expanding and contracting in scope. As tax jurisdictions continue to deal with the issue of identifying the tax entity and the property and income subject to tax, they will continue to be faced with tax measurement problems. This paper provides future researchers with both a foundation and a methodology for analyzing tax policy development. This is needed for an academic understanding of policy development and for a historical appreciation of the role of taxpayers in the evolution of tax policy.

REFERENCES

- Adams Express Company, American Express Company, and the United States Express Company.* 165 US 194, 166 US 185.
- Bass, Ratcliff and Bretton Limited.* 266 US 271.
- Bleiberg, Robert M. "Killing the Goose?" *Barron's*. December 5, 1983.
- _____. "Corporate Tax Revolt." *Barron's*. August 20, 1984.
- Brown, Robert D., Leegstra, Ruurd G. and Looram, Lloyd J. "Unitary Tax: At the Crossroads? — Part II." *The CPA Journal*. July, 1985.
- Brown-Forman Distillers Corp.* 359 US 28.
- Butler Bros.* 111 P.2d 334, 1941.
- Butler Bros.* 315 US 501.
- Container Corporation of America, The.* 103 S.Ct. 2933.
- Curry, Bill. "Oregon in Middle of Nationwide Unitary Tax Debate." *The Sunday Oregonian*. Portland, Oregon, April 29, 1984.
- Delaware Railroad Tax Cases.* 85 US 206.
- Department of the Treasury. "The Final Report of the Worldwide Unitary Taxation Working Group." Office of the Secretary. August, 1984.
- ET & WNC Transportation.* 359 US 28.
- Edison California Stores, Inc.* 183 P.2d 16.
- Erie Railway Company.* 88 US 492.
- General Laws, Act 8488, Vol. 2, p. 3858. Stats. 1929, pp. 19, 24. Amended by Stats. 1931, p. 2226, Stats. 1935, p. 965.
- HM Government Statement. 1985.
- Hans Rees' Sons, Inc.* 283 US 123.
- Hellerstein, Jerome R. *State Taxation: Corporate Income & Franchise Taxes.* Warren, Gorham & Lamont. Boston, 1983.
- House Committee on the Judiciary. "Report of the Special Subcommittee on State Taxation of Interstate Commerce." House of Representatives Report No. 1480. (Willis Committee Report.) 88th Congress, 2nd Session. 1964.
- Keesling, Frank M. "The Combined Report & Uniformity in Allocation Practices." *Multi-State Tax Commission 7th Annual Report, Appendix G.* 1975.
- Kiesel, Diane. "Tax Wars." *American Bar Association Journal*. June 1984.

- Missouri River, F.S. & G.R. Co.* 136 Kansas Reports 210.
Mobil Oil Corp. 445 US 425.
Northwestern Portland Cement Co. 358 US 450.
Parliamentary Proceedings. December 18, 1986.
Polaroid Corp. 393 Mass. 490.
Rooks, Judy. "Bradley Says California May Repeal Unitary Tax." *Oregonian.*
Portland, Oregon, September 6, 1985.
Runke, James and Fender, Alan E. *State Taxation of Railroads and Tax Relief Programs.* The Council of State Governments. Kentucky, 1977.
Schmedel, Scott R. "Re-retaliation." *Wall Street Journal.* November 13, 1985.
Schuh, Scott D. "Oregon Votes to Abandon Unitary Tax In Victory for MNCs."
Wall Street Journal. August 1, 1984.
Smith, Andrew M. Unitary Tax Campaign Administrator who was interviewed
by the authors in London in 1986.
State Railroad Tax Cases. 92 US 575.
Statement by the President. November 8, 1985.
Tanzer, Andrew. "Deukmejian's Dilemma." *Forbes,* January 28, 1985, pp.
62-63.
Underwood Typewriter Company. 254 US 112.
U.K. Finance Bill, Section 54. 1985.

John T. S. Melzer

THE RISE IN THE PRICE OF WHEAT FOR THE "BAKERY IN THE STREET OF THE FISHMARKET" IN THE CITY OF LIMA 1812-1821

Abstract: This article analyzes the information found in the newly discovered account book in the Lima National Archives on bulk wheat prices paid by a centrally located bakery for the nine year period 1812 to June 1821. The conclusion is that the price of wheat per bushel paid by this Lima bakery rose more than eleven hundred percent between 1812 and 1821 and that the profits shown after the bakery paid these increased wheat costs would indicate a rise in the price of bread to cover the increased cost of the wheat. Ships carrying wheat noted in the account book are listed.

INTRODUCTION

If one looks in the Lima archives among the *legajos* (bundles of documents) for the *Consulado de Comercio de Lima*, he can find the account book for a bakery in the Street of the Fishmarket in Lima. The searcher may consider it of real importance on two counts. First, because almost nothing in particular is known about the food prices in Lima just before the onset of Peruvian Independence in 1821. Second, the bakery accounts should reflect direct price changes because of the location of the business. The Street of the Fishmarket ran alongside the Viceroy's Palace (the Palace of Government now) and was, and is, one of the principal streets at the administrative heart of the Old City. It was only one block long, but it began on the thoroughfare which crossed the Rimac River just behind the Palace on the only bridge over the river and ran one block to open onto the city's main square. This square was directly in front of the Palace and was the most important *plaza* in the city. It still is.¹

¹Map 8, "Plano de la ciudad de Lima en 1821," Doering, 1983. See also Gamio, 1971, *passim*. Viceroy Pezuela (1816-1821) calls this main *plaza*, the "Plaza Maior." Pezuela, 1947, p. 763.

The account book for this bakery shows that the price of a bushel of wheat bought by the business had fluctuated from 2 to 5 *pesos* from 1812 to 1817 (except for a spike in 1814 of over 10 *pesos*), and then that the price had risen to 25 *pesos* a bushel for one large shipment in 1821, three months before General San Martín took Lima. In addition to this rare look at wheat prices, the account book also allows the listing of some of the ships in the carrying trade from Chile to Perú for these years.

SEÑOR PARGA GETS OUT

Much of the importance of the account book lies in the people and events it reflected. And one of the most important men in the book finds himself in Lima in early June of 1821 controlled by the events unfolding there. The man was Señor Parga, one of the two partners in the bakery.

What had happened was that from January to July of 1821, as the last pages of the account book were posted, the situation for Lima as a city dependent on an imported food supply and under siege had steadily worsened. In December of 1820 the Lima city government had wanted the Viceroy to seek peace with the insurgent army to the north of the city. In late January, the Viceroy was overthrown by a *golpe de estado* (*coup d'état*) led by his generals. The general who then declared himself Viceroy, found the Lima city government unwilling or unable to aid him with money [Gamio, 1971, pp. 16, 22, 23], and by April he was under orders from Spain to hold peace talks with San Martín [Moore, 1966, p. 235; Vargas Ugarte, 1977, 6:158]. On the other hand, the Consulado, the royal agency controlling trade in the Viceroyalty [Smith, 1948, *passim*], was willing to raise the money and wanted to do it but was unable, even through confiscation, to meet the need [Libro 1239, January 10-April 4, 1821].

The desperate nature of the situation in late June in the final days before the city fell can be felt in part when reading the last entry in the account book when whoever was writing, probably for Señor Parga, added an uncharacteristic personal note to the listing. In fact, the person posting the account may well have been Parga himself bringing the accounts up to date when he came by the bakery. In any case, if this is Señor Parga, he says that in the twenty days before he came to the capital, no dough has been mixed, that nothing has happened in the bakery even though dough is to be started as before (and that he's getting out of the bread business, you can read in the exasperated tone and the rest of the page). By the end of June,

the 28th, Parga has had Señor Ugarria, his partner in the bakery and in whose hand evidently most of the account book was posted, buy him out. [P foxas, folios 11, 11v]. Eight days later, on June 6th, the new Viceroy and his army march out of Lima, surrendering the city as undefendable; General San Martín's army then marches in unopposed to keep the peace [Lynch, 1973, p. 178].

THE IMPORTANCE OF THE ACCOUNT BOOK

Here the account book ends, eight days before General San Martín took Lima.

It was in this scene, within this picture of a city relying on imported food and, particularly in the last years, under continual attack, that most of the account book was posted; that the account book shows that the frigate *Maintinomo* took the risk of continued voyages to Chile and to Peruvian ports to pick up wheat, that Señor Parga bought the bakery's wheat in the various depots around Callao (the port for Lima) and that Señor Ugarria turned the wheat into bread with the help of at least one slave in his bakery with its small chapel across the street from the Viceroy's palace less than 100 yards from the main *plaza* of the city.

But beyond the interest the account book would have as an artifact surviving from the time of Peruvian independence, its greatest importance lies in its unique contribution to what is known about wheat prices in Lima. It demonstrates what was actually happening to these prices in the city in a way that the relatively small amount of general information we have on the Lima wheat supply before independence cannot do. It also should be noted that in the writer's handling of thousands of documents amongst the hundreds of thousands in the Lima archives, no other account book like this for wheat came to light. More importantly, there is no mention of such a document for Lima in the major work done on the period for Lima [Smith, 1947; Lynch, 1973; Moore, 1966; Gamio, 1971; Fisher, 1970; Denigri Luna, 1971; Vargas Ugarte, 1958, 1971; Lohman Villena, 1940; Bonilla, 1981].

Nor is an account book like this listed in the catalogues of documents or topical card files kept in various Lima archives in which the writer has worked. This is not to say that there are no other such account books, given the thousands of documents and the tremendous problems besetting the Lima archives nowadays (you cannot eat documents; and Lima today, as in the independence period, needs food and jobs) ["Se de-

Illustration 1

P ◇ 12 leaves

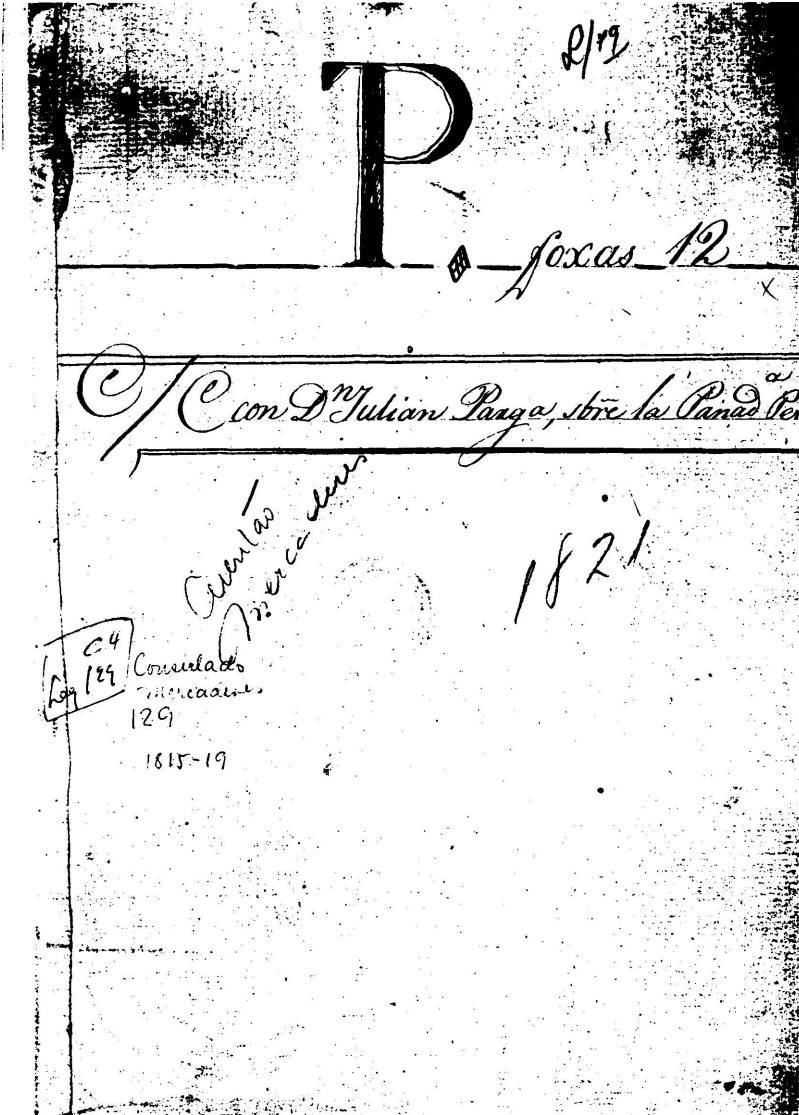
**Current Account* of Don Julian Parga with the Fishmarket
Bakery**

* C/C:
*Cuenta
Corriente.*

**Consulado
Merchants
129**

**[Lead pencil,
archival
notation]**

1815-19



The outside cover page (the front of the *carátula* or cover) for the account book. The paper is the same as for the inside pages. The account book is listed under C4, Real Tribunal del Consulado in Legajo 129 in the Archivo General de la Nación, Lima, Perú.

terioran," September 18, 1987]² But it is to say that the account book for the "Bakery in the Street of the Fishmarket" appears to be the only detailed record of bulk wheat purchases by an individual bakery that we have for Lima during these years.

THE DOCUMENT

The account book is a very interesting, concise manuscript book which, for the most part, is not difficult to read, especially in comparison to sixteenth century documents. It has only a paper cover instead of leather or cloth and the pages are sewn, not glued or left loose. In twenty-three pages of bold or fine handwriting, it records the business done by the "Bakery in the Street of the Fishmarket" for the nine-year period 1812 to July, 1821.³ It deals primarily with bulk purchases for these years, although flour, rice, a half bushel of beans and 13 yards of silk cloth are noted. It also records the profits and losses on the business, rent payments and some personal expenses and mentions slaves. And the document shows that for the "Bakery in the Street of the Fishmarket," the price for wheat rose by more than eleven hundred percent from 1816 to 1821 (see Table 3).

²The Peruvian national archives are crowded into a section of the ground and basement floors of the Peruvian Supreme Court building (*Palacio de Justicia*) next to the holding jail (*carceleta*) for criminal hearings which houses terrorists as well as other criminals waiting to appear before a magistrate.

There is a good reading room and an excellent staff of dedicated archival professionals who are managing the tremendous documentary collection they have there in Lima.

However, the documents, which Peruvians hold to be "the conscience of the country," suffer from a lack of electricity and from the humidity, especially in the large basement storage area. The damage to the documents has now reached an emergency stage, Peruvians say, and they want a modern archive area which will give them enough space, light and humidity control to preserve and use the documents of this magnificent collection.

³The bakery was called the "Panaderia Pescaderia," one time, the "Panaderia a la Pescaderia," and the "Panaderia de la Calle de la Pescaderia," two times respectively. The latter, the "Bakery in [of] the Street of the Fishmarket" is used in the text because of the rhythm of the name, although "Panaderia Pescaderia," "Panaderia a la Pescaderia" and "Fishmarket Bakery" have also been used in the text. This document has the title "P foxas 12 Conla casa Panaderia a la Pescaderia, que corre al cargo de don Julian Parga, a partir de utilidades, y perdidas por mitad, que principio en 20 de Dizre de 18-14#1816#1817#1818#del mes de Diciembre 1819#1820#1821# P," folios 2, 6, 9v cover and title folios. Folio means manuscript page; v is for *Vuelta* (over), *vuelto* in the case of *folio*, that is, the backside of the page.

That is, the price of a *fanega* (bushel) of wheat rose from a low in December 1815-January 1816 of two pesos, as seen in the entries for these months for this business, to twenty-five pesos per *fanega* paid between February and April of 1821.⁴ This is a price-rise of eleven hundred and fifty percent (See Table 3 and Exhibit 1, Figure 1).

THE BAKERY

The records show that the bakery was a stable business organized as a two-man partnership. It was centrally located in Lima right across the street from the Viceroy's palace on the north side and, at least for a while, it baked special bread for Viceroy Pezuela⁵ and for his wife, the Excelentissima Señora Doña Angela Ceballos ["P foxas," *folio* 11; Vargas Ugarte, 1958, p. 125].

In fact, there are a number of interesting points included among the listings for thousands of bushels of wheat and the small amounts of other commodities listed. For instance, the document notes that in 1821, 106 pesos were paid for "106 masses celebrated in the *Oratorio* of the *Panaderia* at the request of Dⁿ Sebⁿ Ugarría [the resident partner] for an equal number of holidays in accordance with the calendar from the 1st of May 1821 until the 28th of June 1821 ["P foxas," 1821, *folio* 11v].

There is also the notation in 1818 of 110 pesos for "alms of bread given to the Reverend Padres Garcia, Ramires and la Carriolla, now dead . . . ," ["P foxas," 1821, *folio* 9v] and the notation in 1821 of "½ *real* in alms given daily to Padre Garcia from the 20th of December of 1820 to the 28th of June, 1821" ["P foxas," *folio* 11v].

⁴"P foxas," 1821, *folios* 5, 5v 11. The entry for 1821 is "... 730 fanegas de trigo de Chile venidos en la Fragata *Maintinomo* en Febrero de 1821 a 25 p^s fanega." There is also a notation on the same page in which 2,684 pesos were paid in duties to the *Aduana* (Customs Service) on wheat on March 1 as well as 840 pesos (at one peso per *fanega*) to the Consulado on March 15, 1821. "P foxas," 1821, *folio* 11. The peso in these accounts is the peso of eight reales which was the uninflated peso and was termed the *peso duro* or *fuerte*; in English this eight real peso was the piece of eight. Burzio, 1949, passim. For early Spanish colonial accounting practices, see Mills, 1986, Mills, 1987 and Lohman Villena, 1961.

⁵Though this could well be for Viceroy Pezuela while he was viceroy, the notation appears to have been made after Viceroy Pezuela was deposed by General La Serna on January 29, 1821. The entry is "Por pan que hizo de mi oruden pa el Sor Pezuela [1821]." "P foxas," 1821, *folio* 11. For the general course of events as narrated in the excellent work of two Peruvian historians, see Basadre, 1949 and Vargas Ugarte, 1958; Vargas Ugarte, 1971.

Table 3

Bulk Wheat Bought by the "Bakery in the Street of the Fishmarket" in Lima -- Ships, Export Origin, Seller, Price per Bushel and Taxes: 1812 - June, 1824								
DATE	SHIP	PLACE	SELLER	BUSHEL BOUGHT	¢ PESOS	WHOLESALE PRICE	TAXES CONSULADO CUSTOMS	DOC PG.
1812								
November 13	<u>Brigantine San Miguel</u>		Manuel de la Torre	1,000	3.5 ^a	3,500		1
1813								
January 8	<u>Frigate MainInomo</u> (Voyage #9)	Talcahuano	Manuel de la Torre	1,448	3.375 ^b (27 rls)	4,887		1
January 8	<u>MainInomo</u>	Talcahuano	Zaldondo	164	3.375	553 ^c		1
January 25	<u>MainInomo</u>		Jose Ignacios Pulaclos	3,000	3.25 (26 rls)	9,750		1
May 10	<u>MainInomo</u> (Voyage #10)		Manuel de la Torre	610	3.375 (27 rls)	2,058		1
June 1	<u>Frigate Trinidad</u>	Penco	Zaldondo	1,000	3.75 (30 rls)	3,750		1 ^d
August 9	<u>Frigate Delores</u> (April 1813)		Andres Sanchez Quiros	1,000	5.0	5,000		1 ^d
August 21			Juan	152	5.0	760		1 ^d
1814								
July 1	<u>MainInomo</u> (July 1, 1814)	Talcahuano	Manuel Anzoategui	550	10.50	5,775		2
September			Manuel Anzoategui	500	7.0	3,500		2
October 1			Manuel Anzoategui	500	6.0	3,000		2
	<u>MainInomo</u> (Voyage #12)	Talcahuano	Manuel de la Torre	454	3.5	1,589		3
	<u>MainInomo</u>	Talcahuano	Conde de San Ferrer	66	3.5	231		3
1815								
January 7	<u>Trinidad</u> (December 3, 1814)	Talcahuano	Manuel Anzoategui	763	3.0	2,289		3
February 11	<u>Trinidad</u> (November 21, 1814)	Talcahuano	Jose Ramon Zaldondo	666	2.75 (22 rls)	1,831		3
August 13	<u>MainInomo</u> (Voyage #14)	Penco	Jose Ramon Zaldondo	500 ^e	2.	1,406		4 ^d
October 10	<u>MainInomo</u> (July, 1815)	Valparaiso	Jose Ramon Zaldondo	281	2.5 (20 rls)	702		5
October 30	<u>MainInomo</u> (October voyage)	Valparaiso		500	2.5 (20 rls)	1,250		5
November 13	<u>MainInomo</u> (Voyage #14)	Talcahuano	Jose Ramon Zaldondo	1,266	2.19 (17.5 rls)	2,769		5
December 4			Casteneda	1,000 on Account	2.0	1,000		5
Total				5,420 Fanegas		55,600 Pesos		

Table 3
(Continued)

DATE	SHIP	PLACE	SELLER	BUSHELS BOUGHT	# PESOS	WHOLESALE PRICE	TAXES CONSULADO	CUSTOMS	DOC PG.
1816									
January 3	Mainтинomo (Voyage #15)		Jose Ramon Zaldoundo	1,715	2.0	3,430			5 ^d
December 20				1,192	3,125 (25 rls)	3,725			6,7 ^d
1817									
January 9	Brigantine Ciceron	Penco		500	3,875 (31 rls)	1,937			7 ^d
	Mainтинomo (December 29, 1816)	Talcahuano		1,000	4.0	4,000			7 ^d
May 28	Brigantine Europa	Pacasmayo	Lorenzo Domingo	200	12.0	2,400			8
June 27			Ignacio Aizaga	197	12.5	2,462			8
July 2				200	12.0	700 on Account			8
July 23	Mainтинomo (Voyage #19)	Talcahuano	Zaldoundo	58 ^g	7.0	700 /sic/			8
August 4	Mainтинomo (July, 1817)	Talcahuano		1,000	12.25	12,250			8
November 10	Mainтинomo (July, 1817)			202	12.5	2,525			8 ^d
1818									
October			Juan Abreu	500 ^h	9.25	4,625	180 ⁱ	500 ^j	9
			Manuel Anzoategui	121 ^k	11.25 (11 pesos 1 real)	346 on Account			9
November 16			Count of Monte Blanco	500 ^l	9.25	4,625	180	500	9
December 12	Aguillar (October, 1818)		Manuel Anzoategui	284	11.0	3,124			
1819									
1820									
January			Al Rey	100	9.5	950			10 ^v ^d
1821									
Between February & April	Mainтинomo (February 1821)	"Trigo de Chile		730	25.0	18,250			11
March 3								2,684	11
March 12							810		11
Subtotal				8,499		65,750			
Total				23,919		121,350			

^aPesos are carried to three places. However, wherever possible, they are held to one or two places.

^bRis is short for reales.

^cTo simplify the table, reales are not included in the final figure.

^dv means vuelto, the backside of the page. ^e"Trigo viejo." ^f"Trigo Viejo." ^g"...algo humedo."

^h"...le compraron al Rey." ⁱ"Por un peso cada F al Rey...." F means bushel (fanega).

^jUn peso en F al Rey en la Aduana." ^k"...libre de todo dros." ^l"...de la partida comprada al Rey a 9 1/2

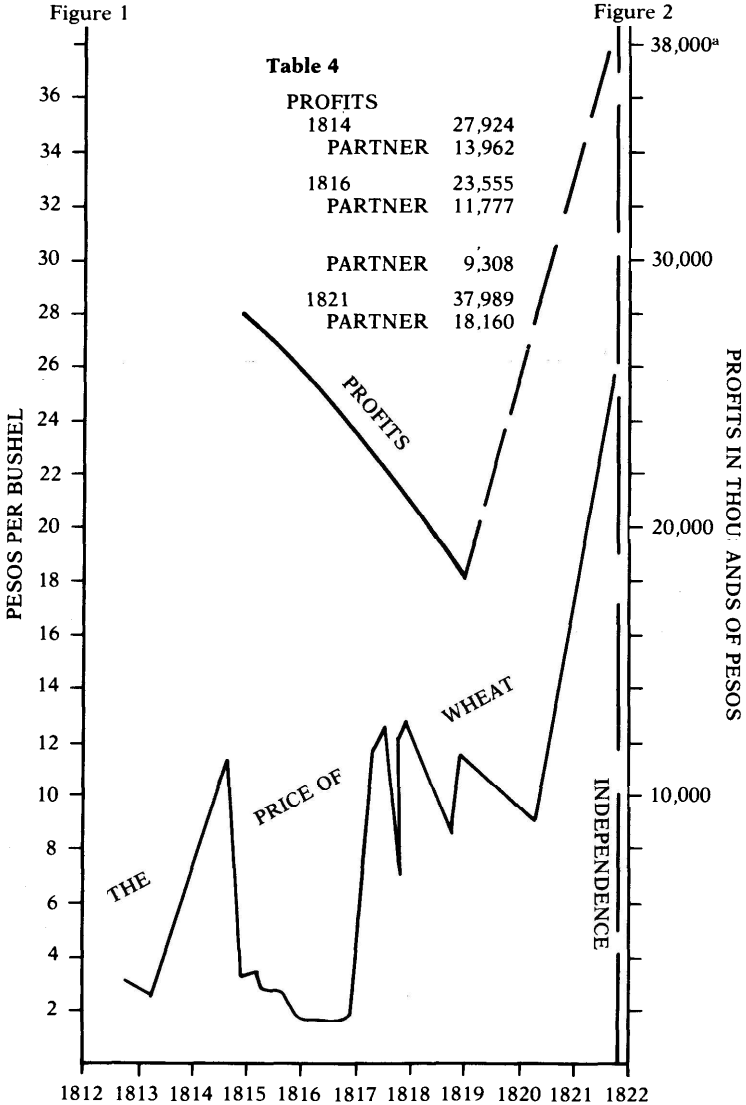
pe^s." ^m"...a 11 pe^s libre de un peso en F que debere pagar el comprador 1mp."

Source:

"Cuenta corriente con la casa Panderla de la Pescaderia, que corre al cargo de don Julian Parga, a partir de utilidades, y perdidas por mitad, que principio en 20 de de Dizre de 1814#1816# del mes de Diciembre 1819#1820#1821#F." C4, Real Tribunal del Consulado, Legajo 129, Archivo General de la Nacion, Lima, Peru.

Exhibit 1

Profits and the Wholesale Price of Wheat Bought by the Bakery in the Street of the Fishmarket



^aSee Note 11.

Source: "Cuenta corriente Conla casa Panaderia de la Pescaderia, que corre al cargo de don Julian Parga, a partir de utilidades, y perdidas por mitad, que principio en 20 de Dizre de 1814#1816# del mes de Diciembre 1918#1820#1821#P," C4, Real Tribunal del Consulado, Legajo 129, Archivo General de la Nación, Lima, Perú.

There are some slaves which are mentioned as working in the bakery although only one is listed specifically. In 1812 and in 1814, Sr. Ugarria says he is crediting in the biennial partnership division of costs and profits with the amount he has in utensils and slaves with which he runs the bakery ["P foxas," *folios* 2, 6]. He also has one slave (Querejasu) sent to a *hacienda* near Ica before finalizing a sale. The slave is going to Ica and the negotiations for the money have yet to be completed; it might be that the trip is as much the slave's idea as Ugarria's ["P foxas," *folio* 6v].

Women are the subject of two particular entries and one two-part listing. The first is for a payment of 300 *pesos* as a wage payment for a *criada* (cleaning woman or servant) ["P foxas," *folio* 11]. The second is for 23 *pesos* received on a 78 *peso* bill which included 55 *pesos* to the wife (woman) of Carpio for earrings ["P foxas," *folio* 10v]. The third of these notations is for the *dote* (endowment money) paid to the Convent of Santa Rosa de Lima, the patron saint of Lima. There are two payments of 3,196 and 3,195 *pesos* paid in July of 1820 and 1821 for the daughter of Uria (short for Ugarria?) ["P foxas," *folios* 11, 11v].

There is an annual rent for the bakery building of 1,000 *pesos* that was paid as a working expense of the partnership. The rent was usually paid twice a year in two 500 *peso* payments in December and July, although in 1813, 1819, 1820 and 1821, a single 1,000 *peso* payment was shown. The payments recorded in the account book are:

19 December	1813	1,000 <i>pesos</i>	<i>folio</i> 1v
19 June	1814	500	2
20 June	1815	500	4v
19 December	1815	500	5
20 June	1816	500	5v
20 December	1816	500	5v
20 June	1817	500	8
20 December	1817	500	8v
19 December	1819	1,000	10v
20 December	1820	1,000	11
20 June	1821	1,000	<i>folio</i> 11v
		<hr/>	
		7,500 <i>pesos</i>	

There are personal expenses listed for both partners for *prendas* which are settled up in the biennial statements. The *prendas* are probably pledges or IOU's which have been al-

Illustration 2

**Current Account of the Bakery at the
Fishmarket house of business with Don
Julian Parga, splitting profits and losses equally*
on 20 December 1814#1816#1817#1818#
[and] for the month of December 1819#1820#1821#**

*by half.

P

**Stamp:
Archivo
National.**

*Cuenta corriente con la Casa Panadería de la
Peruadería, que corre al cargo de don
Julian Parga, à partir de entrida de
y perdidas, por mitad, que principia
en 20 de Octubre 1814, 1816, 1817,
1818, del mes de Diciembre 1819, 1820,
* 1821 **

P.

The inside title page which is unnumbered and separate from the account pages. The entries in the account book begin abruptly at the top of the next page (not on the back of this folio). The page numbers also begin with the first listing folio. "P foxas," C4, Real Tribunal del Consulado, Legajo 129, Archivo General de la Nación, Lima, Perú.

lowed to float against the bakery's funds until the biennial settlement was posted ["P foxas," *folios* 2v, 4, 9v, 10].

THE BAKERY PARTNERSHIP

The account book is for a partnership. Señor Parga's function evidently was to put up the money and buy the wheat for the bakery while Señor Ugarria ran the bakery and marketed the product. Parga would put up the money for the business in payments of from 300 to 3,000 *pesos* at a time and Ugarria used this money to pay for the wheat for which Parga had negotiated and for the other expenses of the bakery; the money personally used by Ugarria was credited to his half of the profits in the biennial statement. Parga also came back to the bakery when he needed money and drew out part of what he had paid in, usually in small amounts ["P foxas," *passim*].

In fact, in December of 1816, Señor Parga left 8,000 *pesos* with Señor Ugarria, but this time at six percent interest. Then during 1817, this "deposit" is followed by three advances to Parga of a thousand *pesos* each with new notes for the balance at six percent until all but 5,000 *pesos* has gone back to Parga ["P foxas," *folio* 7].

However, the two men seem to have had an easy relationship because it seems clear that Parga, year in and year out, was the source of all of the outside money for capitalizing the business, usually in 1,000 *peso* payments. Ugarria spent the money, and there is only one instance like that with the 8,000 *peso* lump sum ["P foxas," *passim*].

COMMODITIES OTHER THAN WHEAT BOUGHT BY THE BAKERY

Although the bakery would have had to have used flour for bread, the commodity purchases noted are almost entirely for wheat. There are notations for 18 and then for 320 bushels of flour which are grouped separately as leftovers from the inventory for the statement of 1812 and which are listed with the entries for 1812-1814 ["P foxas," *folio* 1v]. Then there are 642 bushels of flour listed in the inventory of 1816 in the biennial statement for this year ["P foxas," *folios* 6, 7v]. In December of 1818, there are 7 hundredweights (*quintales*) of "flour from Valparaiso" ["P foxas," *folio* 9v] and 772 bushels of flour listed in the inventory for that year. And that is all: the only flour listed is for December 1812 to December 1818. When added up, it comes to 1,753 bushels of flour and 7 hundredweights or *quintales* of flour.

There is also a very limited quantity of rice listed in 1814. There are 30 sacks (*costales*) of rice which are listed as costing 337 *pesos* or more than 11.2 *pesos* a sack in the leftover inventory entries on December 22, 1814 ["P foxas," *folio* 2v].

There is another commodity noted. It is a half bushel of beans, beans which may be of more importance in terms of food supply prices for this time in Lima than a half bushel of beans would seem to be.

The entry comes between listings for December 1820 and the last entry of June 28, 1821, on the next to the last page of the book at the bottom of the page ["P foxas," *folio* 11v]. The entry is undated but probably notes a purchase sometime in the first months of 1821 although other notations in this hand are from as far back as 1819 ["P foxas," *folios* 11, 11v, 12]. However, there is an extreme scarcity of food indicated in the minutes for the Lima city government meetings for January, 1821, and the city government is also called on several times in January to do something to bring in foodstocks said to be held in the Chincha district ["Libro de Cabildos 45," 1971, p. 151]. This latter point, the foodstuffs at Chincha, together with the food scarcity in Lima, both in January of 1821, suggest a January 1821 date for the beans because the half bushel was brought from Chincha.

Chincha is about 80 miles south on the coast and about 20 miles from where General San Martín first landed in September of 1820. The area was still controlled by royalist forces [Pezuela, 1947, pp. 755-841, *passim*; Libro de Cabildos 45, 1971, pp. 151-158] and the beans were bought from Leandor Castilla at a 25 *peso* price per bushel for 12½ *pesos* for the half bushel ["P foxas," *folio* 11v]. This would appear to have been a high price for beans.

There is one other commodity listed. This is silk cloth from Cádiz from the *Minerva* which is not listed in the final settlement of 1821 ["P foxas," *folio* 11v, 12].

Thus, we have a relatively small number of commodities other than wheat listed: a half bushel of beans (probably second only to wheat in terms of its importance for food price information), 30 sacks of rice and 1,752 bushels of flour as well as 7 hundredweights of flour. And as one deals with units of flour, it becomes clear that the hundredweights give a better idea of the amounts of flour involved because in 1820, there was some argument over just what a bushel was in terms of weight. Then the Consulado seems to have settled the matter.

In September of 1820, the Consulado Tribunal wrote to the General Accounting Office of the Royal Customs Service that

Illustration 3

... they have earned in the two years for this company twenty-three thousand five hundred and fifty-five *pesos* two *reales* which with half for each partner and their associates, make eleven thousand seven hundred and seventy-seven *pesos* five *reales* (except for error or omission*) and it is advised that each of the interested parties [received] their division abovementioned, by which [receipt] and what has been done up to this date, this business is concluded.

* S.Y.U.O.
Salvo
Yerro U
Omisión.

Note

The sale remains pending of the *Zambo* Querejesu who was sent to Ica for sale to the Gentleman Dr. Don Antonio Bosa and it appears that the Hacienda owner Baldelomar will buy and later that when his value is received it will be divided in half. It was charged and the division was made.

The Gentleman don Julian Parga, his account* with don Sebastian Ugarria Iscredited*

*S/C
Su
Cuenta.
*Paid in

11,777 <i>pesos</i> 5 <i>reales</i> half of 23,555 <i>pesos</i> 2 <i>reales</i> that are the profits of the business of the Bakery in the years since 20 December of 1814, until the same day month and year of 1816 as is shown in detail in the balance done up on the said day	#11,777	
1,000 <i>pesos</i> turned over to me on the 30th of said December	#1,000	
4,000 <i>pesos</i> * , that is to say 400 <i>pesos</i> that remain to be paid by don Jose Noreiga for 200 <i>fanegas</i> * of wheat that I sold him from the Storehouse of Zaldondo on 19 December 1815.		* Ø : thousand
This arrangement isn't counted	0000	* F : S
4,000 <i>pesos</i> that he gave me at interest on 24 January of 1815 for the draft for the cited supply house	#4,000	fanegas bushels
457 <i>pesos</i> value of the yield for the 22 months 25 days from said day until 20 December of 1816	#457	
Said Gentleman owes	#17,234	
4,820 <i>pesos</i> that he has taken from the fund of the Company according to that shown by the cited balance	#4,820	* F : S
400 <i>pesos</i> [illegible] to be paid by Don José Noreiga for the value of 200 <i>fanegas</i> * of wheat that I sold him		fanega bushel

comparado en los dos años a esta Compañia Vinte y tres mil y
 cuatrocientos y cinco p.e. dos r.e., y por la mitad a cada uno
 de los Compañeros. Conesponden otros mil y ochocientos setenta y tres
 pesos cinco r.e. (S. S. 250) y se presume que cada uno de los
 socios en su parte, como queda concluido este Negocio, por lo
 que hasta esta fecha Lima y Puerto Rico 22 de Agosto 1816

Nota.
 Queda pendiente el Rambo Guaymas, que se Nom. a Jca para
 ir dentro al Sr. D. D. Antonio Roca, y parece Compañero el Sr.
 D. Baldo Maria, y luego que se recibiera su importe, se partira por
 mitad de cobro y se pasaria la p.

El Señor D. Julian Parga Jc. con D. Sebastian de Ugazina. Recebe
 \$ 777 p.e. 5 r.e. mitad a \$ 555 p.e. 2 r.e. que le Conespond
 a la mitad en la negociacion de la Pimada en los
 dos años q. han corrido desde 20 de Agosto de 1814
 hasta igual dia, mes, y año de 1816, como consta
 por menon en el Balance echo endho dia. \$ 777.
 300 p.e. q. me entregó en 30 de Agosto de 1816. \$ 300.
 400 p.e. de pago de p.e. que quedo a pagar por D. Torib. Noie
 que imp. a 20 de Agosto quele veni. en la Podega
 a la Puenda en 20 de Agosto de 1815. no conc. esta pava. 1000.
 1000 p.e. q. me dio a Interes en 20 de Agosto de 1815, para el
 giro de la Ciudad Casa de Abasto. 1000.
 100 p.e. q. me dio a Interes en 22 de Agosto de 1815, para el
 giro de la Ciudad desde 20 de Agosto hasta 20 de Agosto
 de 1816. 100.
Dho Señor Debe \$ 7234.
 1820 p.e. q. ha tomado del fondo de la Comp. 1820.
 Segun consta en el libro de Balance. 1820.
 100 p.e. q. me dio a Interes por D. Torib. Noie
 quele imp. a 20 de Agosto quele veni.

A typical page from the account book. It is the back of page, or folio, 6 (6v) which would be page 12 if both sides were numbered. The hand and quill remain about the same until the last four pages when both pen and hand change (folio 11). "P foxas," C4, Real Tribunal del Consulado, Legajo 129, Archivo General de la Nación, Lima, Perú.

there was a basic error in the statements that its accountant had turned over to the Consulado in regard to the flour brought in by foreign ships ["El Contador," 1820]. And since most of the goods in the coasting trade were carried by neutral ships because of the Chilean blockade and the risk of capture for Peruvian ships, most of the flour brought to Lima was carried in foreign ships [Pezuela, 1947, pp. 473, 505, 527, 803]. Hence, the error here is of importance for the Consulado and Customs Service even though the account book inexplicably lists no flour for these last years.

The error was that a bushel of flour was being credited at 135 pounds when it ought to have been an 80-pound unit. Therefore, the Consulado told the Customs Service that it should instill in its agents the idea of 80-pound bushels instead of 135 and then see to it that the collections were carried out on the 80-pound basis. If the collections were not made on an 80-pound bushel basis, there would not only be less collected per bushel at the 135-pound rate, but the principal amount collected on which the Consulado was turning over 25½ percent to the royal government would be reduced. The government as well as the Consulado, then, was losing some of its desperately needed tax base through the 135-pound error ["El Contador," 1820].

AMOUNT OF WHEAT BOUGHT BY THE BAKERY

From 1812 to 1821, the account book shows that the bakery bought at least 23,919 *fanegas* (bushels) of wheat, most of which came from Chile "by sea" (see Table 3).⁶ The years in which the largest amount of wheat was bought were 1813 (7,374 bushels), 1815 (4,976 bushels) and 1817 (3,357 bushels) (see Table 1). However, there is no notation of wheat bought for the use of the bakery in 1819 and only one for 1820. It is possible that the information for these two years and for 1821 is copied from another book and that wheat purchases were left out of these notes or that only flour was bought and not recorded, although flour and some rice had been listed before

⁶The Consulado estimated in an *Acta of a Junta de Comercio* which met in February of 1815 that Perú imported 180,000 bushels of Chilean wheat in an ordinary year (which would be 5,000 bushels a day). What the Consulado said was "... a la vista este Consulado ... observa que la introduccion de los Trigos es contrahida a los de Chile y que sobre ella calcula la comision, que en un ano comun se aproxima a ciento ochenta mil Fanegas [180,000 bushels] indicando su precio medio de primera venta en veinte reales Fanega [2.5 pesos per bushel]." "Consulta," 1817.

1819. But, certainly some other person posted these accounts after the last entry for November of 1820 because both the form for the notation and the handwriting change then, and the new hand continues the record with entries from 1819 and 1820 and through the last entry for June of 1821 ["P foxas," 1821, *folios* 10, 11, 11v, 12].

WHEAT ORIGIN

The record for the business shows a steady purchase of wheat brought from Talcahuano and Valparaiso in Chile along with occasional purchases of wheat grown in Peru. The wheat was carried primarily in the frigate *Maintinomo* although wheat carried in other ships was also bought (see Table 3).

AMOUNT PAID FOR WHEAT

The bakery records having paid out 121,350 *pesos* in cash for the wheat it bought. This figure is less than that for the total value of the wheat bought because there are some purchases which have only a partial payment on account noted. To show the average price per year paid by the bakery, as well as the maximum and minimum range of these wheat prices per year, the writer is indebted to an anonymous referee for the table contributed below. The figures serve to iron out seasonal and other variations per year so that a weighted, clearer progression of prices to 1819 can be seen. The details for the spikes of 1814, 1817 and 1821 are found in Table 3 and are plotted in Exhibit 1, Figure 1.

TABLE 1
WHEAT PURCHASES

Year	Total quantity bought (in bushels)	Number of purchases in the year	Average price	Maximum and minimum prices in the year
1812	1,000	1	3.50	3.50
1813	7,374	7	3.62	3.25-5.00
1814	2,070	5	6.80	3.50-10.50
1815	4,976	7	2.81	2.00-3.00
1816	2,907	2	2.46	2.00-3.125
1817	3,357	8	8.45	3.875-12.50
1818	1,405	4	9.76	9.25-11.125
1819	—	—	—	—
1820	100	1	9.50	9.50
1821	730	1	25.00	25.00

Source: "Cuenta corriente Conla casa Panaderia de la Pescaderia, que corre a cargo de don Julian Parga a partir de utilidades, y perdidas por mitad que principio en 20 de Dizre de 1814# 1816# del mes de Diciembre 1819# 1820# 1821#P." C4, Real Tribunal del Consulado, Legajo 129, Archivo General de la Nacion, Lima, Peru.

TAXES

Some direct taxes on the wheat were also paid by the bakery. The most important notations of these taxes are those for a Consulado collection of one *peso* per bushel on wheat brought to Lima by sea⁷ and the collection of four percent on a nine-peso per bushel price by the Royal Customs Service (see Table 3). There is also one entry for the payment of a *censo* (tax) on the bakery as a bakery of 351½ *pesos* for one year ending on the 28th of October 1820 and paid on the 20th of March, 1821 ["P foxas," *folio* 11].

However, most of the wheat bought by the *Panaderia Pescaderia* had evidently already had its taxes paid because there is the example of wheat bought in Bellavista in 1815 from

⁷*Por mar*, by sea, is the term used by the Consulado for the wheat not produced in Peru which was brought to market by sea. Peruvian wheat was termed "*Trigo Criollo*," Creole wheat. For one of the many documents which use these terms and for the explanation of the Consulado's *Trigo* and *Sebo* duty, [Wheat and Grease (or tallow, depending on its use)] and the Consulado's insistence on not taxing Peruvian wheat in 1815, see "Consulta," 1817.

Casteñeda who was a member of the *Gremio de Panaderos* (the Baker's Guild) of Bellavista and owed 15,039 *pesos* in taxes to the Consulado at one *peso* per bushel on his wheat by January 22, 1817 ["Razon," 1817].

This is to say that the two bakeries are related because a little more than a year before, Casteñeda had supplied wheat to the "Bakery in the Street of the Fishmarket" in December of 1815 ["P foxas," folio 5]. This was nine months after a particular tax on wheat and grease had been assigned to the Consulado for collection in February of 1815 ["Derechos," 1815]. Yet the *Panaderia Pescaderia* shows no taxes paid on any wheat bought in 1815 which included the wheat it bought from Casteñeda (see Table 3). Since Casteñeda was taxed in 1817, then he probably would have been in 1815 when the Fishmarket Bakery bought wheat from him. But the bakery does not pay any taxes on wheat in 1815 and this was the case for most of the wheat bought after 1815 and for all of the wheat it bought in 1817. On the other hand, what the account book does note, is that in some instances taxes have already been paid or are included in the price of the wheat bought (see Table 3 j, k), and it may be that most of the wheat in the account book had already had its taxes paid.

In fact, though, the *Panaderia a la Pescaderia* appears to note very few Consulado or Customs collections. But these collections are levied on the Baker's Guild or the Bread Supplier's Guild (*Gremio de Panaderos* and *Gremio de Abastecedores de Pan* — the two terms are used interchangeably in the document for Casteneda in 1817) ["Razon," 1817; "Libro de Cabildos 45," 1971, p. 142]. And the levies are not light: in January of 1817, the amount owed for Bellavista was 84,284 *pesos* for the *Gremio de Abastecedores de Pan* ["Razon," 1817]. In August of 1819, an expected levy on the Baker's Guild (*Gremio de Panaderos*) was 50,000 *pesos* ["Pasame," 1819; Pezuela, 1947, 398].

THE BAKERY'S THREE LARGEST ACCOUNTS

The three largest income-producing accounts noted for the bakery were for ship biscuit for the *Maintinomo's* voyages, for ship biscuit for Viceroy Pezuela's expedition to retake Chile in 1817 and for bread for the Hospital of the Holy Spirit.

In the case of the *Maintinomo*, there is a close relationship with this frigate beyond that of the bulk purchases made from the ship's wheat cargos. In fact, from the table below, one can see that 2,676 *pesos* worth of ship biscuit along with some

butter were sold as provisions for the *Maintinomo's* voyages from December 1815 to November 1820. By comparing these notations for ship biscuit sales with bulk wheat purchase information on the *Maintinomo's* cargos from Table 3, we have references to two more voyages than those from wheat sales alone (Table 3). These voyages are number 16 and 18, and the ports for voyage number 14 can now be listed as Penco⁸ and Talcahuano (Table 2; Table 3). There is also a 15 *peso* per hundredweight (*quintal*) price given for a ship biscuit purchase in 1818 ["P foxas," *folio* 9v].

TABLE 2

*"Diet Ship Biscuit" and Butter
Supplied to the Frigate *Maintinomo* by the
"Bakery in the Street of the Fishmarket" 1815-1820*

Date	Voyage	Destination	Amount Paid	Provision	Folio
March	1815 Voyage #14	Talcahuano	428 <i>pesos</i>	Ship Biscuit	4v
	Voyage #15	Valparaiso	200	Ship Biscuit	4v
December	1815 Voyage #16		126	Ship Biscuit	5
	1816 Voyage #18	Talcahuano	213	Ship Biscuit & Butter	6
September to	1817		791	Ship Biscuit & Butter	8v
January	1818				
	1818		380	Ship Biscuit	9v
November	1820		492	Ship Biscuit	10v
Total			2,676 <i>pesos</i>		

Source: "Cuenta corriente Conla casa Panaderia de la Pescaderia, que corre al cargo de don Julian Parga a partir de utilidades, y perdidas por mitad que principio en 20 de Dizre de 1814# 1816# del mes de Diciembre 1819# 1820# 1821# "P." C4, Real Tribunal del Consulado, Legajo 129, Archivo General de la Nación, Lima, Perú.

The second major account was that for ship biscuit to supply Viceroy Pezuela's expedition to retake Chile in 1817. This account gave the bakery a direct connection with the expedition in addition to that seen in terms of the price peaks shown for the bakery's wheat purchases during 1817 which occurred while the insurgent government established itself in Chile [Vargas Ugarte, 1958, pp. 140, 141]. In fact, here in 1817,

⁸*Trigo de Penco* [wheat from Penco (*Peen-co*)] is said by Peruvians to be a stage for the grain before processing or while processing, i.e., possibly unwinnowed wheat, instead of a place. However, the writer has not encountered this in the documents nor can he locate Penco, but Peruvians should know because the grain is widely eaten in soups as well as otherwise throughout Peru.

the bakery filled one of its biggest single orders when it supplied 1,600 *pesos* worth of ship biscuit for "the expedition to Chile in December 817" ["P foxas," *folio* 9v].

The third of the large accounts for the bakery was that for the Royal Hospital of the Holy Spirit. The account book shows that the bakery baked 6,172 *pesos* worth of bread for this hospital from 1817 to June 28th of 1821. The figures noted for this amount are;

For 1818 to December 19th	1,020 <i>pesos</i>
December 20, 1818 to May 31, 1819	1,165
May 30, 1819 to April 30, 1820	1,824
To June 28, 1821	2,106
Pharmacy of the Hospital of the Holy Spirit	57
	<hr/>
	6,172 <i>pesos</i> ⁹

THE 1821 WHEAT PURCHASE

It is in February or March of 1821 that the bakery's most important purchase was made. In fact, it is at this point that the account book provides some of its most important information, for not only has it given data which most likely otherwise would now be completely unknown on Lima wholesale wheat prices from 1812 to 1820, but here in 1821, it provides a sale price for one of two wheat cargos landed for Lima in the six months from January to July of 1821 [*Libro de Cabildos* 45, 1971, pp. 174, 179]. That is to say that this cargo, which is that of the *Maintinomo*, is the first of only two wheat cargos which are mentioned in the minutes of the city government of Lima for these years ["*Libro de Cabildos* 45," 1971, pp. 139-239, *passim*].

That these cargos were important and probably were the only two landed is seen when, in the minutes for February 18, 1821, the Bread Supplier's Guild (*Gremio de Abastecedores de Pan*) had had read into the record of the council (*Libro de Cabildos*), a request that their guild be authorized to divide the *Maintinomo's* cargo equitably among the bakers of the city so that some bakeries would not be closed (cut off from the supply) [*Libro de Cabildos* 45, 1971, p. 174].

On the 2nd of March, statements for wheat interned for the *Maintinomo* and for that of a second ship, the *Lord Lindok*,

⁹"P foxas," 1821, *folios* 9v, 10v, 11, 11v. The notation of 1,824 *pesos* includes 64 *pesos* for *galletas* (ship biscuit) assigned to the *Maintinomo* from the whole amount assigned to the Hospital for this entry. "P foxas," 1821, *folio* 10v.

were accepted by the Cabildo and passed on to the treasury for collection [Libro de Cabildos 45, 1971, p. 179].¹⁰ The only other cargos like the two mentioned for wheat are a cargo of flour brought by the *General Brown* from New York listed as ready for distribution on the 3rd of April, 1821, and a 254 barrel cargo of flour brought by the Russian frigate *Kontunoff*, which was first mentioned on the 18th of May 1821 [Libro de Cabildos 45, 1971, pp. 200, 201, 216, 218, 224].

Hence, the Cabildo records demonstrate that the *Maintinomo* wheat in 1821 was in demand in Lima. And the account book not only gives us the wholesale price for a purchase in bulk from the *Maintinomo* cargo, the price figures in the account book for the years since 1812 give us a comparison which shows that this wheat price in 1821 is radically higher than those of 1816-1819, not to mention 1812.

But perhaps the importance of the *Maintinomo's* cargo is put in even better perspective when thought of in terms of the beans from Chinchá. These are mentioned in an obscure note near the end of page 11v as having been bought at a price of 25 pesos per bushel.

That this 25 peso price for a bushel of beans is extremely high and is the result of Lima's problems is then spelled out in the city council minutes. Here there are repeated demands in January 1821 that the Viceroy intervene to stop a monopoly which had developed with the Chinchá *hacienda* owners because Lima was out of food ["Libros de Cabildos 45," 1971, pp. 151, 154]. The *quebrada* or canyon of Topará in the Chinchá district in particular was said to have both wheat and other staples, and the Lima Cabildo was repeatedly urged to do something about using these supplies. In particular, the Cabildo was to get the Viceroy to see that the military commander of the district stop the *hacendados* of the Valley of Chinchá from selling their wheat to speculators from Lima. Secondly, the government was to get the Viceroy to put a ceiling of five pesos per unit on first sales from the area and then to have secondary prices based on the first five peso sale. The Cabildo was next asked to find a means to subsidize buying wheat at Chinchá and bringing it to Lima [Libro de Cabildos 45," 1971, pp. 154, 156, 158]. This last statement was

¹⁰The *Lord Lindok* cargo also illustrates some of the danger that constantly stalked the *Maintinomo* and other ships supplying Lima in these last years because the *Lord Lindok* was captured on leaving Callao and lost 15,000 dollars which was later reclaimed through British pressure. Elias, Wu, Denigri Luna, 1974, p. 253, # 16.

on the 28th of January; on the 16th of February the *Main-tinomo* cargo was discussed for the first time, but then the cargo was evidently not distributed until March. The delay certainly would not seem to help the food situation in Lima; however, it does fit in with the account book's notations for the bakery's Customs and Consulado tax payments for March of 1821 (see Table 3).

FREE TRADE

The scarcity of food in Lima, particularly in January of 1821, is further emphasized by the demands for free trade made by the city government as a means of solving the problem. In fact, as the situation was worsening in Lima, the Cabildo went out of its way to register its general disapproval of the course of events by calling for the institution of free trade (*comercio libre*) at least three times: first in January, then in early February and then again in late April.

The question was first brought up by the Cabildo in 1821 on January 15th when the motion was made that, because of the lack of foodstuffs, an agreement be concluded with the English Captain Sheriff, evidently then in Callao, that free trade with the English be established for two years so as to end the scarcity of supplies for Lima.

The next day, the 16th, the Cabildo met again and the opposition view was that in order to supply the city, what was needed was free trade with all neutrals instead of free trade with only the English. The question as to whether the matter should be formally put to the Viceroy was voted on and failed on a 7 to 6 split with 7 votes against and 6 votes for the measure. The seven vote majority then tabled the proposal (sent the matter to the Cabildo archives) ["*Libro de Cabildos 45,*" 1971, pp. 148, 149].

The point was again brought up in the Cabildo session of February 3rd (shortly after Viceroy Pezuela had been deposed) when an official note was sent to the new Viceroy asking that the scarcity of grain and other foodstuffs for the city be ended by allowing free trade with neutral carriers ("*comercio libre en buques neutrales*") ["*Libro de Cabildos 45,*" 1971, pp. 148, 149].

The question was raised again on March 30th when a plea to the Viceroy was read into the minutes that special payments be made to bring supplies to the city in neutral ships ["*Libro de Cabildos 45,*" 1971, p. 197].

A month later, on April 25th, when a proposal that paper and copper currency be issued for 500,000 *pesos* to meet the

Viceroy's need for money, the plan was formally hedged by another request for "*comercio libre*" (free trade). That is, if the paper money measure did not work, free trade with neutral states be allowed because Cabildo members said that such free trade had already been allowed in Spain according to what they had read in the *Gaceta de Madrid* (*Madrid Gazette*) ["*Libro de Cabildos 45,*" 1971, p. 211].

PROFITS MADE BY THE BAKERY

The profits and losses seen in the biennial statements for the bakery show that the profits for each partner dropped from 13,972 *pesos* in December of 1814 (1812-1814), to 9,308 *pesos* in December of 1818 (1816-1818) (see Exhibit 1, Table 4). There are also the figures for liquidation of the business, the last figures given by the document, which show that from December of 1818 to the 28th of June, 1821 (two and a half years, instead of two years), the profits per partner were 18,160 *pesos* each. And in spite of the fact that this figure results from the liquidation statement, the inference is that there were also profits produced in this two and a half year period.¹¹

WHEAT PRICES AND THE PRICE OF BREAD

One of the most direct conclusions for the reader of the account book or of Table 1 or of Table 3 and Exhibit 1, Figure

¹¹This document says clearly that these 18,160 *pesos* are the profits for two and a half years for each partner. But the entry is complicated, so it is quoted in its entirety here.

Por 18,160 p^s 2½ r^s que recivi de Dⁿ Julian Parga producidas del balance, dado en 28 de Junio de 1821 [illegible] percivido dho p^r igual cantidad de utilidades de la Panaderia Pescaderia [Continued on folio 12]

37,989½ Haber del frente	Debe P 19,828.6
que ambas sumas hacen la totalidad de treinta y seis mil ciento noventa y cinco [36,195] y son dhas. utilidades correspondientes a dos anos y medio contados desde 20 de Dic. ^{bre} de 1818 hasta 28 de Junio de 1821 — quedando esa muebles y utensilios segun parece del balance dado en este presente ano a Once mil Seis Cientos noventa y dos [11,692], unica Cantidad q ^e Contiene dha Casa panaderia sin mas fondos en plata fisica, p ^r lo q ^e los citados 18,161 p ^s utilidad y habilitacion entregué á dho S ^r Ugarría, haciendo ya veinte dias que no se amasa hasta q ^e venga a esta Capital, que se empesara de nuevo el amasigo y p ^a q ^e Conste en todo tiempo y sirve de norma a la que la presente vieren, quedamos concluidos en todas nuestras Cuentas y los firmamos en Lima a 28 de Junio de 1821	
37,989½	Igual 37,989 ½

"P foxas," 1821, folio 12.

1, which are constructed from the account book's data, is that the price of a *fanega* (bushel) of wheat rose from a low in December 1815-January 1816 of two *pesos*, as seen in the entries for these months, to twenty-five *pesos* per *fanega* paid between February and April of 1821. This is a price-rise of eleven hundred and fifty percent.

But looking beyond the rise in the price of wheat, this nearly twelvefold increase in the price paid for wheat by the bakery clearly suggests an increase in the price of bread. And the implication that a rise in the price of bread occurred is reinforced by the December 1812-December 1818 profits shown for the partnership of 27,924 *pesos* in December of 1814, 23,555 *pesos* in December of 1816 and 18,615 *pesos* in December of 1818 (70,095 *pesos* in profits). It can be seen, then, that even though profits were falling, these profits were still coming in and they had continued while the price of wheat was going up (see Exhibit 1, Figures 1, 2).

That a price increase for bread would have occurred and would have continued until June of 1821 is further implied by one of the last statements in the document which notes that the Panaderia had a balance of "*once mil seis cientos y dos pesos*" (11,602 *pesos*) for January through June of 1821 (see note 11), as well as the two and a half year profit per partner of 18,160 *pesos* cited above and the 1817-1821 sales of bread to the Hospital of the Holy Spirit.

Moreover, that there was a crisis in the food supply for Lima as indicated from the demand for the *Maintinomo's* wheat, the beans from Chincha and the Cabildo's arguments for free trade is made even clearer by other information in the Cabildo minutes. In particular, there were continued complaints of gouging by "retailers" *i.e.*, pen-hookers or speculators (*regatones*) [Libro de Cabildos 45, 1971, pp. 144, 145, 155, 205, 225, 230, 231]. In fact, in early January, Viceroy Pezuela found it necessary to issue a decree declaring that "... mules carrying food supplies to this Capital will be respected by military parties and the packers are not to give up their mules on any pretext whatsoever ..." ["Libro de Cabildos 45," 1971, p. 145].

But of more importance, the Cabildo minutes show that bread itself was a special commodity in short supply. That an official effort was made to let bread prices increase from January to July of 1821 because of the scarcity is seen in the notations for the *real de pan* [*real* (*ray-al*) for bread] in the minutes of the municipal government meetings. The *real de pan*

was a measure by weight for bread that was priced at one *real* ($\frac{1}{8}$ of a *peso* for these years). In February of 1821, the *real de pan* or *real's* worth of bread, was six ounces of bread in three pieces [Libro de Cabildos 45, 1971, p. 174]. In January there had been some concern shown about being able to continue this much bread-weight for the one *real* amount and on February 16th, it was decided that the six ounce standard could not be maintained because of the difference in bread made from Peruvian wheat and that made from wheat from Chile. (Nothing was said about what the weight should be).

Instead, since some three days before on the 13th, a concession had been made to grocery or food stores (*pulperias*) which let them sell the one *real* amount in two pieces instead of three, this decision was applied to all *real de pan* sales. That is, on February 16th, the one-*real* bread amount could be in two pieces instead of three [Libro de Cabildos 45, 1971, pp. 143, 171, 174].

Nothing further was noted in the Cabildo minutes until April. Then, on the 3rd, the Cabildo decided that the best weight that could be assigned to the *real de pan* was 4½ ounces "... regardless of ... suggestions against it" [Libro de Cabildos 45, 1971, p. 201]. So, the price may have gone up in terms of the two, instead of three piece division of the one *real* measure, but then a formal price rise was allowed when the *real de pan* weight was dropped to 4½ ounces from 6 ounces. This 1½ ounce drop in the amount of bread-weight per *real* would mean that there had indeed been a formal price increase of 25 percent by weight, officially at least, in the first four months of 1821. And this price increase agrees in principal with the price rise implied by the bakery's profits.

CONCLUSION

Thus, to put the account book's information on a more limited base, the conclusions which are most directly pointed to are that the price of wheat per bushel paid by this centrally located bakery in Lima rose eleven hundred and fifty percent between 1812 and 1821 (particularly between late 1816 and 1821) and that the profits after the bakery paid this increased cost indicate a rise in the price of bread to cover the increased cost of the wheat.

And here, with the translation and analysis of this small account book, we have a cross section, a good sample of particular wheat price data during the independence move-

ment in Perú before 1821: a point of some importance because the bread made from the twenty-five *peso* wheat was then, as it is now, the basic staple in the diet of the Lima population.¹²

REFERENCES

- Basadre, Jorge. *Historia de la República del Perú*. Tomo I 1822-1856. Lima, Perú. 1949.
- Bonilla, Heraclio et al. *La Independencia en el Perú*. Lima, Perú: Instituto de Estudios Peruanos. 1981.
- Burzio, Humberto F. *La Moneda de la Tierra y de Cuenta en el Regimen Monetario Colonial hispano-Americano*. Madrid, Spain. 1949.
- "Consulta del Real Tribunal del Consulado," 26 April 1815, C4, Real Tribunal del Consulado. Administrativo. Legajo 25. Archivo General de la Nación, Lima, Perú.
- Denegri Luna, Felix, ed. *Diarios y Crónicas*. Tomo XXVI in *Coleccion Documental de la Independencia del Perú*. Lima, Perú, 1971.
- Doering, Juan Gunther, ed. *Planos de Lima 1613-1983*. Lima, Perú: Municipalidad de Lima Metropolitana. 1983.
- "El Contador hace presente a VS . . .," 2 September 1820, C4, Legajo 5, Archivo General de la Nación, Lima, Perú.
- Elias, J. J., comp; Denigri Luna, Felix, ed.; Wu, Celia, trans. *La Marina 1780-1822 Tomo VII in Coleccion Documental de la Independencia del Perú*. Lima, Peru: 1974.
- Fisher, John Robert. *Government and Society in Colonial Perú 1776-1824*. London: 1970.
- _____. *Minas y Mineros en el Perú Colonial*. Lima, Perú: 1977.
- _____. *Silver Mines and Silver Miners in Colonial Peru, 1776-1824*. Liverpool, England, 1977.
- Gamio Palacio, Fernando, *La Municipalidad de Lima y La Emancipación 1821*. Lima, Perú: Concejo Provincial de Lima Comision Municipal del Sesquicentenario de la Independencia Nacional. 1971.
- "Derechos," Robert Sidney Smith Collection, AHMH Libro 1234, folios 11-13 (Derechos in red pencil). From manuscript book in Archivo General de la Nación, Lima, Perú.
- Libro 1239, "Oficios del Tribunal del Consulado de Lima desde 10 de Agosto de 1820 hasta 5 de Julio de 1821." Archivo General de la Nación, Lima, Perú.
- "Libro de Cabildos 45," in Gamio Palacio, Fernando, *La Municipalidad de Lima y la Emancipacion 1821*. Lima, Perú: Consejo Provincial de Lima Comision Municipal del Sesquicentenario de la Independencia Nacional. 1971.
- Lohman Villena, Guillermo. "La sección manuscrito de la Biblioteca del Ministerio de Relaciones Exteriores del Perú." In *Handbook of Latin American Studies VI*, pp. 518-522. Cambridge, Massachusetts: 1940.
- _____. "En torno de Juan Hevia de Bolaño," *Anuario de Historia del Derecho Espanol* (1961), pp. 121-161.

¹²In 1815, the Lima *Consulado*, in its discussion of the Viceroyalty's Wheat and Grease (*Trigo y Sebo*) tax policy, quotes Bread (*Pan*) as being "... an article of the first necessity . . ." The *Consulado's* greatest concern was that there "... not be any lack of the Wheat necessary to the consumption of this Capital [Lima] and the areas immediately surrounding it." "Consulta," 1817.

- Lynch, John. *The Spanish American Revolutions*. New York: 1973.
- Mills, P. A. "Financial Reporting and Stewardship Accounting in Sixteenth Century Spain," *The Accounting Historians Journal* (Fall 1986), pp. 65-76.
- _____. "The Probative Capacity of Accounts in Early-Modern Spain," *The Accounting Historians Journal* (Spring 1987), pp. 95-108.
- Moore, John Preston. *The Cabildo in Peru Under the Bourbons A Study in the Decline and Resurgence of Local Government in the Audiencia of Lima 1700-1720*. Durham, North Carolina: 1966.
- "P foxas 12 Con Dⁿ Julian Parga sobre la Penad^a Pesc^a," "Cuenta Corriente con la casa Panaderia a la Pescaderia, que corre al cargo de don Julian Parga, a partir de utilidades, y perdidas por mitad, que principio en 20 de Dizre de 1814#1816#1817#1818#del mes de Diciembre 18-19#1820#1821# P," C4, Real Tribunal del Consulado, Legajo 129, Archivo General de la Nacion, Lima, Perú.
- "Pasame V.S. inmediatamente una razon . . ." 16 August 1819, Superior Gobierno, Legajo 8, Archivo General de la Nación, Lima, Perú.
- "Razon de lo que adeuda el gremio de Panaderos . . .," 22 January 1817, Libro 1234, folio 3v. H3, Archivo General de la Nación, Lima, Perú.
- Pezuela, Joaquin de la. *Memoria de Gobierno*. Edited by Vicente Rodríguez Casado and Guillermo Lohman Villena. Sevilla, Spain: 1947.
- "Se deterioran valiosos documentos históricos," *El Comercio* (Lima), September 18, 1987.
- Smith, Robert Sidney. "Prologo," to *El Indice del Archivo del Tribunal del Consulado de Lima con un Estudio Histórico de esta Institución por Robert Sidney Smith*. Edited by Federico Schwab. Lima, Perú: Archivo Histórico del Ministerio de Hacienda y Comercio, 1948.
- Vargas Ugarte, Ruben. *Historia del Perú: emancipación, 1809-1825*. Buenos Aires, Argentina: 1958.
- _____. *Historia General del Perú*. Edited by Carlos Milla Batre. 7 volumes. Lima, Perú: 1971.

A. A. FITZGERALD ON THE “PRINCIPLES OF ACCOUNTING”

Foreword by Louis Goldberg

EDITOR'S INTRODUCTION

In recognition of the Fiftieth Anniversary of the publication of *A Statement of Accounting Principles* by Thomas Henry Sanders, Henry Rand Hatfield, and Underhill Moore, we are pleased to reprint the point of view of A. A. Fitzgerald and to provide a specially prepared Foreword on Fitzgerald himself, written by Professor Louis Goldberg. In an age when the controversy and comparison of normative and positive views of accounting theory continues — it is our view that a reconsideration of this material is appropriate. Copies of *A Statement of Accounting Principles* are available at a nominal price from the Amercian Accounting Association offices.

Further commentary on Fitzgerald, the study itself and related matters can be found in several writings including:

R. J. Chambers, L. Goldberg and R. L. Mathews [Eds.], *The Accounting Frontier: In Honour of Sir Alexander Fitzgerald* [F. W. Cheshire, Melbourne: 1965].

M. Chatfield, *A History of Accounting Thought*, pp. 239 ff, 288, and 296. [Dryden Press, Hinsdale, Ill: 1974].

H. T. Deinzer, *Development of Accounting Thought*, pp. 17 ff, 147. [Holt, Rinehart, Winston, New York: 1965].

G. J. Previts and B. D. Merino, *A History of Accounting in America*, pp. 261-290 passim. [Ronald Press/John Wiley & Sons, 1979].

S. A. Zeff, *Forging Accounting Principles in Five Countries: A History and An Analysis of Trends*, p. 131 ff. [Stipes Publishing Co., Champaign, Ill: 1972].

_____. *Forging Accounting Principles in Australia*, p. 29 ff. [Australian Society of Accountants, Melbourne: 1973].

FOREWORD

In Australia, Adolf Alexander Fitzgerald (1890-1969) was the outstanding accounting figure of his time. Practitioner, academic, lecturer, writer and editor, researcher, advisor to governments and active participant in many economic, financial and accounting issues, office-bearer in professional and cultural organizations, member and, in several cases, chairman of governmental bodies, director of companies; all these were part of his life and its achievements. For services to the Australian community he received acclaimed recognition by the award of Officer of the British Empire (O.B.E.) in 1953, and Knight Bachelor (Kt) in 1955, when he became entitled to be known as Sir Alexander Fitzgerald.

When he was appointed to the chair of accounting at the University of Melbourne in 1954, he became the first professor of accounting in any Australian university; he held this appointment until 1958.

At the time he wrote this article he was editor of *The Australian Accountant* and I believe he thought one of his functions as editor was to bring the latest and the best in overseas developments and opinions into the range of at least the potential cognizance of accountants in Australia. In carrying out this function, he regarded himself (in my opinion) as an analytical reporter of happenings in other countries.

In bringing the Sanders, Hatfield and Moore study to the attention of Australian accountants, Fitzgerald hails it as an important contribution, which, indeed, it clearly was. He draws a distinction between a principle, which he defines as "a fundamental truth used as a basis of reasoning" and a convention, which is "merely a generally accepted practice, which may or may not be based upon reasoned analysis". However, he does not examine the nature of a "fundamental truth" and so does not consider the relativity of "truth" or the degree of acceptance implicit in the "fundamentalism" of it. Hence, he does not ask what difference, if any, there may be between one generally accepted practice which, while based upon reasoned analysis, could still fall within his definition of a convention, and another which is developed by reasoning from the basis of a fundamental truth; if the reasoning process is the same the difference can only lie in the axioms or accepted propositions from which it starts.

He points out that the adoption of principles would remove many uncertainties, and he furnishes examples, one of which — the use of the term "reserve fund" — he had discussed at length

two years previously in a paper on Accounting Terminology [Fitzgerald, 1936, pp. 142-149]. He suggests that, except for a few differences in terminology and classification, arising mainly from differing legal requirements, the Sanders, Hatfield and Moore Statement was applicable to Australia. He points out, however, that in its concentration on the published reports of corporations the Statement seemed to ignore the problems faced by "internal" accountants.

It will be recalled that the Statement was one of the very early contributions in the long-running search for accounting principles which stemmed from the U.S. legislation in 1933 and 1934 relating to corporation securities. While the label "principles" may have been forsaken in the course of discussion over the next half-century, the substance of what was being sought has not changed fundamentally; accountants are still looking for a security blanket of theory to protect them from misinterpretation of accounting "circumstances" or "situations." A number of standards are currently in force which govern much of the accounting treatment of numerous controversial items, but the relation of many of these specifications to underlying "principles" or "conceptual framework" or theory is often unclear.

In the half-century since the article appeared, not only has much discussion taken place, among academics and professional accountants alike, but much practice has changed, as well as much of the economic and financial environment. Technological developments have greatly affected the process of amassing and colligating data, and the approach to auditing is now based much more on analytical perceptiveness and emphasis on internal control than the earlier tick-and-tot verificatory methods. In 1938 the holding company, while not unknown in Australia, was still a minority form of structure in corporate organization [Goldberg and Hocking, 1949], whereas nowadays it would be rare indeed to find a publicly listed company which does not have subsidiaries and hence require consolidated financial statements.

A series of statutory amendments to company legislation, which in 1938 differed from state to state, have greatly increased the obligations for disclosure of information in company annual reports and these obligations have applied nationally since the adoption of "uniform" company legislation in 1961. Since that year the several states have had the same statutory requirements for all incorporated companies, differing only in minor aspects to conform to strictly local cir-

cumstances, so that now all companies, irrespective of the state or territory of registration, are subject to the same set of statutory provisions and regulations. A National Companies and Securities Commission (NCSC) has been set up under Commonwealth legislation to monitor and oversee company activities; it operates both directly and through state Corporate Affairs Commissioners, who have taken over most of the tasks previously carried out by the State Registrars of Companies; these tasks include checking of prospectuses, registration and incorporation of companies, reception and custody of annual returns comprising both financial and non-financial information, removal of defunct companies from the register, and the like. The stock exchanges also have tended to act in unison in requiring listed companies to provide more timely information.

Company reporting has also been affected by the joint publication of standards by and in the name of the two predominant professional accountancy bodies, The Institute of Chartered Accountants in Australia (ICAA) and The Australian Society of Accountants (ASA). These standards are prepared by the Australian Accountancy Research Foundation (AARF), a body which was set up jointly by the two professional bodies in 1965. In the last few years the standards have been subject to review and approval of an Accounting Standards Review Board (ASRB), appointed by a Federal Minister to monitor them; such approval now gives a standard the force of law.

The task of developing and maintaining "Statements of Accounting Concepts and Statements of Accounting Standards" has been vested in two boards within the AARF — an Accounting Standards Board and a Public Sector Accounting Standards Board. The professional bodies nominate the members of these boards, which are supported by the full-time technical staff of the Foundation. Approval for public issue of any Standard lies with the National Councils of the ICAA and ASA.

The development of a Standard involves an extensive "due process" which is "considered essential to ensure that all interested parties are given ample opportunity to express their views and to ensure that the concepts and standards so developed are relevant, consistent and logically derived." This process comprises (1) initiation of a project by a Board "in response to the identification of emerging issues", (2) appointment of a Project Advisory Panel to review progress and serve as a resource base for a project, (3) preparation of a discussion paper or an "accounting theory monograph" by an external contractor or a Foundation staff member, (4) preparation by

the contractor and discussion by the Board(s) of a "key decisions questionnaire" identifying the principal issues to be resolved in a proposed Standard or Statement of Concepts, (5)-preparation of a "draft exposure draft", (6) refinement of the draft exposure draft by the Board(s) and distribution for comment to selected people regarded as knowledgeable of, interested in or involved with the topic, (7) review and amendment of the draft exposure draft in the light of responses received, (8) distribution of an exposure draft inviting comments from interested parties, with a simultaneous press release, advertisement in business newspapers and an insert or article in the monthly journals of the two bodies drawing attention to the exposure draft (the Foundation has a registrant mailing list of some 10,000 names, while the professional journals are sent to over 86,000 people), (9) preparation of a draft Standard or Statement of Accounting Concepts after full consideration of views expressed in the former stages, (10) if deemed necessary or advisable, a further selective exposure of a "refined" draft, (11) submission to the National Councils of the professional bodies for approval, (12) if approved, issue of the Standard or Statement by the National Councils.

In the light of such developments as these, Fitzgerald would no doubt freely, and perhaps gladly, acknowledge that the quantum of information in the annual reports of companies — at least of those listed on the stock exchanges, which are of most concern to the general investing public — has vastly increased. Indeed, it has increased to such an extent and is sometimes couched in such abstruse language (designed, no doubt, to convey technical accuracy) that much of it is comprehensible only to an expert in company financial analysis, while alternative treatments are still possible for many items of financial importance in assessing the likely fortunes of companies. At the very least, however, he would be able to express some gratification that Australia now is among the front runners in the setting of accounting standards.

Despite these changes it is nevertheless open to question whether there has been much progress in the essential problem facing accountants in this area, namely, the search for principles which express fundamental truths from which accountants can draw, with confident justification, the practices and procedures that they see to be necessary. Whether called "principles" or "conceptual framework", the security blanket has not yet been secured.

Even with the elaborate preparatory procedure, few, if any, standards as issued include reasoned, detailed discussion of

salient points, with argument for and against, before prescribing a practice under penalty of some kind of sanction for non-compliance. It will be suggested, no doubt, that the time and place for such argument is during the "due process", and especially when an exposure draft is issued for public discussion. This is accepted, but this phase does not provide for an exchange of views; it merely invites submissions which are not normally debated or discussed with the provider, but are taken into consideration by the processors. The practice in Australia, at least, is that the submitter eventually receives an acknowledgement and thanks for the submission. Thus, the standards present an appearance of ukase rather than "reasoning from sound principles". Perhaps we should not be too amazed at such an outcome from what seems to be more a politico-legal than a philosophico-scientific approach to the situations that accountants face.

If Fitzgerald were still available in the current environment, he would, of course, because of his eminence, be a prominent contributor to the standard-making process and no doubt he would be a member of at least one of the bodies involved in it; in this capacity he would bring his wide experience and strong influence to bear on the outcome. Whether that outcome to date would have been markedly different is purely speculative. The answer probably depends on whether the problem is, indeed, tractable or not, and this, in turn, depends on whether there are, in fact, any "fundamental truths" to be discovered in accounting theory or whether, in the last resort, there are only assumptions of human convenience and of limited applicability. This is a question still to be determined, if it is determinable at all: it remains a matter for the future, not the past.

Louis Goldberg

REFERENCES

- Accounting Standards Review Board, Releases, 1985, 1986.
- Australian Society of Accountants and The Institute of Chartered Accountants in Australia, Foreword to Statements of Accounting Concepts and Statements of Accounting Standards, 1985.
- Fitzgerald, A. A., Accounting Terminology, in *Proceedings of the Australian Congress on Accounting*, Melbourne, 1936, pp. 133 ff. Reprinted in Fitzgerald, A. A., *Current Accounting Trends*, Sydney, Butterworth, 1952, pp. 82-102.
- Goldberg, L. and Hocking, D. M., Holding Companies in Australia, paper presented to Australian and New Zealand Association for the Advancement of Science, 1949.

A REPRINT OF PRINCIPLES OF ACCOUNTING*

By A. A. Fitzgerald

In the Editorial, under the title "Principles of Accounting," in the February issue of the journal, reference was made to the *Tentative Statement of Accounting Principles Underlying Corporate Financial Statements* published by the Executive Committee of the American Accounting Association in the June, 1936, issue of *The Accounting Review*.

Another important publication on a similar subject, though of wider scope, has just reached Australia. This is the report, by Professors T. H. Sanders (Harvard), H. R. Hatfield (University of California) and Underhill Moore (School of Law, Yale University), made at the invitation of the Haskins and Sells Foundation on the subject of accounting principles. The executive committee of the American Institute of Accountants, believing "the report contained in this booklet to be a highly valuable contribution to the discussion of accounting principles," has authorized its publication, under the title, *A Statement of Accounting Principles*, for distribution to all members of the Institute and others interested in accounting. Australian students of American accounting texts will share the belief of the Executive Committee of the Institute that "the standing of the three authors who collaborated in the work will assure a wide and respectful hearing." Copies may be obtained from the American Institute of Accountants, 135 Cedar Street, New York, at 75 cents a copy.

The publication of the Report, following on the discussions by members of the American Accounting Association, suggests a growing disposition on the part of the accountancy profession in America to explore the possibilities of developing a body of principles which might become accepted as standard practice. The direction of thought along this line has doubtless been accelerated in recent years by the activities, publications and pronouncements of such bodies as the Securities and Exchange Commission, Internal Revenue Bureau and the New York Stock Exchange, as well as the Accountancy Institutes. Yet in spite of the efforts of these bodies, the Haskins and Sells Foundation, in its letter of invitation to the three authors of the report, expressed the view that "Accounting practices are based, in a large

*Reprinted with permission from *The Australian Accountant*, pp. 102-110, March 1938.

measure, upon the ethics and opinions of reputable accountants, and to some extent upon the accounting provisions of the various laws, but wide variations of opinion often exist among equally reputable practitioners. There is no unified body of opinion, nor is there any official tribunal for the final determination of technical differences of opinion." The same might be said, of course, of the conditions in Great Britain or Australia.

Indeed, there will be many who will doubt the desirability of attempting to develop uniform principles of accounting. The traditional English attitude towards such proposals would seem to be that accounting, in its highest reaches at all events, is very largely concerned with matters in which legitimate differences of opinion are inescapable, and that it is better that such matters should be left to the judgment of individual practitioners than that an attempt should be made to replace judgment by set routine.

The difference in outlook between what might fairly be called the traditional English attitude and the American approach is well illustrated in the realm of auditing by the issue by the American Institute of Accountants of its bulletin, *Examination of Financial Statements by Independent Public Accountants*, and by the publication by the American Institute Publishing Co. Ltd. in recent years of several works devoted to auditing procedures.

No one doubts, of course, the skill of the British accountant and the high plane to which accountancy practitioners and writers in Great Britain have raised financial accounting, by the exercise of skill and judgment of a high order. No one who is thoroughly conversant with the nature of accountancy work believes that it will ever be possible to dispense with the critical faculty and to compress the accumulated experience of practitioners to set rules. The question is one of degree, and, as it seems to me, the development of accounting principles is not necessarily inconsistent in any way with a full recognition of the need for discernment and discrimination in the application of those principles to practical problems.

It is necessary to distinguish between principles and conventions. A principle may be defined as a fundamental truth used as a basis of reasoning: a convention is merely a generally accepted practice, which may or may not be based upon reasoned analysis. Some of the generally accepted practices of accountants are pure conventions, others have their roots firmly fixed in principle. Is it not desirable that, in the daily practice of our vocation, we should clearly understand whether

our actions and decisions are based upon principle or upon mere convention, departure from which may be justifiable, or even desirable, in specific circumstances? How, in present circumstances, is an individual accountant to be guided in making this decision otherwise than by his own personal prejudices and predilections? Would it not be preferable that there should be available to everyone an established body of principles acceptable to, and approved by, the profession generally and its organized institutions?

Reference was made in an Editorial in the October, 1937, issue of this journal, to the use by an auditor in Victoria of a form of audit report similar to the form which, by arrangement between the American Institute of Accountants and the New York Stock Exchange, has come into common use in America. It will be remembered that the form in question refers to the accounts reported upon as having been drawn up in accordance *with accepted principles of accounting maintained by the company during the year under review. Such a report presupposes, of course, that there is such a body of accepted principles.* Whethec it can truly be said in Australia that this is so is very much open to question. Anyone may test the question for himself by submitting a short series of questions on accounting principles to half a dozen different practitioners. I venture to think that the result would be to disclose a surprising absence of unanimity.

But it is not merely because the development of principles would remove some of the uncertainties with which accountants are now faced that it is desirable to explore the possibilities of laying down generally acceptable propositions. Companies Acts, Articles of Association and Partnership Deeds could be freed from some of the obscurities and ambiguities by which their accounts provisions are now marred if there were some means by which draftsmen and lawyers might be able to satisfy themselves as to generally accepted accounting principles.

Consider, for example, that provision of the Victorian Companies Act (Sec. 115 (4)) by which

“No balance sheet summary advertisement statement of assets and liabilities or other document whatsoever published issued or circulated by or on behalf of a company shall contain any direct or indirect representation that the company has any reserve fund unless —

- (a) such reserve fund is actually existing; and
- (b) the said representation is accompanied by a state-

ment showing *whether or not such reserve fund is used in the business*, and if any portion thereof is otherwise invested showing the manner in which and the securities upon which the same is invested."

Whether you will or will not consider that a reserve fund can be used in the business (and consequently whether you believe the statutory provision to be meaningless or not) will probably depend upon whether you were brought up on Dicksee or Spicer & Pegler. There is no way in which you — or the Parliamentary draftsmen — can decide which of the alternative interpretations of the meaning of reserve fund is the more "generally accepted."

Again, during the discussions in 1936 on the proposed amendments to Victorian Company legislation, a clear indication of the lack of agreement amongst Australian accountants on a vital accounting problem was provided by the discussions as to whether or not holding companies should be required to publish consolidated statements, and if so, as to the principles governing the preparation of such statements.

Here are two of the questions which might be submitted to the selected panel of practitioners in order to decide whether there exists a need for clarification of the principles upon which our daily work is based.

In other directions, also, the need for a code of principles is urgent. In the words of the Haskins and Sells Foundation, "the profession of accountancy owes to business, the investor, the credit grantor, the educational institution, and to itself the duty to accept the task of formulating such a code of principles, as the legal profession has concerned itself, from time to time, with the clarification and simplification of the civil and criminal laws of the country."

The task of formulating such a code is, of course, beset with pitfalls. It would be necessary to avoid the temptation to multiply the number of principles, to elevate conventions of convenience to the status of principles, and to overlook those numerous instances in which differences of treatment according to differences of circumstances are unavoidable and even desirable. The authors of this Report have shown themselves to be fully alive to these dangers, and in particular to the fact that within certain limits there are differences in treatment which (adopting a phrase used by the Securities and Exchange Commission) "differences of opinion might condone."

For the most part, the statement is applicable to Australian conditions equally as well as to American conditions, though

the section dealing with "Capital Surplus" is mainly concerned with problems which do not arise in Australia owing to the difference in company law provisions as to the issue of shares at a discount and the dealing in its own shares by a company.

Certain differences in terminology and certain features of the characteristic approach of American accountants to the classification of balance sheet items may, however, trouble the Australian reader who has not previously studied American texts. In the hope of assisting readers of this journal — and particularly students — to study the statement, the following explanations are offered:

1. *Classification of Balance-Sheet Items*

(a) American text-books on accounting commonly approach the subject from the angle of the balance sheet equation, the simple form of which is $\text{Assets} = \text{Liabilities} + \text{Net Worth}$ (or *Proprietorship*). The net worth consists of the *Capital Stock plus Surplus*, *Surplus* being the "amount by which the total amount of the equity of the stockholders of the corporation exceeds the amount of the legal (paid-up) capital."

- (i) *Earned Surplus* and
- (ii) *Surplus other than Earned Surplus* — sometimes called "*Capital*" *Surplus*.

(b) *Unearned Surplus* arises from the issue of *Capital Stock* at a premium and from certain other practices in corporation finance which have no counterpart in Australian company finance. *Earned Surplus* corresponds to the accumulated profit of an Australian company, which is, of course, the sum of the credit balance in *Profit and Loss Appropriation Account* and in the "*General*" *Reserve Accounts*. *Earned Surplus* may be subdivided into:

- (i) *Appropriated Surplus* and
- (ii) *Unappropriated or Free Surplus*.

Surplus is *Appropriated* when it has been earmarked for some special purpose (such as, for example, the purchase of additional equipment). It should, of course, be carefully noted that so-called "*Reserves*" for *Depreciation*, *Taxation*, *Doubtful Debts*, *Accrued Liabilities* and the like are not part of *Surplus* but are either deductions from assets or current liabilities.

- (c) The arrangement of assets and liabilities in homogeneous groups — which is regarded as good practice in Australia, but which is by no means universally used here — is customary in America.

The principal balance sheet groups are:

Assets –

Fixed — comprising Property and Plant, Intangible Assets (usually shown separately) and Investments held for control purposes.

Current — comprising Cash, Marketable Securities, Notes (i.e., in Australian terminology, Bills) and Accounts Receivable, and Inventories (i.e., in Australian terminology, Stocks and Stores).

Deferred Charges and Prepaid Expenses.

Liabilities –

Long Term Debt (e.g., Floating Charge Debentures).

Current — subdivided into trade obligations, bank borrowings, accrued expenses, borrowings from officers, and other obligations.

2. *Differences in Terminology*

Some minor differences in terminology have already been noticed. Another notable difference is the use of the term “Income,” which is defined as “the owner’s share of the increment in wealth arising from the use of capital wealth, and from services rendered,” in the sense in which we would use the term “Net Profit.” “Depreciation” of wasting assets is generally called “depletion.”

So far as the “Income Statement” (Profit and Loss Account) is concerned, good American practice gives careful attention to classification. The distinction between the operating and the nonoperating sections is regarded as fundamental. The operating sections “must include the operation of the main function of the enterprise. It need not include incidental operations” (such as interest or dividends earned on investments in unrelated industries). “It must exclude the interest cost on borrowed funds.” And — characteristic of the American desire for accounts which shall be useful for analytical and comparative purposes — “items of income and expense should not be treated in the income statement in such manner as to make it impossible or difficult to ascertain the net operating income.”

With these differences in mind, Australian readers should have no difficulty in applying the suggested principles to Australian conditions, and there is no reason why the booklet

should not be extensively used here by both students preparing for examinations and by those who have passed that stage. The student should find it invaluable as a guide to the study of fundamental accounting concepts; the practitioner should find it useful in giving greater certainty and refinement to his knowledge of the principles to which he is endeavouring day by day to give practical application.

Is it too much to hope that the statement will be widely read in Australia, and that it will give rise to discussions as to the application of the principles generally to Australian conditions and as to the acceptability or otherwise of the author's propositions on controversial points?

With the object of arousing the interest of readers of this journal in the subject of accounting principles, I should like to submit brief comments on some of the points which, amongst many, have particularly aroused my interest in reading the statement.

In the first place, I am struck by the concept of the functions of accountancy adopted by the authors. On page 4, they say:

"Summarising, it may be said that the functions of accounting are:

1. Making a historical record, properly classified, of all the transactions of a business enterprise;
2. Making from time to time the calculations and estimates necessary to a determination of the financial condition of the business and its income;
3. From these historical records, calculations, and estimates, preparing from time to time statements showing all the more important aspects of the capital and income of the business and of the legal equities in them satisfying thereby the need for information of all the parties in interest, especially of:
 - (a) the management of the business,
 - (b) outside groups, such as investors and creditors,
 - (c) government, in such matters as taxation and regulation."

Elsewhere (for example, in discussing the General Principles of Income Determination, on page 26) they make it clear that they regard the accountant as concerned primarily with a "plain showing of the facts," and that "when the facts as such have been clearly stated to the intelligent reader, interpretation should be left to him."

As a statement of the functions of the independent accountant or external auditor, this appears to me to be much more nearly adequate than it is as a summary of the functions of the internal accountant. Emphasis on the historical nature of accounting records and statements seems to neglect the growing importance of cost accounting and budgetary control, and the considerable degree of skill in interpretation which these lately developed branches of accounting involve.

Accountants, as such, have of course nothing to do with the exercise of judgment as to the future prospects of a business, which is one of the characteristic functions of the judicious manager or investor, but there are surely many occasions on which both internal and external accountants are called upon, by specific instructions, or as a matter of extra-legal responsibility, to do considerable work of an interpretation character in connection with accounts.

Another matter of particular interest is the discussion of the vexed problem of "Secret" Reserves. The authors very properly discriminate carefully between the need for conservatism in accounting statements and the concealment of profits intentionally or by careless or illogical classification. After an interesting consideration of specific examples of the proper application of the principle of conservatism, they state the conclusion that:

"Proper reserves for all purposes should be insisted upon; they are to be regarded as sound accounting and a source of financial strength to the company. To this extent conservatism is to be commended. But to arrive at profits on the books by recognized methods and then to conceal part of them in the published report, is a practice which cannot be approved."

One is reminded of the aphorism of Mr. E. C. Dyason, in an address some years ago to the Commonwealth Accountants' Students' Society that most people applaud the suggestion of caution implied in the term "Reserve," but many attribute the whole merit to the secrecy, ignoring the fact that Reserves may be created without secrecy.

A general principle of the utmost importance in its implications both as to valuation problems and the form and terminology of published accounts is that "the basis of the treatment applied to the several items should be adhered to consistently from period to period; when any change of treatment becomes necessary, due attention should be drawn to the

change." Only by following this principle can the comparison value of accounting statements be preserved, and, whether interpretation is to be carried out by the accountant or by his clients, it must generally be based upon analytical comparisons between statements prepared in respect of successive accounting periods.

As to the vital question of depreciation, several possible grounds of controversy still survive, in spite of the attention that depreciation problems have received from generations of accountants and accountancy writers. The authors accept the view — steadily coming into wide acceptance — that the *main purpose* of the accounting provision for depreciation is to allocate to the period a proper amount of operating expense, that "the uncertainty of any estimate of replacement cost makes it a less desirable base for computing depreciation than the known original cost, and that the "allocation of the total depreciation to the several fiscal periods should not be capricious." This, of course, leaves open to individual preference, in the light of circumstances, the selection of the most suitable of the several available methods of allocation.

Several possibilities exist as to the manner in which depreciation should be treated in the income statement and the balance sheet. In the income statement the important consideration is that the amount provided should be clearly shown, though the precise place at which it appears cannot and need not be subject to any rigid rule.

So far as the balance sheet is concerned, the best practice is to show the depreciation provision as a direct deduction from the Fixed Assets. Analysis of 500 balance sheets for four years show a large and increasing preponderance of cases in which this practice is followed.

The unfortunate persistence of the use of the term "Reserve" to describe a variety of things is one of the most unsatisfactory defects of accounting terminology. It is too much to hope that any approach to uniformity in giving greater certainty to the technical meaning of this term will yet have been achieved. The authors are perforce obliged to content themselves with an analysis of the distinct meanings of the term. The use of other titles for such accounts as "Reserve for Depreciation" would enable the term "Reserve" to be used only to describe appropriations or earmarking of surplus. The authors think that there is much to be said for the term "Allowance for Depreciation," but "common practice has adhered to the older name."

In view of the opinion expressed by the Committee on Accounting Terminology of the American Institute that "the expression 'Reserve for Depreciation' is so generally used and understood by bankers, the business world and accountants that its use should be continued," it is obviously not possible to say that the term "Reserve" should not be so used, at any rate in America. But it is a matter for regret that adherence to custom is thus operating as a hindrance to the removal of a potent cause of confusion in accounting statements.

I hope these few comments will have awakened the interest of readers in a publication of the utmost importance. I shall be glad if they result in a discussion by Australian accountants in the columns of *The Australian Accountant* of the "Statement of Accounting Principles." Both because of the intrinsic significance of the subject and because of the skill with which it has been handled by Professors Sanders, Hatfield and Moore, it deserves the closest consideration.

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REVIEWS

BARBARA D. MERINO, EDITOR
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REVIEW ESSAY

REFLECTIONS OF A RENAISSANCE SCHOLAR: Carl Devine's *Essays in Accounting Theory*, Volumes I-V, (AAA, members - \$8.00 each or \$40.00 paperback set; nonmembers - \$12.00 each or \$60.00 paperback set)

Reviewed by
Edward Arrington
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For most of us, certain texts stand not as documents from which one learns; but, rather, like friends and family, as sources from which self concepts are formed. Along with a few novels and works in philosophy, Carl Devine's *Essays in Accounting Theory*, which span five decades of his work, occupy that status for me. This critique of his work is thus deliberately self-reflective. It can't be otherwise. This both complicates and enriches this review.

As a twenty-two year old student of literature, I had the idea that accounting might best be viewed as a literary discourse, with all the trappings of constructing human experience in meaningful ways that we typically attribute to great narratives. Unbeknownst to me, Carl Devine was one of the few persons in accounting who might be enthusiastically open to such a view. I was fortunate to find him. Since then, countless hours of dialogue have ensued; and, without that experience, my romance with accounting would have been short lived. Like the man himself, the texts of Devine's essays stand as a monument of reflection on the expansiveness of visions of accounting, and they are to be read as precisely that — an attempt to keep options open, to proliferate rather than to close discourse.

Devine's work is massive in two ways. Name any issue in accounting or in twentieth century intellectual history; it's in the text. Devine is a bookworm, a Renaissance scholar. But he is not ascetic. Knowledge, for him, must be cast into the experience of humans. His task and his joy is to take the most difficult intellectual issues and mix them with the soil of

human experience called accounting; in his words, accounting provides a way for the scholar to get dirty fingernails. This awareness that knowledge is in the service of humans rather than humans being in the service of knowledge, gives Devine's work an ever present grounding in classical American pragmatism. It is the pragmatist's themes that knit his work together. Because of the expansiveness of his work and the limits imposed on this essay, I will focus upon these themes in this review. As a caveat, however, this in no way implies that the texts are limited to these themes; a review of his work could take an infinity of approaches. The *Essays* are to be *read*, not reviewed.

TWENTIETH CENTURY THOUGHT AND REFLECTIONS ON ACCOUNTING: DEVINE AS HISTORY

The twentieth century intellectual scene has seen it all. From the earlier optimism of the "human sciences" and Comtean sociocracy (a kind of faith in science to construct the City of God), to the post 1945 concerns with alienation, despair, and the dark side of human nature, a scholar whose work spans this century is a case study in *Paradise Lost and Found*. Moving to accounting, the twentieth century condition is even more exciting because it is more compressed.

Accounting only engaged the discourse of science *after* intellectual history had entered its dark side. Carl Devine can be found in the early years dragging accounting,

kicking and screaming, into the mainstream of science with its emphasis on quantitative methods, experimentation, and design and out of the image accounting had of itself as a system of medieval book-keeping. Particularly in Volumes I and II, with their pedagogical focus on scientific thought and methodology, the historian of accounting can read a fascinating account of how novel and difficult the "education" of accounting must have been. The attempt early is to promote science as a way to expand the discourse of accounting.

Throughout the essays, the education continues. By the time one gets to Volume V, the dream is over. Like so many other disciplines, Devine begins to suspect that accounting has misunderstood science, turned its back on the difficulties that it has created for human life, and privileged itself as not one among many possible discourses in the conversation of mankind but as *THE* only credible discourse — the

language of science as, in Richard Rorty's terms — "Nature's Own Vocabulary." Ironically, Devine finds himself in a position of recognizing that his earlier assumption that science could be used to expand accounting discourse has instead been used to close off possibilities — science had converted itself from an object in the service of humans to the subject for which humans become objects. This is the single most dominant theme in intellectual thought today.

For Devine, the arrogant and imperialist discourse of "positive" accounting is the contemporary culprit. Only through complete inattention to the history and philosophy of science, could accountants reach a point at which they declare themselves "value free." No serious scientist believes that anymore, and Devine finds the situation in accounting so obscene that he relies on parody:

How is it possible for a social scientist *not* to be involved personally in any social investigation. The investigator is handicapped by being a member of a particular gender, a particular ethnic group, steeped in an educational tradition, attached to a demographical class, bound to a national or regional persuasion, conditioned by an urban or rural background — in short, by being a member of the human species (Volume 5, p. 6).

Accounting has gone full circle under Devine's wing. While accounting was *late* in embracing the methods of science, it is equally late in coming to understand their limitations. Devine prodded accounting into the embrace; he is also prodding it into recognition of the fact that science is not what we think it is but is instead one among many ways to understand Socrates' question — what does it mean to be a human being? Our early shunning of the discourse of science caused us to ignore it; our later shunning of the discourse of science causes us to worship it in decidedly dogmatic, unscientific ways. Maybe we'll learn.

THE PRE-EMINENCE OF VALUES: DECIDING WHO COUNTS

Whenever I think about Devine, I envision the many instances in which his discourse has turned to the question of values. In his terms, "The first thing an accountant has to do is decide who counts." Like D. R. Scott, Devine always recognizes that every decision the accountant makes is fraught with possibilities for justice or injustice with respect to specific groups.

It can't be avoided. Thus it makes no sense to speak of accounting in any sense as a "value-free" discipline, though the tendency to adopt a rhetoric of neutrality is rampant in academic accounting all the way from the income theorists to the empiricists. Again, Devine relies upon parody:

There is no question that everyone, including accountants, sometimes makes silly statements and gets carried away with the wrong sirens. Certainly the "just-give-me-the-facts-so-I-can-record-them attitude is among the silliest. Accountants, as representatives of a service function, must designate (implicitly or explicitly) their host groups whose objectives are to be accepted. Presumably, the objectives of accounting become a set of sub-objectives — means — that are consistent with those of the host system. (Volume 5, p. 12).

Devine is attacking the kind of imperialism, chauvinism, and arrogance that accountants have borrowed from Milton Friedman's view that either it is possible to conduct inquiry independently of values or that we all agree on values. Universities are exploding with inquiry and research into ways in which this denial of values has *created* a nightmare of existence for most of humanity. It is simply incredible, in the eyes of the contemporary university and in the eyes of Devine, that an intellectual discipline that is already in the service of elites could claim academic privilege because of its "value-freeness." Devine has always recognized the strengths and weaknesses of a discipline that places its values in market commerce; he has also always recognized the evils of denying those values. The first thing an accountant does is decide who counts. He is also responsible for the consequences of that decision.

SOME VERY IMPORTANT MISCELLANY

First, Devine shares with the pragmatists a concern for "truth" (no capital) rather than "Truth." Truth (capital T) is a proper noun, a stable, immutable condition of the universe that never changes, something that one can love with all one's heart and soul — it is sort of like a Guardian Angel, never seen, but always there to provide metaphysical comfort. It is as old as the Gods and became scholastic with the Greek idea of theoretical discourse. In accounting, Devine wages war against theorists and metaphysicians of Truth. The early battle is against the income theorists notion of "True Income" and "The Laws of Accounting." The early essays are fascinating trips

through the absurdity of grounding accounting in this Platonic theory of "Ideal Forms." The later essays are equally devastating critiques of the metaphysics of, in Popper's terms, "Methodolatry" — a belief that by adherence to certain Methods the "Truth," description of "The Way the World Is" will reveal itself — the decidedly unscientific rhetoric of "positivists" in accounting. For Devine, the income theorists and the current generation of methodolatrists are mirror images of each other.

On the other hand, truth (no capital) is a property that attaches to certain things we might say. It is for Devine and the pragmatists, something that a community finds useful to believe, and useful for definite assignable reasons that have to do with ways in which problems can be solved and life can be changed. In short, it is grounded in human values and choices. Nature ("the way the world is" or God if you prefer) is indifferent to accounting; the truth value of accounting depends solely upon its ability to help humans do more interesting things and become more interesting people. Surely, in a discipline like accounting, one whose subject matter is exclusively a construct of human values and agency, the quest for "Truth" is an intellectual absurdity.

There are two other important points that I would like to make salient. First, Devine is fascinated with the role of language in constructing knowledge and meaning, and draws upon the early work in semiotics and what it might have to say to accountants. What he could not have foreseen is the way in which semiotics has been expanded to the point that, currently, the history of ideas is firmly grounded in the overriding importance of language in the construction of meaning. Contemporary work in hermeneutics, structuralism, and poststructuralism that is sweeping the human sciences is beginning to surface in accounting. This work owes a debt to Devine for being the first scholar to position accounting firmly in the domain of language.

The second point I wish to highlight is Devine's view of accounting as a behavioral science and how his view has been all too easily converted into a belief that certain "methods" associated with "behavioral research" are the limit of what he had in mind. For Devine, describing accounting as a behavioral science is a way to establish that the meaning of accounting is grounded in human agency. It is another way to let truth take precedence over Truth and human values take their rightful place at the origins of accounting. To say that accounting is a

behavioural science is simply to say that it is a malleable, invented discourse that humans construct and change in ways that facilitate human agency. Accounting is one of those mechanisms through which humans talk their way into the meanings that they create for their lives. If Devine had written today, he would choose the term "hermeneutical" rather than "behavioral," a term that is beginning to surface throughout the human sciences and which calls attention to the fact that disciplines like accounting are *constructions* of meaning, not "behavioral" responses to a meaning that is already present.

CONCLUSION

Devine's essays demand reading, not review. Further, they demand an intellectually informed reading. The footnotes themselves are tremendous journeys through intellectual history, and the textual concentration on accounting requires an understanding of the broader issues addressed in the footnotes. But for those who *want* to move accounting and their own academic practice onto solid intellectual ground, Devine is invaluable. For my part, these texts are sacred.

BOOK REVIEWS:

Hall, William D. *Accounting and Auditing: Thoughts on Forty Years in Practice and Education*. Arthur Andersen & Co., © 1987
(A single complimentary copy can be obtained from the Chicago office of Arthur Andersen & Co.)

by Robert J. Kirsch
Bowling Green State University

William D. Hall, retired Arthur Andersen partner, has written a short (81 pages), timely, thought provoking book sure to be of interest to accounting practitioners, educators, and students. Hall's forty-plus years of professional experience are tapped to draw comparisons between the profession's immediate post-World War II past and its present and to present pithy insights into current areas of concern to accountants.

The book consists of thirteen brief essays. Topics covered include: the past and present of public accounting, the characteristics of an effective auditor, the education of an accountant, the form and substance of professional ethics, specialization, the relation of practice to theory, rules versus judgement, the need for a usable conceptual framework, ownership of the financial statements, professional self-regulation, the scope of practice, and the impact of litigation on auditing practice.

While it is not possible within the confines of this critique to discuss Hall's thinking on this diverse list of topics, it may be possible to capture some of the flavor of this delightfully well-written series of essays.

In his essay, "The Education of an Accountant," Hall points out the need for accountants to obtain a broader education, not merely in their narrow area of specialization, but also in the humanities, writing, mathematics and economics. Many an accountant has a highly focused education resulting in a "pinched outlook" which often "handicaps" his/her performance. "It restricts his vision, it hampers his reasoning. More subtly, it may limit his relationship with clients and others in the business community, where an increasing number of leaders are concerning themselves with societal issues." (p. 16)

Accountants and business people, in general, must become better writers as business is now "paying the price for focusing too long on technical proficiency alone." Accountants and auditors should remember the time and effort consumer product manufacturers spend on packaging and recognize that they "package their (own) products in (accounting) reports."

Insufficient economic knowledge of exchange rates, interest rates, financing techniques and financial instruments could cause the accountant to "fail to understand the significance of a transaction and . . . have difficulty in discussing it intelligently with client executives." (p. 18)

Concerning adequate knowledge of mathematics and statistics, Hall notes that accountants must understand the concepts underlying actuarial determination. "Present-value calculations cannot remain a mystery." The auditor must be conversant with statistical concepts and techniques, such as the laws of probability, validity of samples, and sampling techniques.

In his, perhaps, most controversial essay, "Accounting's Urgent Need: A Usable Conceptual Framework," Hall observes that fear of the direction Financial Accounting Standards Board objectives may lead has "slowed the progress" of the conceptual framework development. Far from regarding such objectives as "impossible, unnecessary or threatening", Hall sees them as a vehicle to "give a sense of order — the direction and priorities — required for gradually bringing practice closer to the objectives." (p. 45) Central to the notion of objectives is Hall's answer to the question about what they should be. They should be "based on value." Value to investors is the present value of future cash flows from their investments.

It follows . . . that the objective of financial statements should be concerned with communicating information regarding the values of economic resources of an enterprise, the claims against those resources and changes in those resources and claims. (p. 46)

Hall argues that such an overall objective would work and is needed. "To adopt and begin implementing the value objective would not be traumatic." But it would require a change in the mindset of most business executives and accountants away from "an excessive preoccupation with objectivity . . . They would be parted from their security blanket — historical cost."

Hall sees the development of a sound conceptual framework, based on users' needs, within which orderly change could take place as preferable to continuing to repair the historical cost model which "will eventually fall of its own weight." (p. 49) Such observations are sure to cause many an accountant's eyebrows to be raised. It is also worth noting that Hall does not discuss the problems inherent in value accounting, such as determining fair market value of plant assets at the

balance sheet date, or adjusting the present values of liabilities for interest rate fluctuations.

Nevertheless, in a concentrated printed space, in a thought provoking and constructively critical way, Hall manages to address diverse current accounting issues. He recognizes that much change has occurred in the size, scope, and complexity of the profession (read: public accounting, as Hall does not touch upon other accounting areas, except education). Hall welcomes most of the changes, but he also notes the challenges and opportunities which they represent.

The format of the book, a collection of essays, results in a minimal amount of repetition. However, that does not detract from the merit of the work. Well written, lucid, easy reading, the book can be perused in an evening or two and serve as a thought provoker for years.

H. Thomas Johnson, *A New Approach to Management Accounting History* (New York: Garland Publishing, Inc., 1986, pp. 161, \$24.00).

by Joseph R. Razek
University of New Orleans

Before 1970, the prevailing view of management accounting history, as articulated by S. Paul Gardner, A. C. Littleton and Sidney Polard, was that (1) management accounting originated because of the need to value inventories at cost and (2) management accounting, as we know it today, did not develop until the late nineteenth century, when the fixed costs of many industrial concerns became large enough to necessitate considerable attention to accounting allocation procedures. As a result, accounting historians often slighted the internal accounting practices of early business organizations. They tended to believe that since management accounting was merely a peripheral result of the financial reporting process and since accounting was a technical process, which could be studied exclusively in terms of itself, the only sources that they really needed to consult were the published works of accountants.

In his extensive research into the history of management accounting, Professor Johnson has uncovered evidence that refutes the above assumptions. He has found that fully integrated cost accounting systems were in use prior to the 1860's and that by the second decade of the present century, almost

all of the internal accounting practices taught in today's management accounting courses were employed by many organizations. He has also demonstrated that early management accounting practices developed in order to provide information for the use of managers, rather than just to value inventories. For this contribution to our knowledge of accounting history, Professor Johnson was awarded the prestigious hourglass award in 1981.

This volume is divided into two sections. The first contains reprints of three articles written by Professor Johnson which are, in essence, case studies of three firms operating between the 1850's and the 1920's. These studies successfully trace the development of the internal accounting practices used by most of today's industrial concerns.

The first article discusses the accounting records used by a New England textile firm, Lyman Mills, in the 1850's. In this study, Professor Johnson shows that a "modern" cost accounting system was in use at this time. He concludes that the system was used to facilitate the control of internal plant operations, rather than to "evaluate production decisions or to determine the costs and benefits of technological innovations" (p. 12).

In the second article, Professor Johnson demonstrates how the formation of large, integrated industrial firms at the end of the nineteenth and the beginning of the twentieth centuries encouraged the introduction of innovative accounting practices. He does this by means of an examination of how the Dupont Powder Company used its centralized management accounting system, in the early part of this century, to help it plan its long-term development and avoid the internal inefficiencies that sometimes accompany large size.

In the third article, Professor Johnson discusses the development of the management accounting techniques that developed in order to provide both the divisional and the top management of multidivisional organizations data with which to evaluate individual managers' performance, company-wide performance and future company policy. His primary focus is the development of these techniques at General Motors, in the 1920's, and "the results obtained with them in practice and their alleged shortcomings . . ." (p. 36).

The second section contains reprints of six articles and papers which interpret the case studies in the first section and examine the views put forth by several accounting historians, as well as scholars in other related fields, as to the role of

historical research and research methods in the area of management accounting. Of particular interest to this reviewer was the paper titled "The Search for Gain in Markets and Firms: A Review of the Historical Emergence of Management Accounting Systems," in which Professor Johnson explores the organizational conditions underlying the emergence of management accounting and how, through certain organizational processes, management accounting affects society.

This volume has a number of uses, both in and out of the classroom. For a course in accounting history, it forms the basis of a module on management accounting. It can also be used in an advanced or graduate-level course in managerial accounting to provide historical background and an understanding of how the various management accounting techniques developed, as well as to demonstrate how the examination of a particular organization can be used as a research tool. Finally, it can (and should) be used as a personal reference by persons undertaking research projects in accounting history, as well as those just interested in the development of accounting thought.

Robert Shaplen, *Kreuger: Genius and Swindler* (New York: Alfred A. Knopf, 1960. Reprint edition, New York: Garland Publishing, Inc., 1986, 262 pp. \$40.00).

by Dale L. Flesher
University of Mississippi

Unlike most of the books published in the Garland "Accounting Thought and Practice Through the Years" series, this is not a reprint of an old accounting book. Instead, this volume — a biography — essentially outlines the dangers of a lack of uniformity in financial reporting. Ivar Kreuger, originally a Swedish match manufacturer and later an alleged international financial genius, was a living legend in the 1920s. He raised money in rich countries and lent vast sums to governments in need of capital following World War I. Kreuger's companies benefited from this scheme in that he obtained legal match monopolies in exchange for the loans. He raised so much capital that the securities of his companies were the most widely held in the world by the late 1920s. In fact, Kreuger was viewed in almost a saint-like manner for two reasons. First, the securities of his companies traditionally paid such high dividends that even small investors could quickly get rich by

buying into new issues. Second, the money that was lent to war-ravaged governments was used for such humanitarian purposes that many a life and many a regime were saved.

Unfortunately, it was mostly a pyramid scheme. Despite some legitimate businesses and legitimate loans, Kreuger was primarily engaged in using money from new investors to pay dividends to previous investors. Kreuger advocated a financial reporting policy based on secrecy. He argued that investors need know nothing more than a company's dividend policy. Anything more could be used to a company's detriment by competitors. Consequently, there were no financial statements and no audits.

Although such a grand scheme was destined to be uncovered, the actual fall of Kreuger's empire was hastened by the coming of the Great Depression. By 1932, it became exceedingly difficult to find new investors to put up the funds necessary to pay dividends on old securities. Seeing the end, Ivar Kreuger took his own life in March, 1932. The book gives much credit to the CPA firm of Ernst & Ernst in bringing on Kreuger's suicide. Price Waterhouse performed the investigation for bankruptcy purposes, which was not a simple task given that there were over 400 subsidiary corporations and that claims filed exceed \$1 billion (and that was when a billion dollars was a lot of money). No larger fraud has ever been perpetrated.

The author devoted several years of research to this project including the conducting of many interviews both in the U.S. and Europe. As to qualifications, the author is beyond reproach. Prior to getting involved in the Kreuger project, Shaplen had conducted a lengthy study and written many articles on Philip Musica and the McKesson and Robbins case. It was his fascination with accounting swindles that prompted the investigation into the greatest swindle of all time — that by Kreuger.

In summary, this is a fascinating book that can be enjoyed by both accountants and the general reader. Kreuger played a large role in the development of mandatory financial reporting as we know it today.

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DOCTORAL RESEARCH

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From Conflict to Consensus: The American Institute of Accountants and the Professionalization of Public Accountancy, 1886-1940 (The John Hopkins University, 1985) by Paul Joseph Miranti, Jr.

"From Conflict to Consensus" is an ambitious work, examining the shaping of the American public accounting profession over the course of half a century through the prisms of four different schools of historical analysis. It addresses two broad research questions: what the experience of the American Institute of Accountants (AIA), and its predecessor organization the American Association of Public Accountants (AAPA), can disclose about the nature of the new American society which surfaced in the last quarter of the nineteenth century; and how an organizational structure and program for the public accounting profession was successfully developed by the AIA leadership.

The thesis is organized into four major parts in chronological progression, each with its own synthesizing summary. The first, "Seed Time for a Profession, 1886-1906", describes the fledgling profession's long gestation and infancy, covering the competition in New York for professional power, and the eventual merger of the American Association of Professional Accountants (AAPA) and the Federation of State Societies of Public Accountants in the United States of America. Part II, "The Greening of the New Profession, 1906-1916", covers events in the decade of adolescence: how professional roles were defined, authority built up, and crisis over ruling influence in the profession confronted yet again. The third part, "The False Blossom, 1916-1929", takes up the challenges and issues the accounting community had to deal with in interpreting moral dimensions and setting competency demarcations. "The Mature Harvest, 1929-1940" brings us to the profession's coming of age with the creation of the AIA, the catalytic impact of the Securities Acts of 1933 and 1934 on professional unification, and the budding of consensus which ensued.

In his first chapter, Miranti identified the four different

sets of historical interpretation whose assumptions he tested as: Progressive, New Left, Managerial-Technological, and Corporate Liberal. Summarized very briefly, progressive reformers perceived the major political and social reform movements of the past century as essentially resulting from struggles between liberals and conservatives. This competition finally brought on the successful establishment of a liberal state, with the New Deal, to protect American society from "corrupt business and political interests". The New Left, on the other hand, had a completely opposite view of the picture, seeing the conservatives as the ultimate victors. The liberal reforms, it is posited, really came about through concessions made to protect conservative business interests in a new corporate state. Those in the managerial-technological school emphasize the importance of the role played by technical skill in efficiently using America's resources to produce past economic success, and which offer great growth potential for the future. The corporate liberal school offers yet another interpretation by focusing on inter-relationships between business organizations, political groups, and governmental institutions. In its view, change in our modern society has resulted from compromise and accommodation between these main competing interests, rather than from triumphs of victors over the vanquished.

Miranti's argument for choosing the development of the public accounting profession as the object of focus in evaluating these differing sets of analyses is that public accountants were one of the new and diverse types of knowledge specialists who appeared on the American scene during the late 1880s. Over the decades, these specialists grew in status to become interest groups, playing a major role in American life and in shaping public policy. Little research attention has, however, been directed towards placing these knowledge specialist interest groups in the context of major schools of historical interpretation.

What could have been predicted from historical interpretations? According to the progressives, the new knowledge specialists would naturally line up with the liberal reformers because they shared common aims of efficiency, progress, and "civic virtue". Miranti's findings, on the contrary, suggest that while the public accounting profession grew apace with reform movements, its primary concern lay in securing the interests of its own special skills. In this aim, it formed alliances, as and when needed, across the political spectrum. Miranti also questions the applicability of the thinking of the New Left. In the public accounting profession's experience, political action

came about through competitive struggles pitched between business rivals and had little, if anything, to do with horizontal class splits from the European tradition. The closest accord seems to lie with the corporate liberal historians. Factions in "competing elites", as Miranti puts it (p. 324), "... were loosely united on the basis of economic, regional, ethnic, or national factors." They worked together for common objectives, forging a system of checks and balances, recognizing that the continent was too large, and the opportunities too great, for a single group to go it alone successfully.

Debts to earlier research efforts which provided ideas and assistance are generously acknowledged. Among the most frequently referenced classics in this field are those by Carey,¹ Edwards,² and Previts and Merino.³ It would be appropriate here to refer to Lubell whose Ph.D. dissertation examining organizational conflict within the public accounting profession in the 1960s was completed in 1978.⁴ In Lubell's paradigm of barriers to professionalization (1980, p. 46), internal conflict constituted a significant internal constraint to professional development, as illustrated in the study of relationships between the American Institute of Certified Public Accountants and the National Society of Public Accountants. This paradigm would also seem to hold for Miranti's work.

With his "From Conflict to Consensus" Miranti makes at least two significant contributions to the accounting history literature. By expanding the variety of possible historical interpretations, he has given us a very interesting account of how the accounting profession in the United States developed as it did, and advanced some ideas as to why it developed as it did. One could wish for less unobtrusiveness in references to the research methodology employed but it is still not fashionable in historiography to throw light on this area. The account is much richer for the language and the writing style which add to the pleasure for the reader.

REFERENCES

¹Carey, John L. *The Rise of the Accounting Profession: From Technicians to Professionals*. Vol. 1 New York: American Institute of Certified Public Accountants, 1969.

_____, *The Rise of the Accounting Profession: To Responsibility and Authority*. Vol. 2, New York: American Institute of Certified Public Accountants, 1970.

²Edwards, James Don. *History of Public Accounting in the United States*. East Lansing, Michigan: Bureau of Business and Economic Research, Michigan State University, 1965.

³Previts, Gary John and Barbara Dubois Merino. *A History of Accounting in America: An Historical Interpretation of the Historical Significance of Accounting*. New York: John Wiley, 1979.

⁴Lubell, Myron Samuel. *The Significance of Organizational Conflict on the Legislative Evolution of the Accounting Profession in the United States*. New York: Arno Press, 1980.

Announcement

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CONTENTS

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Usefulness of CCA Information for Investor Decision Making: A Laboratory Experiment	Keith Duncan Ken Moores
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CONTEMPORARY Vol. 4/No. 2/Spring/printemps 1988
 ACCOUNTING
 RESEARCH / RECHERCHE
 COMPTABLE
 CONTEMPORAINE

Contents

Articles

Good Judgment in Public Accounting: Quality and Justification	287
..... C. EMBRY and M. GIBBINS	
On Sample Size Allocation in Auditing	314
..... U. MENZEFRIKKE and W. SMIELIAUSKAS	
A Hierarchical Approach to the External Auditor's Evaluation of the Internal Auditing Function	337
..... W. F. MESSIER, JR. and A. SCHNEIDER	
Economic Effects of a Mandated Audit In a Contingent-Claims Production Economy	354
..... W. R. SCOTT	
Discussion of "Economic Effects of a Mandated Audit in a Contingent-Claims Production Economy"	389
..... M. PENNO	
An Experimental Study of the Effects of Elicitation Methods on Review of Preliminary Audit Strategy by External Affairs	392
..... J. E. BORITZ, B. G. GABER and W. M. LEMON	
Discussion of "An Experimental Study of the Effects of Elicitation Methods on Review of Preliminary Audit Strategy by External Auditors"	412
..... M. GIBBINS	
Attestation Research Opportunities: 1987	416
..... W. R. KINNEY, JR.	
L'attestation: avenues de recherche, 1987	426
..... W. R. KINNEY, JR.	
Firm Size and the Information Content of Annual Earnings Announcements	438
..... B. T. RO	
On Interim Information and the Information Content of Firm Earnings: A State Variable Approach	450
..... A. DONTOH and G. RICHARDSON	
Discussion of "On Interim Information and the Information Content of Firm Earnings: A State Variable Approach"	470
..... D. B. THORNTON	
A Comparative Examination of the Time-Series Properties and Predictive Ability of Annual Historical Cost and General Price Level Adjusted Earnings	485
..... J. C. McKEOWN and H. SHALCHI	
Discussion of "A Comparative Examination of the Time-Series Properties and Predictive Ability of Annual Historical Cost and General Price Level Adjusted Earnings"	508
..... W. R. LANDSMAN	
Discussion of "A Comparative Examination of the Time-Series Properties and Predictive Ability of Annual Historical Cost and General Price Level Adjusted Earnings"	513
..... J. A. OHLSON	
Implementable Equilibria in Accounting Contexts: An Exploratory Study	515
..... A. H. AMERSHI and P. CHENG	
Discussion of "Implementable Equilibria in Accounting Contexts: An Exploratory Study"	564
..... R. A. DYE	
An Empirical Analysis of the Expenditure Budget in Research and Development	568
..... H. O. ROCKNESS and M. D. SHIELDS	
Discussion of "An Empirical Analysis of the Expenditure Budget in Research and Development"	582
..... J. G. BIRNBERG	
Discussion of "An Empirical Analysis of the Expenditure Budget in Research and Development"	588
..... J. H. WATERHOUSE	
The Effect of Unfunded Accumulated and Projected Pension Obligations on Governmental Borrowing Costs	595
..... B. R. MARKS and K. K. RAMAN	
Comment on: "Distinguishing the Two Forms of the Constant Percentage Learning Curve Model"	609
..... A. W. RICHARDSON	
Distinguishing the Two Forms of the Constant Percentage Learning Curve Model: A Reply	615
..... J. T. CHEN and R. P. MANES	

Book Reviews/Compte rendu delivres

P. W. Bell, <i>Current Cost/Constant Dollar Accounting and Its Uses in the Managerial Decision Making Process</i>	R. THAKKAR	617
L. D. Brown, <i>The Modern Theory of Financial Reporting</i>	R. V. MATTESSICH	620
J. E. Butterworth and H. Falk, <i>Financial Reporting – Theory and Application to the Oil and Gas Industry in Canada</i>	A. A. ATKINSON	630
V. Salyzyn, <i>Canadian Income Tax Policy: An Economic Evaluation</i>	H. A. KENNEDY	638

Manuscripts Accepted for Future Publication

Book Reviews Scheduled for Future Publication

AD HOC Reviewers 1987/1988

CONSULTING REFEREES

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