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1. Manuscripts should provide a clear specification of the research issue, problem and/or hypothesis being addressed, an explanation of the derivation of the issue, and a plan to address these.

2. Authors should develop a statement about the method employed in the research, including a full indication of the extent and the manner in which the methodology is used and the degree to which the research plan is achieved by means of the method. Such a statement should include a specification of the original materials or data collected or employed and a statement of the rationale employed in selecting the source material(s). A description of the evidential data used in conducting the final phases of the evaluation should be clearly stated.

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1991 Vangermeersch Manuscript Award

Anne Fortin
UNIVERSITY OF QUEBEC IN MONTREAL

THE 1947 FRENCH ACCOUNTING PLAN:
ORIGINS AND INFLUENCES ON
SUBSEQUENT PRACTICE

Abstract: The first official French Accounting Plan, adopted in 1947, had a marked influence in several countries. Its impact can still be felt today and many of its features have been retained in the 1982 French Accounting Plan. The article highlights the economic, political and accounting influences on the development of the 1947 Plan. The main characteristics of the Plan are also described. After presenting an overview of the events that marked the evolution of French accounting subsequent to the adoption of the 1947 Plan, the paper concludes with a comparison of the 1947 Plan with the latest French Plan (1982).

The 1947 French Accounting Plan, later revised in 1957, had a marked influence in several European, Asian and African countries (Greece, Turkey, Tunisia, for example). Its impact is pervasive today through the model financial statements of the European Fourth Directive adopted in 1978. What were the forces that led to the development of the 1947 Accounting Plan? What were the sources on which its development was based? What were the strong elements of the Plan that gave it its usefulness and led to its widespread adoption? These are important and basic questions that need to be answered to understand more fully the present state of accounting in the many parts of the world that have been influenced by French standardized accounting, and to understand why it had so much influence.

After considering the methodology used in the study, the paper will address, in turn, the aforementioned research questions. An overview of the events that marked the French Accounting Plan's history subsequent to the adoption of its first official version of 1947 will follow. The paper then proceeds to highlight the pervasive features of the 1947 Accounting Plan that have been retained in the latest revised version of the Plan, that of 1982. The conclusion recapitulates the landmarks of French accounting history since 1940.
RESEARCH METHODOLOGY

The research approach used in this study involved library re-
search to obtain the following type of data: evidence on social,
cultural, political, and economic factors in the relevant time peri-
ods; pertinent laws and decrees affecting accounting; rulings and
decisions from accounting normalization bodies. Primary and sec-
secondary types of evidence were reviewed, including contemporary
records and reports, government documents and compilations,
and expressions of opinions, such as books.

Essentially, the necessary literature was obtained at the li-
brary of the Conseil National de la Comptabilité and the library of
the Ordre des Experts Comptables et des Comptables Agréés.

The research process was one of abstraction and analysis of
the factors which influenced the development of French account-
ing thought. The analysis included such steps as the determination
of actual events that have happened and their sequence, and an
identification of interrelationships among those events together
with inferences about possible explanations.

FORCES THAT LED TO THE DEVELOPMENT
OF THE 1947 ACCOUNTING PLAN

On August 31, 1944, after the liberation of Paris by the Allies,
De Gaulle’s interim government moved from London to the
French capital. The war had left a devastated country with dimin-
ished productivity in both the agricultural and industrial sectors.
Faced with an enormous task of reconstruction, De Gaulle’s gov-
ernment initiated a number of economic and social measures: com-
panies in key sectors of the economy were nationalized; a five-
year economic plan for modernization and equipment was
launched; revaluation of assets was permitted; and social security
was extended. Nationalizations and economic planning were the
driving forces that spurred the development of the 1947 Account-
ing Plan.

Nationalizations

In the post-war period, the general sentiment shared by the
resistance organizations, the three major political parties (the
Communists, PC; the Socialists, SFIO; and the Christian Socialists,
MRP), and the leading trade unions was that nationalization of key sectors of the economy would allow for a structured reform of the economy and lead to a new social democratic order. Three
motives were behind the nationalization movement: distrust of private companies, the urgent need for economic reconstruction, and the desire for improved labor conditions [Baum, 1958, pp. 175-177].

In the immediate post-war period, the first companies to be nationalized were the coal mines of the North and Calais regions, which badly needed structural reforms to play their role in the recovery of French industry. The next companies nationalized were, among others, the Renault manufacturing plants, the Gnôme and Rhône motor company and Air France. After the November 1945 election, the first Constituent Assembly continued the nationalization program with the Bank of France and the four largest credit institutions; gas and electrical utilities; and thirty-four major insurance companies.

After May 1946, there was a virtual halt in the nationalization movement. The constitution of the Fourth Republic, adopted in October 1946, recognized and retroactively defined nationalization in the following terms:

"any good or any company whose operations have or acquire the characteristics of a national public service, or of a de facto monopoly, must become the property of the collectivity" [Chenot, 1977, p. 22].

There is no doubt that the nationalization of so many companies in such a short time was a determining factor in the creation in April 1946 of a committee to study accounting normalization (Commission de Normalisation des Comptabilités). The government needed to put some order into the disparate accounting of nationalized enterprises if it was to manage and control them adequately. What could be a better way to meet this objective than a uniform accounting plan? The fact that nationalized companies and the companies in which the state had an interest were the first to have the plan applied to them underlines the key role played by nationalization in the standardization of French accounting.

In time, the government's objective was to extend the application of the plan to private industry so that everyone could benefit from the enhanced comparability of accounting information.

Economic Planning: The Modernization and Equipment Plan

War destruction and appropriations by the occupying forces had left France in poor economic condition. In 1945, agricultural
and industrial production levels were respectively at two-thirds and one-half of their pre-war levels.

In the early post-war period, Jean Monnet, who had been a wartime member of the first French committee for national liberation, convinced De Gaulle of the necessity for an organized and planned development of the economy. Monnet believed that the strength of a country rested on its productive capacity. In this area, France lagged behind other industrialized countries due to the lack of innovative spirit which, in the past, had brought insufficient investment in productive and modernized equipment.

To restore and improve upon France's pre-war productivity, the country's productive structure needed to be rebuilt and modernized; this was the objective of Monnet's five-year economic plan. Emphasis was put on the key sectors of the economy: coal, electricity, cement, steel, transportation and agricultural equipment, some of which the government already controlled through nationalization.

The plan was prepared from scarce data; no set of national accounts was available. However, economic planning spurred the development of national accounting by drawing attention to its importance both in the elaboration of the plan and in the assessment of its realization, concurrently demonstrating a need for more sophisticated and more plentiful statistics. It was probably to meet this need that the National Institute of Statistics (l'Institut National de la Statistique et des Etudes Economiques, INSEE) was created in April 1946. It was also to meet the need for comparable and reliable data for statistical and national accounting purposes that the 1946 Committee for the Normalization of Accounting (Commission de Normalisation des Comptabilités) was created. In fact, the committee had a section whose mandate was to study the normalization of accounts for national accounting purposes.

THE SOURCES OF THE 1947 ACCOUNTING PLAN

Two major sources inspired the characteristics and structure of the 1947 Accounting Plan, namely the 1942 Accounting Plan and the Plan of the National Committee of the French Organization (Comité National de l'Organisation Française, CNOF) [Brunet, 1951, p. 168]. The influence came through individuals who had worked on the respective committees that developed these two plans, and who were later appointed to the 1946 Committee for the Normalization of Accounting. What were these plans, why were they elaborated and what were their respective contributions
The 1942 Accounting Plan

Developed during World War II, the 1942 Accounting Plan was the product of an Accounting Plan Committee (*Commission Interministérielle du Plan Comptable*) instituted by an April 1941 Decree. The plan's objectives were stated as follows by Detoeuf [1941, pp. 9-12], vice-president of the committee:

1. To allow the determination of assets, capital, profits and product costs at both the company and the industry level;
2. To make it possible to calculate industry-wide average costs for certain product types for government price control purposes;
3. To decrease the possibilities of deceiving tax authorities by increasing the clarity of accounts;
4. To help the government to avoid making mistakes in its tax and economic policies by normalizing accounting for each industry.

As can be seen from these objectives, the motivation behind the 1942 Plan was government control of firms and prices. This comes as no surprise since the plan was drawn up during the war, at a time when *dirigisme*, or the planned economy, was very strong. Although accounting normalization was considered useful for company management, this objective was not among the driving forces that led to the development of the 1942 Accounting Plan.

Contents of the Plan. To meet its expressed objectives, the 1942 Plan contained a chart of accounts, terminology, valuation rules, financial statement models — a balance sheet, a trading account and a profit and loss account — as well as a method for computing product costs [Brunet, 1951, p. 250].

The headings of the ten categories of the chart of accounts are the following [Fourastié, 1943, pp. 171-179]:

0. Capital and investments
1. Financial accounts
2. Regularizations and encumbrance accounts
3. Inventory and purchase accounts
4. Expenditures classified by type
5. Allocation accounts
6. Charges by sections
7. Product costs
8. Sales and other revenues
9. Profit and loss accounts and results of operations

In fact, there were two charts of accounts: a complete one with ten classes for companies which used cost accounting, and a simplified one without the cost accounting classes (numbers 5, 6 and 7) for others. Due to the integration of cost accounting into the accounting chart, there had to be two formats for the trading account and two for the profit and loss account: one set of statements classifying expenses by destination (functions) for companies using the cost accounting classes, and another classifying expenses by nature for companies which did not use these classes.

The 1942 French Plan was developed on the basis of a document prepared by Chezleprêtre, a Vichy government senior civil servant within the Ministère de l'Économie Nationale et des Finances, who had been trained as a statistician [Standish, 1990, p. 346]. Chezleprêtre had probably drawn up his Plan using the 1937 Goering Plan as a starting point since it had the only official chart of accounts in use at the time. In fact, there are similarities between the German and the 1942 French charts.

In both the German and French charts, cost accounting was integrated with financial accounting. This arrangement of accounts reflected Schmalenbach's conception, in which the chart of accounts follows the cycle of manufacturing activity: first, capital is raised and invested in fixed and current assets; then, materials are purchased and processed to create products that are sold; and lastly, all accounting elements are assembled in class 9 for the periodic closing of the books.

However, even if the German and the 1942 French charts of accounts were similar, the French influence had impact in two areas of the 1942 Plan: product costing and the standard balance sheet. The resulting characteristics were later retained in the 1947 Plan.

First the latest innovations in French cost accounting were embodied in the 1942 Plan. The homogeneous sections method, developed and defined by Lieutenant-Colonel Rimailho in a 1928 pamphlet under the aegis of the Commission Générale d'Organisation Scientifique du Travail (C.E.G.O.S.), was to be used in computing product costs. This method was concerned with the allocation of indirect charges to product costs. These charges were to be accumulated in various accounting units or sections (such as a division of the enterprise or a specific activity like distribution). Then, section costs were charged to product costs using a chosen work unit (unité d'oeuvre) as basis of allocation (such as kilome-
ters or direct labor hours). This method allowed cost prices to be determined at each successive stage of the production process. The addition of the charges incurred at one level of production to the previous charges provided the cost of the product at that particular production level. However, since the method did not provide the original breakdown of the various cost components, components had to be recomputed on a separate schedule. The homogeneous sections method was adopted in the plan for cost computations because it allowed precise calculations, and afforded great possibilities of application to various situations.

Another characteristic related to product costing introduced in the French Plan was the use of mirror or contra-accounts which allowed product costs to be computed without altering expense accounts. In fact, charges were debited to the appropriate cost accounts by crediting contra-accounts, which preserved the information registered in financial accounting's expense accounts while ensuring the identity of the information carried from financial accounts to cost accounts.

Second, the rational classification (discussed in the next section) which had developed in France in the 1920s [CNOF, 1946, p. 46] and which, by the 1940s, had been widely adopted by the majority of French enterprises for their balance sheets [CNOF, 1946, p. 23] inspired the 1942 Plan's standard balance sheet. However, the rational classification was not retained for the 1942 Plan's chart of accounts since it was inspired by the German chart.

The 1942 Plan was mainly criticized for its lack of logic and its complexity, and for being overly oriented toward the determination of financial results for external purposes, and of product costs for internal and external pricing of products. Not enough attention was paid to the role of accounting in the daily management of operations [Brunet, 1951, pp. 252-253].

The other major criticism addressed to the Plan concerned the duality of the operations account and the profit and loss account, stemming from the possibility of classifying expenses either by nature or by function depending on whether the cost classes (5, 6 and 7) were used or not. This situation deprived national accountants of valuable information needed in the preparation of national accounts [Brunet, 1951, p. 252]. As will be seen in a later section, this criticism was taken into account in the drafting of the 1947 Plan.

An official adaptation of the 1942 Plan was only produced for the aeronautic industry. However, Brunet [1951, p. 254] mentions that a number of major companies also adopted the general plan,
The plan allowed users to discover its weaknesses, and the experience they gained was valuable for the 1946 accounting normalization committee.

The Plan of the National Committee of French Organization

The National Committee of French Organization (CNOF) was an association of individuals from various professions who were interested in the organization of work in general. In 1928, Gabriel Faure, who in fact had been the first author to offer a modern decimal accounting chart in 1909, formed the CNOF’s accounting section, whose major concern was normalizing the balance sheet.

In July 1942, the CNOF’s accounting section was invited by the CNOF council to study the plan prepared by the 1941 Accounting Plan Committee. Upon examination, the 1942 Plan was found to be too complex and technically difficult to apply to the large industrial companies for which it had been primarily conceived. Its classification was believed to be too empirical, without reflecting any particular order or method. To make a positive contribution to the advancement of accounting, the accounting section then devoted its efforts to the rationalization of current French practice; by 1944, the section had published a rational plan for the organization of accounts. Eminent French accountants participated in the deliberations of the section: Garnier, Brunet, Anthonioz, Demonet, Fourastié and others, all of whom later helped in the drafting of the 1947 Plan, carrying over ideas that they had applied in the CNOF Plan.

The objectives set by the authors of the rational plan were the classification, codification and articulation of accounts. No definitions were provided in their plan, since the authors believed that there were enough excellent definitions in current practice. Nor was there any new method given for computing product costs. The plan provided a structure for making and registering the desired computations, but confined them to a particular set of accounts. Their correspondence with, and complete independence from, financial accounting were ensured by the use of contra-accounts (imputation accounts). Any cost accounting method could be used in conjunction with the plan.

The CNOF’s Rational Plan. The proposed plan presented three double-entry systems, each containing two ordres. Each ordre classified events or accounting elements from a different perspective. The summation of all the accounts of any ordre provided the re-
suits of operations. The *ordres* were linked together either by double-entry or by the use of contra-accounts. The plan's double-entry systems were as follows [CNOF, 1946]:

- **Financial accounting**
  - *Ordre 1* — Operating accounts
    - (revenues and expenses)
    - (accounting elements seen as causes)
  - *Ordre 2* — Balance sheet accounts
    - (assets and liabilities)
    - (effect of transactions on the company's position)

- **Managerial accounting**
  - *Ordre 3* — Cost accounts and sales accounts (transactions classified as to purpose)
  - *Ordre 4* — Imputation or contra-accounts

- **Budgetary accounting**
  - *Ordre 5* — Budgeted operations
  - *Ordre 6* — Budgeted liquidities

*Ordre* 7 and 8 were left open, in case other accounting systems were developed in the future. *Ordre* 9 was devoted to commitments and transitory accounts, such as purchases and sales in cash, and internal transfers. In financial statements, transitory accounts were to be replaced by the *ordre* to which they were related (1 or 2), and commitments were to be listed at the end of the balance sheet.

Each *ordre* was further divided into categories, each having its own specific meaning. For example, the categories found in *ordre* 1 were charges and revenues that are included in the gross profit margin, operating charges and revenues, investment-related charges and revenues, administrative charges, miscellaneous revenues and financial charges. These categories were further grouped to provide the following summary accounts: the gross profit margin, results of operations, net revenue from investments, net administrative charges and financial charges. The classification adopted in that *ordre* was based first on the economic function of the transactions and second on their nature. Another example of the breakdown of an *ordre* into categories is provided by *ordre* 2. In the latter, assets were divided, according to their economic function in the company and their degree of liquidity, into fixed assets, investments, short-term assets (inventories and short-term investments), receivables and liquid assets (cash and cash equivalents).

*Ordre* 3 and 4 were devoted to cost accounting, constituting a
separate double-entry system. Separation of cost accounting from financial accounting was believed to be essential. The reasons that were given then for this separation seem still valid today in view of the maintenance of the same practice in the 1982 Accounting Plan. The most important justifications were the following:

1. It facilitated the establishment and further modification of the cost accounting system;
2. In cases where there were modifications in production or in the company structure, the cost accounts could be adapted without modifying the plan for financial accounting, thus preserving the inter-firm comparability of the financial information, as well as its comparability over time;
3. Charges included in product prices could differ from expenditures registered in financial accounting;
4. The use of contra-accounts allowed complete freedom in cost accounting; the transformation of data for the computation of product prices and the determination of results of operations could thus be done freely without altering the original accounts [CNOF, 1947, pp. 32-34, 99].

The CNOF Plan was very well designed; however, to preserve the recent tradition introduced by the 1942 Plan, only some of its features were retained in the 1947 Plan. The influence of the CNOF Plan and of the 1942 Plan on the 1947 Plan will be considered after introducing the latter.

THE 1947 ACCOUNTING PLAN

As the first official plan drafted after the Liberation, the 1947 Plan constituted the real beginning of accounting normalization in France. It was initially designed for industrial and commercial undertakings, but with the intention of adapting the plan to all sectors of the economy. The ultimate goal of the Committee for the Normalization of Accounting was to create a system that would allow the summation of the accounts of all economic units, thereby facilitating the preparation of national accounts.

The Committee was headed by its vice-president, Turpin, who was secretary of the Central Committee for Prices. The secretary of the Committee was Pujol, a state economic expert and former secretary of the adaptation committee for the 1942 Plan. Among the sub-committees that were formed to work on specific topics, the three most important ones were the sub-committee on principles, definitions and rules, headed by Fourastié and Lauzel; the
sub-committee on the general chart of accounts and financial statements, headed by Lemoine and Pujol; and the sub-committee on cost accounting, headed by Martin [Brunet, 1951, p. 166].

The committee had to focus on accounting in industrial and commercial businesses as the starting point of what would ultimately become a national rationalization of accounting. More specifically, the accounting system chosen had to be simple, complete and flexible enough to be applied to large companies as well as to the more numerous small and medium-sized companies. Finally, the orientation chosen by the plan’s designers was towards the determination of financial results for investors and creditors (particularly banks), and the determination of product costs for pricing purposes. Although finding a plan suitable for national accounting was not the primary goal of the committee, several measures were nonetheless adopted which stressed the economic orientation of the accounting reform. The economic concerns of the designers were reflected in the following features of the plan:

1. Classification of companies’ assets according to their economic function or location;
2. In the balance sheet, grouping of accounts into classes that reflected the accounts’ economic function: permanent capital, long-term assets, inventories, third-party accounts and financial accounts;
3. The classification of expenses by type, which provided the necessary elements for the study of the economic situation at the company, industry and national levels;
4. The production of information on company operations to complete the financial statements, such as endorsements and commitments, or to facilitate the analysis of certain elements of the balance sheet (depreciation, fixed assets, provisions).

Contents of the 1947 Plan

The plan constituted a complete set of accounting procedures, including [Veyrenc, 1950?; Retail, 1951]:
1. A definition of financial and cost accounting;
2. A chart of accounts (see Appendix) and related terminology;
3. A list of the accounts and how they interact;
4. General rules for the application of the plan;
5. Valuation rules for assets;
6. Rules for determining depreciation and provisions;
7. Models for the balance sheet, the trading account and the profit and loss account;
8. A section on cost accounting, including a description of the system adopted, terminology, rules for computing product costs, an explanation of the perpetual inventory method and the procedure for the classification of expenses into fixed and variable categories;
9. Statistical accounts necessary to analyze the company's situation and establish a national accounting system (see point 4 in the previous section).

**General Features of the 1947 Plan**

The plan offered a simple, logical and flexible structure, while introducing the most advanced cost accounting techniques of the time (the homogeneous sections method described earlier). Terminology and presentation were largely borrowed from the accounting tradition. The chart of accounts (see Appendix) classes were chosen in accordance with the two traditional objectives of financial accounting: the determination of the firm's situation and the analysis of the year's results. The plan used the decimal system to number accounts and classes of accounts. The main classes of the plan were as follows:

**Balance sheet accounts**
1. Permanent capital (capital, reserves, liabilities);
2. Fixed assets and investments;
3. Stocks;
4. Third-party accounts (receivables and payables);
5. Financial accounts (short-term loans and borrowing, short-term investments, cash);

**Operating accounts**
6. Expenses, classified by type;
7. Revenues, classified by type;
8. Profit and Loss accounts;
9. Cost accounting accounts;
10. Statistical accounts.

This structure made it easy to prepare the balance sheet which was established from the accounts of the first five classes. Unlike the 1942 Plan, the order of appearance of the accounts on the balance sheet was the same as in the chart of accounts. Accounts were first classified according to the duration of use or realizability for assets (short or long-term) and according to the
degree of payability of debts and capital. Subsequent classification of accounts depended on the physical or legal nature of the elements they represented.

The logic behind the balance sheet framework was based on the representation on an industrial and/or commercial firm with the following characteristics: productive assets having a long-term useful life and an irregular renewal pattern; long-term financing for long-term productive assets; inventories rotating rapidly in less than a one-year time period; and an operations cycle whose duration was also considered to be less than one year. This representation led to a classification of assets, debts and owners’ equity based on the one-year time period, the year being traditionally considered as the usual time frame for the accounting period. The permanent resources at the disposal of the firm, together with their investment in long-term production means, were therefore shown in the upper part of the balance sheet, with short-term assets and debts appearing below. Exhibit 1 indicates the structure of the balance sheet as it has been outlined above, as well as the

**Exhibit 1**

**Structure of the Balance Sheet: Relationships Between Classes of the Chart of Accounts and Balance Sheet Elements**

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>LIABILITIES AND EQUITY</th>
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<tr>
<td>Preliminary Expenses</td>
<td>Capital and Reserves</td>
</tr>
<tr>
<td>&gt; one year</td>
<td></td>
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<tr>
<td>Fixed Assets → Class II Permanent Assets</td>
<td></td>
</tr>
<tr>
<td>Other Long-term Assets</td>
<td></td>
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<tr>
<td>Stocks → Class III</td>
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<td>&lt; one Year</td>
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<tr>
<td>Short-term and Liquid Assets → Class IV Current Liabilities</td>
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<tr>
<td>Profit and Loss Account → Class V</td>
<td></td>
</tr>
<tr>
<td>Profit and Loss Account → Class VIII</td>
<td></td>
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<td>→ Class IV</td>
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<td>→ Class V</td>
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<td>→ Class VIII</td>
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</table>
relationship between the classes of the chart of accounts and the elements of the balance sheet.

The main categories of the balance sheet defined above were then subdivided into as many elements as needed to register the results of the various transactions that modified the patrimony of the firm. The correspondence between the nomenclature of balance sheet elements and the structure of the statement facilitated the passage from the list of accounts to the balance sheet.

The 1947 balance sheet was presented in the form of a T account, with the income or loss for the year as the credit or debit balance of that account. This provided a link between the balance sheet and the profit and loss account which was given some prominence. The following paragraphs will detail how income related operations were dealt with in the chart of accounts and financial statements.

Classes 6 and 7 of the chart were used to account for expenses and revenues. At the end of the period, the accounts were closed to account code number 80 (see Appendix) which then provided the information needed to draft the trading account. The profit and loss account was established from the information contained in account code number 87. The structure of the two statements is presented in Exhibit 2.

In the trading account, charges were classified by type, so it was impossible to determine the gross profit figure from the information provided. The plan offered an alternative presentation for these two statements, which could be used on an optional, supplementary basis: after reclassifying the charges by function, it was possible to present a trading account showing the gross profit on operations. In this alternative presentation, administrative charges appeared in the profit and loss account, rather than in the trading account. The option of presenting the trading account by function was offered in the hope of making it easier for management to analyze charges and set up a cost accounting system in companies that in the past had only been concerned with financial accounting.

The logic that prevailed in the subdivision of income accounts into two statements was based on the character of the operations which were being accounted. In the first statement, the trading account, all regular transactions that repeat themselves from period to period were grouped. The balance of this account thus provided an indication of the current performance of the firm. Next, all irregular or exceptional transactions were grouped in the second results statement, the profit and loss account. The break-
### Exhibit 2

**Structure of Income Accounts**

<table>
<thead>
<tr>
<th>TRADING ACCOUNT</th>
<th>PROFIT AND LOSS ACCOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Results Related to Operations</strong></td>
<td><strong>Exceptional (non current) Results</strong></td>
</tr>
<tr>
<td>Opening Stock</td>
<td>Operating Loss (from Trading Account)</td>
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<tr>
<td>Purchases</td>
<td>Losses Relating to Prior Years</td>
</tr>
<tr>
<td>Wages and Salaries</td>
<td>Exceptional Losses</td>
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<td>Taxes and Duties</td>
<td>Exceptional Provisions</td>
</tr>
<tr>
<td>Rent and Maintenance</td>
<td>Income Taxes</td>
</tr>
<tr>
<td>Transport and Travelling</td>
<td>Total Net Profit</td>
</tr>
<tr>
<td>Supplies</td>
<td>Total Net Profit</td>
</tr>
<tr>
<td>General Operating Expenses</td>
<td>Operating Profit (from Trading Account)</td>
</tr>
<tr>
<td>Interest and Charges</td>
<td>Profits Relating to Prior Years</td>
</tr>
<tr>
<td>Provisions for Superannuations and for Amortization</td>
<td>Exceptional Profits</td>
</tr>
<tr>
<td>Credit Balance</td>
<td>Total Net Loss</td>
</tr>
<tr>
<td>Debit Balance</td>
<td></td>
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</table>

Down between regular and irregular transactions was based on the assumption that certain types of transactions were always of an exceptional nature, whatever the type of firm involved. Transactions classified as irregular or exceptional were gains and losses on the sale of permanent assets, foreign exchange gains and losses, and profits and losses from previous periods. It must be noted that the classification by type adopted in the trading account was here replaced by a classification according to the origin of transactions.

Further classification of revenues and expenses in the trading
account was developed from an analysis of the various elements to be accounted for. The logic that prevailed in the selection of the order of presentation of charges was based on the distinction between the major economic and financial operations usually conducted by the firm. First, production operations necessitate the purchase of material, the payment of wages to employees and of taxes to the state, and the incurring of various operating expenses. Next, a category was created to register financial charges resulting from the firm's financing policy. Finally, a category was devoted to the cost of permanent productive means related to the period: depreciation of fixed assets. On the revenue side of the trading account, resources coming from the sale of production or purchased goods were shown first, since they result from the primary activity of the firm. Next, sales revenues from two secondary sources were shown in separate categories. Production by the firm of its own fixed assets, which was considered revenue since it represented a transfer of charges to the balance sheet, also appeared under a separate heading. Finally, a category was allocated to revenues from financial operations such as interest and dividends.

Aside from financial accounting provisions, the plan contained an important section on cost accounting. As mentioned earlier in the case of the CNOF Plan, to maximize both the standardization of financial accounting and the flexibility and adaptability of the cost accounting system, the plan reserved a separate class for cost accounts, number 9. Separation of cost accounting also favored the progressive introduction of cost accounting, without delaying the application of the financial accounting section of the plan. The role assigned to cost accounting by the plan was threefold, including the periodic determination of:

1. The cost of manufactured or purchased products;
2. Inventories, using the perpetual inventory method;
3. The results of operations by each branch or subdivision of the firm's activities

In the general plan, a main structure for industrial accounting was prescribed, leaving the problem of application to particular cases to company plans.

Two measures ensured the flexibility and adaptability of the plan. First of all, the use of the decimal system meant that any account could be subdivided by adding extra digits to the account number. Secondly, the free accounts left in the general plan could be used to fill specific needs.
Comparison of the 1947 Plan with the 1942 Plan and the CNOF Plan

To facilitate the adoption of the plan, the Committee for the Normalization of Accounting did not want to upset accounting traditions unduly. Since the 1942 Plan had already been introduced in some companies, it seemed natural that the committee base its work on that plan, and try to improve upon it. The committee benefited from companies' experience with the 1942 Plan, and took into account the criticisms that had been expressed of the earlier plan.

The 1947 Plan was a major advance over the 1942 Plan. First, to number the first class, the zero was dropped and replaced by the number one to facilitate the use of accounting machines. The zero was used thereafter for statistical accounts. Second, separate classes were created for fixed assets and third-party accounts (short-term receivables and payables). Third, class number 2 of the 1942 Plan, which contained the regularization and engagement accounts, was abolished, and the accounts reallocated to other classes. Fourth, purchases now appeared in class 6 instead of class 3, which was reserved for inventories, and the cumbersome accounts for purchases added to inventory were eliminated. Lastly, accounts were classified in the same order on the balance sheet and in the chart of accounts.

The separation of cost accounting from financial accounting, a feature of the CNOF Plan, was retained, together with the imputation of both expenses and revenues in the cost accounts. As in the CNOF Plan, contra-accounts were placed in the same categories as the accounts they corrected, and accounts that had the same function in the firm were designated by the same number of digits.

The rational classification used in the CNOF Plan was adopted for the balance sheet. However, the committee did not retain the classification into ordres and categories found in the CNOF Plan, since the flexibility of decimal coding was preferred. This meant that, as in the 1942 Plan, the balances of the 1947 chart's classes were meaningless.

Applicability of the 1947 Plan

The Superior Council for Accounting, created by a January 1947 decree, was to supervise the application of the 1947 Plan. The conditions under which it was to operate were to be specified
by a subsequent law. However, none of the propositions formulated concerning a possible accounting law were adopted. The government, through several decrees, simply extended the application of the plan to nationalized industrial and commercial companies, and mixed capital companies in which the government had interests (decree of October 22, 1947); government and public establishments of either an industrial or commercial nature, or of an administrative character; private companies benefiting from government subsidies or financial guarantees; private companies under administrative control (for example, farming cooperatives); companies which had revalued their assets in accordance with the June 1948 decree.

Finally, as a result of the rational conception of the plan, and due to the unsuitability of existing accounting systems in most French businesses, the plan was spontaneously adopted by several firms. This is confirmed by the fact that more than 45,000 copies of the official edition of the 1947 Plan were sold, and several private editions of the plan were also successful [CNC, 1957, p. 8].

The introduction of the plan was also facilitated by the fact that it was adopted by professional accountants, and taught in colleges and high schools.

Impact of the 1947 Plan

Favorable consequences of the 1947 Plan could be observed in several areas. First, in providing a rational organization of both financial and cost accounting, the plan provided the tools needed to improve company management — an objective of utmost importance in the post-war reconstruction period. Secondly, the introduction of uniform rules of valuation, classification, and presentation, together with the establishment of a clear terminology, facilitated inter-firm comparisons and improved the quality of the information collected for national accounting purposes. The increased homogeneity of the data collected further allowed them to be added at various levels of analysis. Finally, the classification of expenses by nature and of some assets according to their economic function in the company met the needs of national accounting.

These characteristics of the 1947 Plan made it appealing for countries looking for order in company accounts and readily available data for national accounting. Those were the reasons for the widespread influence of French accounting from the 1950s up to the present.
THE POST 1947 PLAN ERA

During the 1950s, the Higher Council of Accounting made the first revision of the 1947 Plan. The new Plan was approved in 1957. The Council mainly devoted its efforts to improving the various elements of the 1947 Plan while retaining its framework and giving the cost accounting section of the plan more flexibility. A 1962 decree required the 1957 Plan be used in the private economic sector. The 1957 Plan thus became legally binding in over eighty lines of business for which particular plans were developed. Further, in the 1960s, the 1957 Plan served as basis for the development of the Plan for the African, Madagascar and Mauritius Organization (grouping of former French colonies) by a group of experts from the National Council of Accounting and INSEE.

With changing economic conditions in France, the passing of new laws, the rapid development of information processing techniques and the internationalization of trade and capital markets, the Accounting Plan needed revision. The need to improve the possibilities for financial and economic analysis offered by the plan’s financial statements played an important role in drafting the revised plan’s conceptual framework; in fact, this consideration dominated the first phase of the revision (1970 to 1975). The new proposed plan changed the classification criteria adopted in the 1947 and 1957 Plans, and introduced a number of innovations. The classification of balance sheet elements according to their degree of liquidity/maturity was replaced by a classification of assets and liabilities according to their economic function in the firm. The impact of tax regulations on accounting income and on the balance sheet was to be shown separately in accounts such as regulated provisions. The presentation of a statement of changes in financial position was to be made mandatory as a result of banks’ and financial analysts’ requests for information about the impact of the firm’s transactions on its financial position. In the income statement, components of production were to be shown separately, and computation of value added was required to meet national accountants’ information needs. These changes were approved by the National Council of Accounting (Conseil National de la Comptabilité) in 1975.

Unfortunately, the 1975 Plan could not be adopted as such, since it had to be harmonized with the requirements of the European Economic Community (EEC) directive on company financial statements, which was approved in 1977. The EEC fourth direc-
tive had both positive and negative impacts on the evolution of French accounting.

Among the positive results were the introduction of the "true and fair" concept used in English-speaking countries, which goes beyond the French notion of *comptes réguliers et sincères* (whose meaning is closer to careful obedience of the law), the new level of importance granted to notes to financial statements, the breakdown of income taxes information on deferred taxes.

Among the negative impacts of the fourth directive on French accounting were the abandonment of the requirement for the preparation of a statement of changes in financial position; the partial abandonment of the functional classification in the balance sheet reverting to the previous classification of elements according to their degree of liquidity/maturity; and the abandonment of the computation of value added on the income statement. At the EEC level, financial statements were not designed with the same broad objective of serving micro and macro-accounting as in France. Furthermore, its development was based on the 1957 Accounting Plan's financial statements and on the German financial statements in use in the 1960s [Nichus, Spring 1972]. Therefore, a number of innovations of the 1975 Plan, some of which reflected national accountants' demands, were not incorporated into the fourth directive. Similarly, since no conciliatory work had been done on a possible statement of changes in financial position at the EEC level, no such statement was included among the mandatory documents to be prepared annually by firms.

EEC member countries could go beyond the fourth directive's requirements when incorporating its provisions into their respective laws. Nevertheless, France was bound by the EEC requirements, since the French industry representatives at the CNC found support in the directive for their claims for simpler statements and fewer disclosures than originally anticipated in the 1975 Plan. French companies did not want to have to disclose more information than was required from their EEC competitors. Furthermore, it was not difficult at this point for industry representatives at the CNC to bring about changes in the 1975 Plan, since it was only a draft and had not yet been implemented. A compromise solution involved providing, in addition to the basic set of financial statements, a more elaborate, optional set of documents with the same basic structure as the EEC directive statements, but retaining as many as possible of the innovations of the 1975 Plan. A third, much shorter set of statements was adopted for small firms.
The revised plan was adopted by ministerial decision in June 1979. A final version of the plan, very similar to the 1979 draft, was approved in April 1982, and came into effect on April 30, 1983 with the passing of the accounting law designed to incorporate the provisions of the EEC fourth directive into the national legislation.

**THE HERITAGE OF THE 1947 PLAN AND RECENT INNOVATIONS**

The basic characteristics and structure of the 1947 Accounting Plan remain in the 1982 Plan. However, some elements were added, the terminology was refined and augmented, the presentation of the Plan was improved, and a number of changes were made to the chart of accounts and the financial statements. To highlight what has been retained of the past experience in the 1982 Plan and what are its main new characteristics, a comparative analysis with the 1947 Plan will be presented in the following paragraphs.

The 1982 version of the Plan contains basically the same elements as the 1947 edition (refer to the previous presentation of the 1947 Plan). However, accounting principles, which were implied in the 1947 Plan, are now specified clearly in the first section of the Plan. The cost accounting section of the Plan was greatly expanded. However, cost accounting remains independent from financial accounting. Additional information provided in this section includes the objectives of cost accounting, its uses for the management of operations, and a framework for the analysis of transactions in cost accounting.

The 1982 chart of accounts uses only nine of the ten classes, the class for statistical accounts (number 10) having been eliminated. Classes 1 to 5 are still reserved for balance sheet accounts and they retain the same titles. The operating accounts remain in classes 6 and 7. However, in each class, important reallocations were made in two-digits accounts in order that the chart more closely correspond to the new financial statement presentation of the classes' elements. Class 8 is now used for special accounts, such as commitments and consolidation accounts. Former profit and loss accounts of class 8 were reallocated into other classes because there is now only one statement for income related operations.

In fact, the fusion of the former trading account, and profit and loss account into one income statement is a major change that has been made to the 1947 Plan. However, the current/excep-
tional breakdown of operations has been maintained in the structure of the 1982 income statement, which is now divided into four sections namely, operations results, financial results, exceptional results and income taxes.

As far as the balance sheet is concerned, the 1947 liquidity/maturity criterion was retained for the classification of elements, except for financial investments and for liabilities. These elements are shown globally, details of maturity using the one-year criterion being given in notes to the balance sheet. A noteworthy change in the balance sheet concerns the presentation of net income for the period: it has been made part of equity instead of being shown separately as the last element of either the left or right section of the statement.

New importance has been granted to the supplementary information provided with the financial statements. In fact, notes are now regarded as being an integral part of the financial statements, subjected to the concept of true and fair presentation of financial information. Also, supplementary schedules are more numerous than in the 1947 Plan. A schedule presenting assets and liabilities maturities has been added and some summary statistics covering a five year period are requested, concerning such elements as capital, net income, wages and social security benefits.

The three sets of financial statements (the basic set; the optional, developed set; the abridged set, for small enterprises), all based on the basic framework, also represent a new feature of the 1982 Plan.

As can be noted from the comparison of the 1982 and 1947 Plans, the successive French committees on normalization had a good basis to work upon and, even if many improvements have been made, several features of the 1947 Plan have been preserved.

CONCLUSION

Since the 1940s, the road to French accounting standardization has been paved by a number of episodes, each building upon the previous stages. First, there was the unofficial 1942 Accounting Plan drafted during World War II under government's initiative. Then, in the 1942-1944 period, the Rational Plan was elaborated under the aegis of the CNOF, a private organization. Following the war, the 1947 Accounting Plan was the first plan officially approved by a governmental decree. Subsequently, revised editions of the 1947 Plan were approved in 1957 and in 1982, the latest version of the plan incorporating European considerations originating from the harmonization at that level.
Since the 1950s, French plans influenced accounting practice worldwide through their adoption by several countries and their adaptation for the former French colonies in Africa. Still today, some countries, like Madagascar who has adopted the latest French Plan, continue to be influenced by French innovations in accounting.

REFERENCES


## APPENDIX

### The 1947 Accounting Plan — Chart of Accounts

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### Group 0

- 00 Data to be attached to Balance Sheet

### Group 9

- 90 General Control Accounts

### Group 8

- 80 Opening Results

### Group 7

- 70 Sales

### Group 6

- 60 Purchases

### Group 5

- 50 Short-term Borrowings

### Group 4

- 40 Supplies

### Group 3

- 30 Goods

### Group 2

- 20 Preliminary Expenses

### Group 1

- 10 Capital

---

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The 1947 Accounting Plan — Chart of Accounts

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APPENDIX (CONTINUED)

Abstract: In order to better understand the development of accounting research, this paper examines the work of the leading authors of The Accounting Review (Leading Authors) during 1946-1965. An earlier study [Fleming, Graci and Thompson, 1990] concluded that the work of the Leading Authors during the 1926-1945 period was characterized by a practical orientation. The Accounting Review in many respects remained a practically oriented journal during 1946-1965. However, changes are evident that were contributing factors in the evolution of The Accounting Review into its current quantitative/empirical orientation.

The purpose of this paper is to increase the understanding of the development of accounting research as published in The Accounting Review, one of the premier as well as oldest journals in the field. In a related paper by Fleming, Graci and Thompson [1990], the work of the 19 Leading (i.e., most prolific) Authors of The Accounting Review during 1926-1945 was compared with the work published while Sundem and Kinney were Editors of The Accounting Review (1982-1989). The major finding in that paper was that the early Leading Authors, several with significant practical experience, tended to write articles, in terms of topics, research methods, citations, and length, which would be of interest to practitioners.

The authors are grateful to Rob Bricker, Jesse Dillard, Bob Elmore, Walker Fesmire, Dieter Weiss, and two anonymous referees for reviewing earlier versions of this paper. Also, the authors wish to thank Tom Koster for his assistance on this project.
This paper examines the work of the 22 authors (henceforth referred to as "Leading Authors") who published the greatest number of articles in The Accounting Review during 1946-1965, the next twenty-year period. Although this period was initially selected for different reasons,\(^1\) it turns out to be a fortuitous choice for tracing the evolution of accounting research. The period begins shortly after the end of World War II which, although not an accounting event \emph{per se}, is nevertheless associated with events (e.g., increased college enrollments after its conclusion [Niswonger, 1956; Moyer, 1956] and controls over war related industries [Davis, 1947] that did have an impact on accounting.\(^2\) Similarly, the period ends about the time that there was a noticeable change in the nature of published accounting research [Dyckman and Zeff, 1984].\(^3\) Also, just after the end of this period, The Accounting Review adopted an editorial review board to make the journal a peer reviewed publication [Flesher, 1991, p. 167].

The focus of this paper is on Leading Authors, those who were most successful in getting their work published in The Accounting Review. While this is more of a quantitative measure than a qualitative measure,\(^4\) there is nevertheless interest in prolific authors as evidenced by such publications as Richardson and et al.: Accounting Historians Journal, 1991, Vol. 18, no. 2

\(^1\)Twenty-year periods were selected by Heck and Bremser [1986] who compiled lists of authors (which serve as the starting point for this paper) with the most articles published in The Accounting Review during 1926-1945, 1946-1965 and 1966-1985 (as well as for the entire period 1926-1985). Twenty-year periods seem to be a reasonable length to trace the evolution of accounting research. Interestingly, Dyckman and Zeff [1984] evaluated the Journal of Accounting Research after a twenty-year period.

\(^2\)Although not the focus of this paper, World War II may have had numerous effects on accounting. For example, consider that 1940 marked the beginning of a period of sustained and dramatic growth in the market value of all listed stocks on the New York Stock Exchange from less than $50 billion to well over $800 billion less than 40 years later [Previts and Merino, 1979, p. 330]. Undoubtedly, the fact that the United States had one of the few intact industrial economies following World War II played a large role in this growth. It would seem that this environment could not help but influence the development of accounting in the U.S.

\(^3\)It is worth noting that Previts and Merino [1979] used 1937-1966 as one of their time periods in their history of accounting. While the beginning dates differ (the beginning date for this paper is fixed given that an earlier paper [Fleming, Graci and Thompson, 1990] covered 1926-1945), their ending date is close to the year 1965 used here. In any case, there does not appear to be a definitive date in the 1960s to use as a cutoff to trace the changing nature of accounting research.

\(^4\)Note though that number of publications is not without a qualitative aspect. At least the editor must have thought the articles made a valuable contribution.
Williams [1990], Heck and Bremser [1986], Jacobs, Hartgraves and Beard [1986] and Williams [1985], which each use number of publications in their analysis. More importantly, the emphasis in this paper is on how The Accounting Review changed over time. The Leading Authors constitute a well-defined sample which facilitates comparisons of different periods.5

Specifically, this paper seeks to determine if the work published in The Accounting Review by the Leading Authors during 1946-1965 was simply an extension of the practically oriented work of the Leading Authors during 1926-1945; or, alternatively, if the work served to more gradually bridge the gap between the earlier practical orientation of The Accounting Review to the current quantitative/empirical one. The method employed is to examine characteristics of the articles of the Leading Authors during 1946-1965 and compare them to their counterparts of 1926-1945 as well as to recent contributions appearing in The Accounting Review.6 A detailed examination of why a particular individual wrote a particular article at a particular time is beyond the scope of this paper.

The questions addressed in this research include the following. (1) What were the topics of the articles? (2) What research methods were employed? (3) Which journals were important? (4) Did books matter? (5) Who influenced the Leading Authors? (6) How long were the articles? (7) What was the background of the Leading Authors? Along the way, other details are provided which should be of interest to accounting scholars (e.g., a listing of the more influential works).

Questions (1) and (2) are addressed by examining the individual articles and classifying them. Questions (3) through (5) are investigated by employing a citation analysis in the spirit of Brown and Gardner [1985a; 1985b] and others (i.e., "single" citation analysis is used as opposed to co-citation analysis). Page lengths of

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5There certainly are other valid approaches. For example, all of the articles in The Accounting Review could be examined, but this is not practical for the level of detailed analysis used in this paper. Another possibility would be to examine a random sample of articles; however, unless the sample size is sufficiently large, sampling variation may affect the results. Again, the Leading Authors constitute a well-defined group that is meaningful in each time period. It also should be pointed out that this paper is not about determining seminal contributions to accounting. An analysis of seminal contributions is not likely to reveal how The Accounting Review changed through time.

6A detailed analysis of the 1966-1985 period awaits future research.
the articles are analyzed for question (6) and some biographical information is provided for question (7).  

This paper is presented in five parts. The first part addresses the topics of the articles and the research methods used by the Leading Authors. The second part reports the results of the citation analysis. It is followed by an examination of the length of the articles. Biographical information on the Leading Authors is then provided. The final part includes a summary and concluding remarks.

**TOPICS AND RESEARCH METHODS**

Analysis of the articles begins with a classification by major topics to learn what issues were of interest to the Leading Authors. Next, research methods are examined to determine how the Leading Authors approached these issues. Since research methods may vary with topic, a cross-classification of research method by topic is presented. Finally, a detailed classification of the articles in the most popular topic area, financial accounting, is provided. This gives a closer look at how the interests of authors changed over time.

To facilitate comparisons, the classification schemes for topics and research methods developed by Sundem [1987] for analysis of *The Accounting Review* were used with the exception that, for the topic classification scheme, an education category was added. Exhibit 1 presents the criteria for topic classification developed by Sundem while Exhibit 2 presents his criteria for the classification of research methods. Each of the three authors of this paper, independent of one another, classified the articles based on the primary emphasis (with respect to topic and research method) of the articles. The authors then met and discussed their classifications. In the vast majority of cases, there was initial agreement among the independent classifications. Any differences were discussed and in most of these cases unanimous agreement was achieved. In the few cases in which unanimity was not achieved, the classification was based on a 2-to-1 vote. These cases typically involved disagreement as to the primary emphasis (topic or research method) of the article rather than the classification criteria.

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7The tabulations presented may also be useful to other researchers in helping answer other questions as well as in helping to spur the formation of further research hypotheses.

8Other classification schemes are certainly possible (e.g., Dyckman and Zeff [1984] and Vasarhelyi, Bao and Berk [1988]).
Exhibit 1

Topic Classification Scheme
(Adapted from Sundem [1987, pp. 194-195])

FINANCIAL—External reporting issues even though they may impact internal reporting also. Inventory valuation papers were classified as financial rather than managerial.

MANAGERIAL—Internal reporting issues.

AUDITING—Related to tasks performed by auditors.

TAX—Federal income tax issues.

PROFESSIONAL—Professional practice of accounting firms.

RESEARCH METHODS—Focused completely on such methods without direct application to an accounting issue.

INTERNATIONAL—Assessed uniquely international aspects of an issue such as differences in accounting practices. Generally involved more than one country.

NONPROFIT/GOVERNMENTAL—Required the special circumstances of such organizations to be a major influence on the research.

INFORMATION SYSTEMS—Broad range of papers from office automation, to evaluation methods for accounting software, to the affects of different data storage systems on decision making, etc.

EDUCATION—Studies on pedagogy and curriculum matters.

OTHER—Not related to one of the above.

Exhibit 2

Research Method Classification Scheme
(Adapted from Sundem [1987, p. 198])

GENERAL EMPIRICAL—A catch-all that includes primarily descriptive empirical work.

CAPITAL MARKET—Studies using security prices to measure reaction or association.

BEHAVIORAL—Studies conducted to measure the reaction of student or professional subjects.

ANALYTIC MODELING—Studies using models with no specific underlying economic theory but use mathematical techniques.

ECONOMIC MODELING—Studies which bring economic analysis to bear on a topic— they may be mathematical or verbal models.

STATISTICAL MODELING—Studies which use models where the main focus is on statistical models.

SIMULATION—Studies where the analysis is so complex so that computer simulation is necessary.

DEDUCTIVE—The deductive studies that do not fit in other categories, including opinion pieces. (To be explicit, this category in this paper was interpreted to include inductive, descriptive and legal research methods as well.)

HISTORICAL—Papers that use archival methods to study an issue of current interests.

SURVEY—Studies reporting information gathered by questionnaire about practices or attitudes.
As Sundem points out [1987, p. 194], such classifications are subjective and others may have classified the papers differently. Perhaps the most difficult aspect of Sundem's classification scheme is with international topics. Unlike the other topics in which it is relatively easy to discern differences (e.g., financial vs. auditing), international is not necessarily mutually exclusive of financial or other topics. "International" was interpreted to mean more than one country or at least the motivation of the paper included making a comparison with U.S. practices. Consideration was also given to the other Accounting Review articles written by an author. For example, Mary Murphy's "Comparative Professional Accountancy — Australia," ostensibly considered only Australia. However, she wrote a series of such papers considering professional accountancy in several countries. Thus, her Australia paper was classified as "international." This classification seemed the most consistent with Sundem's criteria.

**Topics**

Table 1 shows that the 22 Leading Authors published 188 articles in eight topical areas and an "other" category.9 As noted, financial accounting is the most popular topic with 46% of the articles. The education category is second with 21% of the articles, followed by the managerial area (13%), the professional area (8%), and the international area (5%). The Leading Authors published less than ten articles in each of the tax, nonprofit/governmental, and auditing areas.

Financial accounting decreased in its share of articles form 67% during 1926-1945 to 46% during 1946-1965 which is similar to its recent share of 45% of the articles while Sundem was Editor [Sundem, 1987] and 50% of the articles while Kinney was Editor [Kinney, 1990].10 Education articles became much more popular

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9Heck and Bremser [1986] reported the number of articles published by each Leading Author along with the guidelines used for counting articles. Except for Lorig, the specified number of articles was found for each author. In Lorig's case, seven articles were found along with two replies. Since replies were not suppose to count as articles by their guidelines and since it was not clear which reply was apparently counted (in order for Heck and Bremser to credit Lorig with eight articles), only seven articles were used for Lorig in this study. Also, Heck and Bremser reported that there were 1,464 articles published in The Accounting Review during the 1946-1965 period. Thus, the Leading Authors accounted for approximately 13% of the articles.

10All the data from the 1926-1945 period reported in this paper is from Fleming, Graci and Thompson [1990].
Table 1

Major Topic by Author

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Percent: 1946-1965  46%  21%  13%  8%  5%  2%  2%  1%  3%  100%*

Percent: 1926-1945  67%  8%  6%  3%  0%  3%  8%  2%  4%  100%*

*does not add up to 100% because of rounding errors

during 1946-1965 compared with the earlier period (21% vs. 8%) while being phased out of *The Accounting Review* in recent years. Managerial accounting experienced an upward trend in interest over the years (from 6% to 13% to 17% while Sundem was Editor) but fell-off while Kinney was Editor (to 9%). Auditing articles, a significant proportion of articles in recent years (16% during 1983, the American Accounting Association started publishing a new journal, *Issues in Accounting Education*, for education articles.
Sundem's term and 26% during Kinney's term), were practically nonexistent among the Leading Authors during the first 40 years of *The Accounting Review*. The same can be said of tax articles, although the interest has not been as strong as auditing in recent years (6% for Sundem and 8% for Kinney).

With respect to the relative number of articles published in the various categories, the 1946-1965 period plays a mixed role in the evolution of research published in *The Accounting Review*. The Leading Authors of 1946-1965 exhibited a similar level of interest to recent contributors in the financial accounting area. This level is lower than that of the 1926-1945 period, reflecting a greater diversity of interest in other topics in both the 1946-1965 period and recent years. In the managerial area, the Leading Authors of 1946-1965 exhibited an intermediate level of interest between that of the Leading Authors of the 1926-1945 period and that of recent contributors. In this sense, the 1946-1965 period bridges the gap between the earlier period and recent years. However, in the tax and auditing areas, there is no evidence based on the work of the Leading Authors that suggests that the 1946-1965 period bridges the gap between the low level of interest of the earlier years and the relatively high level of interest in recent years.

*Research Methods*

The research methods used by the Leading Authors are classified in Table 2. The deductive method was used over 87% of the time. The second most popular method was analytical modeling which was employed about 4% of the time. Thus, research methods other than the deductive method were not widely employed by the Leading Authors. In fact, 12 of the 22 Leading Authors used only the deductive method. Moreover, except for Snyder, each of the Leading Authors used the deductive method more than any other method.

These results are comparable to the first twenty years of *The Accounting Review* where the Leading Authors used the deductive method 84% of the time. Thus, 1926-1965 can be characterized as a period dominated by deductive methods. In contrast, recent contributors to *The Accounting Review* generally use quantitative/empirical research methods [Sundem, 1987; Kinney, 1990]. According to Bricker and Previts [1990], this change was due to such

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12 Each of Snyder's papers, some quite sophisticated, were related to time value of money problems.
factors as the adoption by the AACSB in 1967 of the doctorate as the terminal degree for accounting faculty and recent promotion and tenure standards requiring research, including theoretical-empirical studies.

Nevertheless, there is a small but perceptible trend in the use of quantitative/empirical research methods from the 1926-1945 period to the 1946-1965 period. There is a total of 20 (11%) ar-

Table 2
Research Methodology

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<th>Historical</th>
<th>Survey</th>
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<th>Statistical</th>
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Percent: 1946-1965

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Percent: 1926-1945

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</table>

*does not add up to 100% because of rounding errors
articles (seven of which were written by Snyder) in other than the deductive and historical categories during 1946-1965 while there are only eight (5%) such articles published by the Leading Authors during 1926-1945. Of the 20 articles in the 1946-1965 period, 15 were published prior to 1960. Although it certainly could not account for the dramatic change in the literature, there is an insignificant trend toward quantitative/empirical articles among the Leading Authors prior to the 1960s.

**Topics by Research Methods**

A cross-classification of topics and research methods is presented in Table 3. As in the 1926-1945 period, the deductive method is the dominant method on an overall basis as well as for each topic area. Moreover, it is the only method applied in the professional, tax, nonprofit/governmental, and auditing areas. Once again, these results are quite different from the work of current authors who usually use quantitative/empirical methods in each area [Sundem, 1987; Kinney, 1990]. Thus, it would be difficult to conclude that the 1946-1965 period played much of a direct evolutionary role in the use of empirical/quantitative research methods.

**Table 3**

**Research Methodology by Major Topic**

<table>
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<th>Analytical Modeling</th>
<th>Historical Survey</th>
<th>General Empirical Econ</th>
<th>Statistical Modeling</th>
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Financial Accounting Subtopics

Table 4 provides a classification for the articles dealing with financial accounting. The classification scheme is based on the chapters in intermediate and advanced accounting textbooks, with similar chapters being combined (e.g., the two chapters on inventories were combined into a single subtopic). The "other" cat-

**Table 4**

**Financial Accounting Subtopics by Author**

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<th>Plant and Equipment</th>
<th>Stockholders' Equity</th>
<th>Full Disclosure</th>
<th>Long-Term Liabilities</th>
<th>Income Statement</th>
<th>Inventories</th>
<th>Changing Prices</th>
<th>Consolidations</th>
<th>Income Taxes</th>
<th>Current and Contingent Liabilities</th>
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<td>Arthur Lorig</td>
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<tr>
<td>George Staubus</td>
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<tr>
<td>Total Articles</td>
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<td>3</td>
<td>2</td>
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</tr>
<tr>
<td>Total Authors</td>
<td>9</td>
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<td>6</td>
<td>6</td>
<td>5</td>
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<td>5</td>
<td>3</td>
<td>2</td>
<td>6</td>
<td></td>
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</tr>
</tbody>
</table>

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13For definitiveness, Kieso and Weygandt's *Intermediate Accounting* [1989] and Baker, Lembke, and King's *Advanced Accounting* [1989] were used.

https://egrove.olemiss.edu/aah_journal/vol18/iss2/10
egory was used for subtopics which contained only a single article. Treating the chapter titles of the textbooks as general categories, all of the 86 articles related to either intermediate or advanced accounting, with all but six articles relating to intermediate.

Environmental and concepts (i.e., the first two chapters in intermediate accounting) was the most popular subtopic with 14 articles. The next most popular area was plant and equipment (including depreciation) with nine articles. Next came stockholders' equity, full disclosure, and long-term liabilities (including present value), each with eight articles.

Many of these themes were also prevalent in the preceding twenty-year period. The three most popular financial accounting subtopics for the Leading Authors during 1926-1945 were environment and concepts, stockholders' equity, and plant and equipment. Sundem [1987] reports that the three most popular financial accounting subtopics in recent submissions to The Accounting Review were inflation (i.e., changing prices), earnings prediction (i.e., financial statement analysis), and standard setting (i.e., environment and concepts).14

Interestingly, standard setting was popular in all three time periods while changing prices received significant attention as well. The big difference is the explicit interest in the use of financial information in recent years as evidenced by the popularity of earnings prediction. The classification scheme does not disclose that the 1946-1965 period played a significant role in this shift in emphasis.15

It is also notable that there was a relative decline in interest in articles on environment and concepts, plant and equipment, and stockholders' equity. Less was written in these areas by the Leading Authors during 1946-1965 (31/86 or 36%) than in 1926-1945

14Kinney [1990] did not classify financial accounting articles by specific topics.

15To be fair, there was a user-oriented theme in some of the articles during the 1946-1965 period. Several of Horngren's articles fall into this category. With respect to Horngren's articles, it should also be mentioned that it was somewhat difficult to classify them with respect to research method. Although he based at least part of his articles on surveys and interviews with financial statement users, detailed explicit results were not provided. The feedback he received was referred to in a general descriptive way. Thus, this work was classified as deductive. Presumably, if these papers were published today, the detailed results would be included. Perhaps the style of The Accounting Review dictated this method of reporting his findings.
This decline is understandable given the concern over standard setting, depreciation, and dividends during the 1926-1945 period [Fleming, Graci and Thompson, 1990]. John Carey [1970, pp. 567-89] notes that with the number of stock market participants rapidly expanding following World War II, the major issue in financial reporting became comparability of reported earnings by different companies (i.e., uniformity). There was pressure from many quarters to reduce the number of reporting alternatives for specific items. Consistent with this, the Leading Authors apparently branched out, analyzed, and wrote about more financial accounting areas. That trend has continued in recent years where the three most popular subtopics accounted for only 32% of the submissions in the financial accounting area [Sundem, 1987].

A CITATION ANALYSIS

An obvious element of the Leading Authors' articles to investigate is the references (i.e., citations). In recent years, there has been numerous applications of citation analysis in the accounting literature. These applications have: (a) explored the accounting discipline's knowledge system [McRae, 1974]; (b) quantified the impact of journals [Dyckman and Zeff, 1984; Brown and Gardner, 1985a; Brown, Gardner and Vasarhelyi, 1987]; (c) determined significant works [Brown and Gardner, 1985a; Gamble and O'Doherty, 1985a]; (d) ranked faculties and doctoral programs [Brown and Gardner, 1985b; Gamble and O'Doherty 1985a]; (e) investigated the role of historical articles in recent research [Bricker, 1988a and 1988b]; (f) identified seminal contributions to the literature [Gamble and O'Doherty, 1985b; Gamble, O'Doherty and Hyman, 1987]; and (g) inferred the structure of accounting research [Bricker, 1989]. Applications (a) through (e) used "single" citation methods while applications (f) and (g) also employed co-citation methods. In short, numerous uses of citation analysis have been found using different methods.

This study employs the "single" citation method to help determine influences on the Leading Authors. This method consists of counting references in articles (one or zero per article; it does not matter how many times a reference is cited within the same article) and tabulating the results. Journals, authors of articles, articles, authors of books, and books are identified. Inferences are made based on the results in an attempt to better understand the development of accounting research. In addition, an association is
found between being an influential author as determined by citation analysis and being in the Accounting Hall of Fame. This finding provides additional support for the validity of citation analysis. Nevertheless, citation analysis has limitations [Brown and Gardner, 1985a; Gamble and O'Doherty, 1985a], such as not taking into account the age of a reference; therefore caution is urged in interpreting the results.

The following guidelines were employed in this study. To be counted, the citation for a journal article needed to at least include author, title, and journal. For a book to be counted, at least author and title had to be given. These minimum requirements provided consistency in the collection of the citations and enhanced objectivity in the analysis (e.g., books could be readily distinguished from journal articles). Papers in proceedings were counted as journal articles and the proceedings were counted as a journal. Chapters in books were counted as books. Self-citations were eliminated to focus on which journals/authors had the greatest impact on the Leading Authors. No adjustments were made for co-authored works (i.e., a co-author was given full credit in counts of authors).

Table 5 summarizes the number of citations of articles and books for each of the Leading Authors and in total. The overall results are very similar to the 1926-1945 period in that there are relatively few references and books are referenced more often than articles. The average number of citations per article of 3.4 for this time period is only .2 higher than the average for the earlier twenty-year period. Since the average number of citations per books (2.0) is the same in both time periods, the small increase in citations is due to articles. For comparison, in a recent volume (LXIV or 1989) of The Accounting Review, articles averaged, with self-citations eliminated, 20.9 citations comprised of 16.65 average citations of journal articles and 4.25 average citations of books. The small increase in citations during 1946-1965 can hardly be considered a sufficient trend to account for the large number of citations used in articles today.

At the individual author level, the Leading Authors during 1946-1965 have a more even distribution of citations than their counterparts of the 1926-1945 era. Only three of 22 authors in the 1946-1965 period averaged one or fewer references per article compared with 12 of 19 in the earlier period. Apparently, making references to other works was becoming a more typical writing technique, possibly reflecting that more of the Leading Authors
had a Ph.D. (discussed subsequently) and were taught to seek out other relevant literature. As a consequence of a more even distribution of references across authors, the results which follow regarding journals and authors are not dominated by the references of a relatively few authors as was the case in 1926-1945.

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16On the other hand, none of the Leading Authors of the 1946-1965 era made extensive use of references, each author averaging less than ten per article. This is in contrast with the earlier period in which both Henry Sweeny and Harry Kerrigan averaged more than ten references per article (21.4 and 11.6, respectively).
**Journals**

Table 6 shows the journals cited by the Leading Authors. By far, the most cited journal is *The Accounting Review*. The *Journal of Accountancy* is a distant second. Thus, *The Accounting Review* seems to have had the greatest impact on its Leading Authors during this era. This is in contrast with the 1926-1945 era in which the *Journal of Accountancy* was the most cited journal by the Leading Authors with *The Accounting Review* a close second. While this change does not necessarily reflect a change in practical orientation, it could reflect a change in the group of people influencing the Leading Authors. To the extent that authorship of the cited works in *The Accounting Review* was becoming dominated by individuals with Ph.D.s\(^{17}\) and less practical experience (which is the case for the Leading Authors as discussed subsequently), this change may foreshadow the recent emphasis on quantitative/empirical orientation of *The Accounting Review* as influential academics came to accept this type of research.

**Table 6**

**Most Cited Journals**

<table>
<thead>
<tr>
<th>Name of Journal</th>
<th>Times Cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Review</td>
<td>107</td>
</tr>
<tr>
<td>Journal of Accountancy</td>
<td>38</td>
</tr>
<tr>
<td>Proceedings of the International Congress of Accountants</td>
<td>16</td>
</tr>
<tr>
<td>Harvard Business Review</td>
<td>9</td>
</tr>
<tr>
<td>Journal of Business</td>
<td>8</td>
</tr>
<tr>
<td>NACA Bulletin</td>
<td>8</td>
</tr>
<tr>
<td>Accounting Research</td>
<td>6</td>
</tr>
<tr>
<td>Analysts Journal</td>
<td>6</td>
</tr>
<tr>
<td>Accountant</td>
<td>4</td>
</tr>
<tr>
<td>Accountants Digest</td>
<td>3</td>
</tr>
<tr>
<td>Conference of the International Association</td>
<td></td>
</tr>
<tr>
<td>for Research in Income and Wealth</td>
<td>3</td>
</tr>
<tr>
<td>Internal Auditor</td>
<td>3</td>
</tr>
<tr>
<td>Journal of Accounting Research</td>
<td>3</td>
</tr>
<tr>
<td>11 journals (tie)</td>
<td>2</td>
</tr>
<tr>
<td>25 journals (tie)</td>
<td>1</td>
</tr>
</tbody>
</table>

\(^{17}\)Based on a review of the *Comprehensive Dissertation Index, 1861-1972* [Xerox University Microfilms, 1973], approximately two-thirds of the articles cited were written by authors with a Ph.D.
Another interesting aspect of Table 6 is that most of the 13 journals listed by name have an accounting orientation. The exceptions are Harvard Business Review, Journal of Business, Analysts Journal, and the proceedings from the Conference of the International Association for Research in Income and Wealth. This is in contrast to the 1926-1945 era where there were several economic and legal journals on the list of the most cited journals. Thus, the Leading Authors were primarily relying on the accounting field's own literature during 1946-1965. On the other hand, in volume LXIV (1989) of The Accounting Review, only six of the most cited 14 journals are accounting oriented. The others are from finance (3 journals), psychology (3), management (1), and economics (1). Thus, once again, authors published in The Accounting Review are being heavily influenced by other fields. It appears that research published in The Accounting Review has made a transition from initially relying on other fields (economics and law) in the 1926-1945 period, to breaking away and establishing its own identity during 1946-1965, and then to borrowing from other disciplines (finance, psychology, management and, still, economics) in recent years.

Two other comments are worth making. First, all of the citations to the Proceedings of the International Congress of Accountants were made by Mary Murphy. As shown in the topic classification of the articles (Table 1), she was the leading author in the international area. Murphy earned her Ph.D. at the London School of Economics. In addition, based on her articles and “Association Notes” published in The Accounting Review, she often traveled abroad lecturing and attending various professional meetings.

Second, note the presence of the Journal of Accounting Research near the bottom of the list. Since this journal did not start publication until 1963, it had comparatively few articles which could have been referenced by the Leading Authors. Thus, it would be inappropriate to conclude from Table 6 that the Journal of Accounting Research was not influential during its early years. During 1989, the Journal of Accounting Research was the most cited journal in The Accounting Review.

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18 Since there was a tie for thirteenth place in the current list of journals, 14 journals are discussed.
19 Mary Murphy is also listed in the first edition of Who's Who of American Women.
Authors

Table 7 shows the most cited authors of articles. William A. Paton heads the list. His article, "Depreciation and the Price Level — Second Affirmative," published in *The Accounting Review*, was cited three times by the Leading Authors. No other article was cited three or more times by the Leading Authors.

**Table 7**

<table>
<thead>
<tr>
<th>Name of Author</th>
<th>Times Cited</th>
</tr>
</thead>
<tbody>
<tr>
<td>William A. Paton*</td>
<td>7</td>
</tr>
<tr>
<td>Edward B. Wilcox</td>
<td>5</td>
</tr>
<tr>
<td>Raymond J. Chambers*</td>
<td>4</td>
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<tr>
<td>Carl T. Devine</td>
<td>4</td>
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<tr>
<td>W. J. Graham</td>
<td>4</td>
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<tr>
<td>George H. Sorter</td>
<td>4</td>
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<tr>
<td>George J. Staubus</td>
<td>4</td>
</tr>
<tr>
<td>William J. Vatter</td>
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<tr>
<td>Hector R. Anton</td>
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<tr>
<td>Robert L. Dixon</td>
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<td>James L. Dohr</td>
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</tr>
<tr>
<td>Howard C. Greer</td>
<td>3</td>
</tr>
<tr>
<td>Charles T. Horngren*</td>
<td>3</td>
</tr>
<tr>
<td>George R. Husband</td>
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</tr>
<tr>
<td>Jeremy C. Jenks</td>
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<tr>
<td>Herbert E. Miller*</td>
<td>3</td>
</tr>
<tr>
<td>Richard Stone</td>
<td>3</td>
</tr>
<tr>
<td>Herbert F. Taggart</td>
<td>3</td>
</tr>
<tr>
<td>30 authors</td>
<td>2</td>
</tr>
<tr>
<td>153 authors</td>
<td>1</td>
</tr>
</tbody>
</table>

*Member of the Accounting Hall of Fame

Edward B. Wilcox's work was cited the second most by the Leading Authors. His most cited articles are "The Case Against Price Level Adjustments in Income Determination" (co-authored with Howard C. Greer) and "Accounting for Stock Dividends: A Dissent from Recommended Practice." Both of these appeared in *the Journal of Accountancy* and were each cited twice. Given the

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20 Since there was little likelihood that authors cited by current authors would match any of those cited by the Leading Authors, a list of recently cited authors was not compiled.
lack of concentrated citations for given articles, it is fair to say that there were not very many specific articles with a great impact on the Leading Authors. The same holds true for the 1926-1945 period. This is in contrast to current practice where specific articles have had a major impact on accounting literature (e.g., Ball and Brown [1968]).

William A. Paton was also the most cited author of books as shown in Table 8. Eight different books written by Paton were cited by the Leading Authors. His most cited work was the classic he co-authored with A. C. Littleton, An Introduction to Corporate Accounting Standards. It was cited 12 times. No other work comes close in terms of number of citations by the Leading Authors. The next most cited works were cited only five times. These are The Fund Theory of Accounting and Its Implications for Financial Reports, written by William J. Vatter, and The Economics of Account-

### Table 8

**Most Cited Authors of Books**

<table>
<thead>
<tr>
<th>Name of Author</th>
<th>Times Cited</th>
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<tr>
<td>William A. Paton*</td>
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<tr>
<td>A. C. Littleton*</td>
<td>17</td>
</tr>
<tr>
<td>Maurice Moonitz*</td>
<td>10</td>
</tr>
<tr>
<td>Henry A. Finney*</td>
<td>9</td>
</tr>
<tr>
<td>William J. Vatter</td>
<td>7</td>
</tr>
<tr>
<td>George H. Newlove</td>
<td>6</td>
</tr>
<tr>
<td>John B. Canning</td>
<td>5</td>
</tr>
<tr>
<td>Carl T. Devine</td>
<td>5</td>
</tr>
<tr>
<td>A. A. Fitzgerald</td>
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</tr>
<tr>
<td>Henry R. Hatfield*</td>
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<tr>
<td>W. H. Bell</td>
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<tr>
<td>F. Sewell Bray</td>
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<tr>
<td>Victor Z. Brink</td>
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<tr>
<td>J. M. Clark</td>
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<tr>
<td>Stephen Gilman</td>
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<tr>
<td>Eric L. Kohler*</td>
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</tr>
<tr>
<td>George O. May*</td>
<td>4</td>
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<tr>
<td>John J. W. Neuner</td>
<td>4</td>
</tr>
<tr>
<td>Robert T. Sprouse</td>
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</tr>
<tr>
<td>Charles E. Staehling</td>
<td>4</td>
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<tr>
<td>Richard Stone</td>
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<tr>
<td>8 authors</td>
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<tr>
<td>47 authors</td>
<td>2</td>
</tr>
<tr>
<td>231 authors</td>
<td>1</td>
</tr>
</tbody>
</table>

*Member of the Accounting Hall of Fame
tancy, written by John B. Canning. Three works were cited four times each: *A Tentative Set of Broad Accounting Principles for Business Enterprises*, written by Maurice Moonitz and Robert T. Sprouse; *Principles of Accounting — Intermediate*, written by Henry A. Finney (including one reference to a version co-authored by Herbert E. Miller); and *Accounting Concepts of Profit*, written by Stephen Gilman.

It is interesting to examine the list, given in Table 9, of the most cited authors of both articles and books combined. Many of these authors are well known today. Note also that of the first 12 authors listed, half of them are in the Accounting Hall of Fame [Burns, 1987; The Ohio State University, 1991], including the first three. A similar phenomenon was observed in the 1926-1945 period where five of the first eight most cited authors were members of the Accounting Hall of Fame. Thus, citation analysis is consistent to some degree with the assessments made by the Hall of Fame Board of Nominations in their evaluation of contributions to the accounting literature (other criteria are involved in selections to the Hall of Fame such as professional and public service [Burns, 1975]). This is in no way meant to imply that the Hall of Fame Board of Nominations does or should use citation analysis in their assessments. Rather, it supports the validity of citation analysis in identifying influential authors. It is already known that in other fields there is a relationship between citations and measures of quality such as Noble prizes [Garfield, 1979, pp. 62-70].

Several of the authors cited in Table 9 also appear on the comparable list for the 1926-1945 time period. These are Paton, Littleton, May, Hatfield, and Montgomery. Thus, these five influenced the Leading Authors of *The Accounting Review* for 40 years. All of them have been inducted into the Accounting Hall of Fame. Paton's record is especially impressive. Not only does he appear on both lists, but he is first in the 1946-1965 period and second only to Irving Fisher in the 1926-1945 time period.

21 Despite the fact that the first four authors of the most cited books (Table 8) have been inducted into the Accounting Hall of Fame, overall there appears to be a slightly stronger association between the combined list of books and articles (Table 9) and the Accounting Hall of Fame. The same can be said from the lists for the 1926-1945 period. Interestingly, citation analysis studies sometimes focus on articles only. The results presented here suggest that it may be worthwhile to include books when compiling lists of influential authors, schools, doctoral programs, etc.
Table 9

<table>
<thead>
<tr>
<th>Name of Author</th>
<th>Times Cited</th>
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<tbody>
<tr>
<td>William A. Paton*</td>
<td>32</td>
</tr>
<tr>
<td>A. C. Littleton*</td>
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</tr>
<tr>
<td>Maurice Moonitz*</td>
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<td>William J. Vatter</td>
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<td>Carl T. Devine</td>
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<td>Henry A. Finney*</td>
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<td>Richard Stone</td>
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<td>F. Sewell Bray</td>
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<tr>
<td>George A. May*</td>
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<tr>
<td>Herbert E. Miller*</td>
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<td>Robert T. Sprouse</td>
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<td>Victor Z. Brink</td>
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<td>John B. Canning</td>
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<td>Raymond J. Chambers*</td>
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<td>J. M. Clark</td>
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<td>A. A. Fitzgerald</td>
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<tr>
<td>Henry R. Hatfield*</td>
<td>5</td>
</tr>
<tr>
<td>Eric L. Kohler*</td>
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<tr>
<td>Robert H. Montgomery*</td>
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<tr>
<td>George H. Sorter</td>
<td>5</td>
</tr>
<tr>
<td>Edward B. Wilcox</td>
<td>5</td>
</tr>
<tr>
<td>10 authors</td>
<td>4</td>
</tr>
<tr>
<td>25 authors</td>
<td>3</td>
</tr>
<tr>
<td>64 authors</td>
<td>2</td>
</tr>
<tr>
<td>351 authors</td>
<td>1</td>
</tr>
</tbody>
</table>

*Member of the Accounting Hall of Fame

ARTICLE LENGTH

Another aspect of the articles is their length. Overall, the average length for the Leading Authors during 1946-1965 was 6.5 pages. Staubus tended to write the longest articles with an average length of 9.9 pages while Perry tended to write the shortest articles with an average length of 4.1 pages. Remarkably, all of the Leading Authors during this time period averaged less than ten pages per article. This is in contrast to the first twenty years of The Accounting Review during 1926-1945. The obvious change during the 1926-1945 period was taken into account.

22There was not an obvious change in the typeset of The Accounting Review during 1946-1965. The obvious change during the 1926-1945 period was taken into account.
Accounting Review when eight of the 19 Leading Authors averaged ten or more pages per article with an overall average of 8.6 pages.

Much of the decline in the length of articles can be attributed to “The Teachers’ Clinic” which began as a subsection of The Accounting Review in the July, 1947 issue. The Leading Authors of 1946-1965 published 35 articles in this subsection with an average length of only 3.6 pages. The average length of the Leading Authors’ articles appearing in the other sections of The Accounting Review was 7.2 pages. This is more similar to the work of the Leading Authors of 1926-1945 than to the work of current authors who averaged 18.3 pages in volume LXIV (1989) of The Accounting Review.

SOME BIOGRAPHICAL INFORMATION

To this point the more obvious elements of articles, topic, research method, references, and length, have been considered. However, there is another critical element — the authors themselves. Some background on the authors is considered with the purpose of gathering additional information on how The Accounting Review changed over time.

The doctoral education and the primary affiliations of the Leading Authors are reported in Table 10. The Ph.D. information was obtained from the Comprehensive Dissertation Index, 1861-1972 [Xerox University Microfilms, 1973] while the primary affiliation information was obtained from The Accounting Review.23 As such, the primary affiliation information, given in chronological order, spans the time that an author was actively publishing in The Accounting Review during the 1946-1965 period.24

All but two of the Leading Authors earned a Ph.D. The only exceptions are Kohler (a Leading Author of 1926-1945) and

23Mary Murphy was not listed in the Comprehensive Dissertation Index, 1861-1973 [Xerox University Microfilms, 1973] since it covers only American schools. However, Professor Gary Jorden, at California State University at Los Angeles (her old school), graciously supplied the name of her doctoral granting institution. The Accounting Faculty Directory 1987 [Hasselback, 1987] shows her as having earned a Ph.D. in 1938.

24Since the primary affiliations are in chronological order, the University of Chicago is listed twice for Charles Horngren. After earning his Ph.D. from Chicago in 1955, Horngren taught at Marquette University, then at University of Wisconsin-Milwaukee, and returned to the University of Chicago in 1959 [Burns, 1990]. Marquette University is not listed in Table 10 because Horngren did not publish an article in The Accounting Review while there (the primary affiliations in Table 10 are taken from articles published in The Accounting Review).
Table 10

Doctoral Programs and Primary Affiliations

<table>
<thead>
<tr>
<th>Author</th>
<th>Ph.D. (School-Year)</th>
<th>Primary Affiliations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Murphy</td>
<td>London School of</td>
<td>Hunter College; Los Angeles State College</td>
</tr>
<tr>
<td></td>
<td>Economics — 1938</td>
<td></td>
</tr>
<tr>
<td>Harold Avery</td>
<td>Columbia U. — 1941</td>
<td>Bradley Polytechnic Institute; Union College</td>
</tr>
<tr>
<td>Harold Bierman</td>
<td>U. of Michigan — 1955</td>
<td>U. of Chicago; Cornell U.</td>
</tr>
<tr>
<td>William Campfield</td>
<td>U. of Illinois — 1951</td>
<td>U. of San Francisco; Army Audit Agency</td>
</tr>
<tr>
<td>A. C. Littleton</td>
<td>U. of Illinois — 1931</td>
<td>U. of Illinois</td>
</tr>
<tr>
<td>Sidney Simon</td>
<td>New York U. — 1950</td>
<td>Rutgers U.</td>
</tr>
<tr>
<td>Frank Singer</td>
<td>Indiana U. — 1955</td>
<td>U. of Massachusetts</td>
</tr>
<tr>
<td>Lawrence Benninger</td>
<td>U. of Missouri — 1949</td>
<td>Bowling Green State U.; U. of Missouri; U. of Alabama; U. of Florida</td>
</tr>
<tr>
<td>Sidney Davidson</td>
<td>U. of Michigan — 1952</td>
<td>Johns Hopkins; U. of Chicago</td>
</tr>
<tr>
<td>George Husband</td>
<td>U. of Michigan — 1932</td>
<td>Wayne U.</td>
</tr>
<tr>
<td>Robert Jaedicke</td>
<td>U. of Minnesota — 1957</td>
<td>Harvard U.; Stanford U.</td>
</tr>
<tr>
<td>E. H. Kohler</td>
<td>None</td>
<td>Consulting Accountant, Chicago</td>
</tr>
<tr>
<td>John Myers</td>
<td>Northwestern U. — 1943</td>
<td>Northwestern U.</td>
</tr>
<tr>
<td>Ralph Snyder</td>
<td>None</td>
<td>Geo. S. Olive &amp; Co.</td>
</tr>
<tr>
<td>George Staubus</td>
<td>U. of Chicago — 1954</td>
<td>U. of Chicago; U. of California, Berkeley</td>
</tr>
</tbody>
</table>
Snyder. This is a dramatic change from the first twenty years of *The Accounting Review* when only 11 of the 19 Leading Authors had earned a Ph.D.\textsuperscript{25} Similarly, there was a trend toward academe and away from practice with respect to the primary affiliations of the authors. Table 10 shows that only four of 22 authors (18\%) held positions outside the academe while publishing in *The Accounting Review*. During the 1926-1945 period five of 19 authors (26\%) held positions outside of academe while publishing in *The Accounting Review*. In addition, based on “University Notes” and “Association Notes” published in *The Accounting Review*, four other early authors held significant nonacademic positions. Thus, nine of 19 authors (47\%) during 1926-1945 had significant practical experience while publishing in *The Accounting Review*. A similar review for the 1946-1965 period did not disclose significant practical positions for any of the Leading Authors at the time that they were holding a university appointment.\textsuperscript{26} Thus, 1946-1965 appears to be the period in which the authorship of *The Accounting Review* was changing toward the current, almost exclusive, Ph.D.-university affiliated authorship.

Two of the Leading Authors during 1946-1965 served as Editor of *The Accounting Review*. Littleton was Editor from 1944-1947 while Mautz was Editor from 1960-1962. What is notable about this is that Littleton was also a Leading Author of *The Accounting Review* during 1926-1945 when a practical orientation dominated the journal. Mautz, although not a Leading Author in the earlier time period, had practical experience with Alexander Grant & Co. Thus, one would expect that these individuals would tend to ac-

\textsuperscript{25}Fleming, Graci and Thompson [1990] reported that ten of the Leading Authors from 1926-1945 had earned a Ph.D. However, in private correspondence Professor Gary Previts was kind enough to point out that DR Scott also earned a Ph.D. Although DR Scott is not listed in the *Comprehensive Dissertation Index* (the source used by Fleming, Graci and Thompson), with the help of Professor Emeritus Joseph Silvoso at the University of Missouri (DR Scott’s old school) and an archives librarian at Harvard University, it was confirmed that DR Scott had, in fact, earned a Ph.D. from Harvard in 1930.

\textsuperscript{26}This does not imply that the Leading Authors of 1946-1965 were without any practical experience. For example, Davidson served as a consultant to the Maryland Commission on Revision of Public Service Commission Law, Staubus took a leave of absence as a faculty resident with Arthur Andersen & Co., and Van Voorhis was Chief Cost Accountant for the Woodlands Department of West Virginia Pulp and Paper Company prior to joining the faculty at the University of Alabama. (This biographical information, as well as that regarding other authors noted elsewhere, is based on “University Notes” and “Association Notes” published in *The Accounting Review* unless stated otherwise).
cept practically oriented papers for publication. The same can be said of Frank Smith, a Leading Author during 1926-1945, who served as Editor from 1950-1959. Since these three individuals account for most of the editorial duties of *The Accounting Review* from 1946-1965, their views likely played a large role in the orientation of *The Accounting Review* during the period.

**SUMMARY AND CONCLUDING REMARKS**

There is no simple answer about the role that the period 1946-1965 played in the evolution of accounting research as published in *The Accounting Review*. In some ways, it was an extension of the 1926-1945 period; in others, it was a transitional state leading up to the mid-1960s and beyond. In terms of the articles of the Leading Authors, it was an extension with regard to: (a) the continued, although somewhat diminished, interest in financial accounting; (b) the lack of interest in auditing and tax articles; (c) the primary reliance upon deductive type research methods; (d) the continued, though somewhat diminished, interest in specific financial accounting subtopics; (e) the relatively small number of references, with books being cited more frequently than journal articles; and (f) the brevity of the articles.

On the other hand, the articles changed in regard to: (a) greater diversity in topics, especially educational and managerial ones; (b) greater diversity in financial accounting subtopics; (c) the number of references to accounting journals rather than to journals from other disciplines; and (d) the large number of references to *The Accounting Review*. In addition, the authorship changed. The Leading Authors of 1946-1965 tended to have more formal education and less practical experience than their counterparts of 1926-1945.

Thus, *The Accounting Review*, while exhibiting many of the same characteristics of the 1926-1945 period, was changing during the 1946-1965 period. It was not simply an extension of the earlier period.

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27 The three other Editors during the period were Robert Dixon (1948-1949), Lawrence Vance (1963-1964) and Wendell Trumbull (1965-1967). Each of them earned Ph.D.s and were affiliated with universities while they published in *The Accounting Review* and served as Editor. Yet, they may have had a practical orientation as well. For instance, Vance worked for Peat, Marwick, Mitchell & Co. for seven years prior to joining the faculty at the University of California at Berkeley. The three Editors during 1926-1945, Paton, Kohler and Littleton, were each Leading Authors during that period.
period. In particular, as is currently the case with recent contributions to The Accounting Review, there was greater diversity of topics during 1946-1965 than 1926-1945. Similarly, the changing authorship of the Leading Authors toward those with Ph.D.s and university affiliations is indicative of recent contributors to The Accounting Review. In these ways the 1946-1965 period served to bridge the gap between the earlier period and today. However, with respect to research methods, number of citations and length of articles, the 1946-1965 period cannot account for the transition to the current quantitative/empirical orientation of The Accounting Review.

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Fleming, Graci and Thompson: Tracing the Evolution of Research


The Ohio State University, "Accounting Hall of Fame and Alumni Breakfast," Columbus: College of Business, The Ohio State University (August 13, 1991).


AN EXPLORATORY STUDY OF EARLY EMPIRICISM IN U.S. ACCOUNTING LITERATURE

Abstract: Little or nothing is said of empiricism in U.S. accounting literature during the first half of the twentieth century in accounting history literature. The objectives of this study are threefold: (1) to determine if an empirical accounting literature existed prior to 1950; (2) to determine if pre-1950 empiricism was extensive enough and substantive enough to have influenced the development of accounting thought; and (3) to compare pre-1950 empirical work with contemporary academic research. It is concluded that empirics were common prior to 1950 from examining a sample (approximately forty percent) of volumes (clusters) of The Accounting Review, The Journal of Accountancy, Michigan Business Review, The American Accountant and the N.A.C.A. Bulletin. One hundred eighteen articles and eleven books and monographs are classified as “empirical” in this study.

A sample was drawn from the books and monographs and classified using several recently developed taxonomies of accounting literature. This sample included works in several accounting specializations and also included works by both academic and non-academic authors from all of the journals. The empirics found in most of the studies were essential to the studies and not peripheral. However, inferential statistics were rarely used and the designs of the studies were very primitive. The sample yielded no evidence of a transition to a contemporary hypothetico-deductive paradigm. While not common, there were attempts at “positivism.” However, the authors of most financial accounting studies were concerned with normative theory. Empiricism was extensive enough and substantive enough to have had considerable influence on normative theorists and the development of the accounting literature of the period.

This research was made possible, in part, by a grant from the KPMG Peat Marwick Faculty Development Fund at the University of Delaware. The authors wish to thank Barbara Merino, Richard Vangermeersch, Araya Debessay, Scott Jones, Fred Stiner, and three anonymous referees for their valuable comments.
Most students of accounting research have some familiarity with the normative, non-empirical work of American accounting authors of the first half of the twentieth century. Paton, Littleton, Sweeney, and others are well known. However, little is known about the empirical literature of the period. Consider, for example, when Ball [1971] reported the bibliography of empirical work in accounting prepared at the University of Chicago, the bibliography contained only twelve entries dated prior to 1950. Even though most accounting historians recognize that Ball’s list is far from being complete, early empiricism has been ignored in accounting history literature. There seems to be no substantive discussion or investigation of the contribution of empiricism to the development of accounting thought in the United States. Thus, it is risky to make general statements as to the extent of early empiricism, the types of literature that utilized real data, or the relationship of the early literature to the contemporary empiricism that dominates modern academic accounting literature. This lack of knowledge about early empiricism provides unnecessary bounds on theories of the development of accounting thought.

This paper partially fills this void in accounting history literature by providing an exploratory examination of the nature of pre-1950 empiricism. This is accomplished by identifying and reviewing a sample of the empirical accounting literature published in the United States prior to 1950. Also, some characteristics of pre-1950 empiricism are compared with contemporary academic research. The objectives of this exercise are to provide evidence of the role of empiricism in the early literature and of the relationship of the early work to contemporary academic accounting literature. The relationship is examined by classifying the sample according to several taxonomies applied to accounting literature. The taxonomies are Brown and Vasarhelyi’s [1985] Mode of Reasoning, Research Method, and School of Thought taxonomies; Vasarhelyi, et al. [1988] Foundation Discipline, Accounting Area, and Information Sources taxonomies; Watts and Zimmerman’s [1986] four-class taxonomy of the transition of accounting research; and Antil’s [1989] two-class transition taxonomy. Brown, Gardner, and Vasarhelyi [1987] also use the Research Method and Foundation Discipline taxonomies.

Several other taxonomies of the development of accounting thought are found in the literature. In this research project, the authors would have liked to compare the sample with classifications suggested in these taxonomies. Unfortunately, the classifica-
tions are not compatible with the data obtained from the study. Furthermore the sample size of observations related to the taxons within a taxonomy is too small to be useful. For example, the sample of theory-based financial accounting studies used here is too small to support an evaluation of Flamholtz's [1977] pre-1950 classifications and the data are not related to Previts and Merino's [1979] discussions of pre-1950 accounting literature.

The sections describing the classifications of the sample are followed by an overview of the role of empiricism in pre-1950 accounting literature. The paper then speculates on some of the determinants of the development of accounting literature in the section preceding the "Summary."

A much more extensive and varied literature than anticipated was discovered in the process of selecting the sample upon which this paper is based. Work falling within this study's definition of empiricism was common and related to almost all areas of accounting. Early empiricism performed an information function and was extensive and substantive enough to have provided a basis for induction for much of the normative theory of the time. However, no beginning of the contemporary hypothetico-deductive academic accounting literature was observed.

Comparison of the sample used in this research with contemporary literature suggests several variables that might affect the development of accounting literature. Data processing technology, the academic environment, the state of the art of other academic disciplines, the background and training of accounting authors, and the institutional environment of accounting are thought to be determinants of the form and content of accounting literature that might explain, at least partially, the differences between the sampled research and contemporary academic accounting literature.

OPERATIONAL DEFINITION OF "EMPIRICAL"

In this paper, "empiricism" is examined in the context that the typical contemporary academic accountant might use the word. There is no intent here to consider or confront any formal philosophical concepts of empiricism. Most of the pre-1950 works included in Ball's index included some sort of tabulated real data or reported summary statistics extracted from studies; however, the Merriam-Webster Dictionary defines "empirical" more generally as "depending or based on experience or observation." Ball's definition, suggested by the absence of case studies and similar descrip-
tive work, is unacceptably narrow. Yet the substantive definition provided by the dictionary is too broad to provide the bounds of what is normally considered empiricism by contemporary researchers. Therefore, for purposes of this paper, empirical research is operationally interpreted to include any work that uses, identifies, and reports observations of real events. Both descriptive studies and inferential studies properly fall within this definition.

The primary variation of the work identified by this study as empirical from those works listed by Ball is the admission of case studies. The absence of case studies from Ball’s list may be intentional in that he does not consider case studies as empiricism or, given the incompleteness of his list, the absence of case studies may be coincidence. Both explanations are plausible. In this paper, the authors take the position that case studies are properly classified as empirical. The authors of this paper refer to Brown, et al. [1987] and Vasarhelyi, et al. [1988] for support for this position. Both sets of these researchers include the taxon, “Empirical-Case,” in their “Research Method.”

Judgment was necessary in classifying many articles as “empirical” or “non-empirical” even with our operational definition. An example of this type of article that was excluded, but might be classified as “empirical” is Bowles’ [1933] discussion of trends in statement presentation of “non-current gains and losses” and the proper treatment of these items. Another example is Danford’s [1931] description of variance analysis at ARMCO. Bias in the identification of sampling units is towards omitting appropriate observations rather than the converse.

THE SAMPLE

The publications examined are the twelve listed by Ball plus twenty-seven randomly selected publications. The theoretical population of interest is work coming within the operational definition of empiricism that was published in the United States prior to 1950. The only available list of such published empirical work is Ball’s “Index of Empirical Work in Accounting.” Recognition that this list is incomplete provided the original stimulus for this study. The original intention of the authors was to complete the list and review the identified work. It quickly became obvious that the quantity of early empiricism is much more extensive than had been anticipated. Completing the list and reviewing all entries would be much too costly since the text of each candidate for the empirical classification had to be examined and, if the taxonomies
were to be utilized, perform a content analysis of each of the works. Thus, sampling was used in order to maximize the descriptive power of this study.

The frame (operationally defined population) from which the sample is drawn is pre-1950 issues of *The Accounting Review, Journal of Accountancy, The American Accountant, N.A.C.A. Bulletin,* and *Michigan Business Studies.* A two-stage sampling plan with cluster sampling comprising the first stage is the standard approach when there is no existing list of elements within the frame.\(^1\) Bound volumes of the journals making up the frame provide natural clusters, thus the articles and literature reviews were examined in randomly selected pre-1950 volumes of the journals making up the frame for accounting publications coming within the definition of empiricism. When a published work not published in one of the five journals, but reviewed in one of the volumes selected, appeared to be a likely empirical work the authors of this study obtained a copy of the work and examined it for possible classification as “empirical.”

The clusters (volumes) amounted to about forty percent of the total pre-1950 volumes of the series examined. One hundred eighteen articles and eleven books or monographs have been identified from the clusters as being eligible for inclusion in the sample.\(^2\) The primary purpose in selecting clusters was to identify possible sampling units at reasonable cost without disturbing probability relationships. Once the partial list was complete, twenty-seven works were randomly selected from the list of articles and books. Appendix I is a chronological, annotated bibliography of the thirty-nine works (the twelve listed by Ball plus the twenty-seven randomly selected works) included in the study. A potential bias is introduced into the sample with the inclusion of the twelve entries from Ball’s bibliography. These twelve entries were included on the contingency that they might, somehow, be significantly different from the randomly selected entries. Inspection of the two classes of works reveals no discernible differences except for the absence of case studies in Ball’s bibliography; therefore, no formal analysis is performed or reported. Other than the potential sam-

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\(^1\)For a classical treatise on sampling theory and the design of sampling plans, see Cochran [1977]. For a less technical, but useful and practical guide for designing sampling plans, see Schaeffer, Mendenhall and Ott [1986].

\(^2\)The list of pre-1950 publications identified as “empirical” is available from the authors upon request.
pling bias just described, the authors are not aware of any risk or bias other than those normally associated with sampling.

The sample selection process reveals a much more extensive and varied literature than anticipated. There is a much larger number of sources that report actual observations than is implied by accounting history literature. This early empirical literature provided inductive possibilities for the normative theorists of the period. The research design used here does not, however, provide any evidence of specific use of reported empirics in inducing normative positions. To gain such insight, the authors would have to review the early literature on the particular problem and place the empirical work in the temporal context of that literature to provide evidence of the contribution of the empirical work to the normative theory. This is beyond the scope of this study. However, this study does indicate some possibilities for such future research.

Another interesting question arises concerning trends in methodology and other taxons. Again, the research design does not permit any useful conjecture about trends. To do so would require stratifying the sample by period and drawing a much larger sample. Enough is learned in this study, however, to permit an interested researcher to design a study within reasonable cost constraints to search for trends in methodology or other characteristics.

THE VASARHELYI, BAO AND BECK TAXONOMIES

Accounting Area

Table 1 describes the sample by number of works in each accounting area in each journal. The classification by accounting area provides the first application of one of the literature taxonomies. Table 1 contains a modified version of Vasarhelyi, et al. Accounting Area taxonomy. The literature sample classified by Vasarhelyi, et al. was selected so that education and professional development articles were a null set, thus there was no need for that particular taxon. Yet the sample used here suggests that education and professional development articles represented a substantial portion (20% of the sample) of early empiricism, so an Education and Professional Development taxon was added.

Vasarhelyi, et al. do not provide any statistics describing their sample by accounting area so no comparisons are made with contemporary literature, but two interesting characteristics are suggested by the classification of the sample. First, real data were
Table 1

Distribution of Sample of Early Empiricism by Journal and Accounting Area

<table>
<thead>
<tr>
<th>Journal</th>
<th>Financial</th>
<th>Managerial</th>
<th>Tax</th>
<th>Auditing</th>
<th>Information</th>
<th>Education and Professional Development</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Accountant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Accounting Review</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td></td>
<td>5</td>
<td></td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Journal of Accountancy</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Michigan Business Studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>NACA Bulletin</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Other Periodicals</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Books, Monographs, etc.</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>8</td>
<td>7</td>
<td>39</td>
</tr>
</tbody>
</table>
used by authors of articles in almost all accounting areas. Second, there was a large proportion of articles on non-accounting problems in the accounting literature. The subjects of four of the articles in the “other” classification are management topics, one is on proper organization of natural monopolies, one was a call for regulation of public holding companies, and the only accounting article in the “other” classification deals with governmental accounting. Thus six (15% of the total sample or 23% of the sample drawn from accounting journals) of the seven articles in the “other” classification have “non-accounting” subjects.

Research Method

Classification of the primary research method for the publications is reported in Table 2. Four of the eight “Archival-Primary” classifications used financial statements as the primary information source and the other article derived descriptive statistics from university catalogues. The works in the “Archival-Secondary” taxon were either normative arguments that abstracted data from other publications to support a position or reviews of studies that were based on descriptive studies.

Vasarhelyi, et al. [1988, p. 57] indicate that the three main Research Method taxons for contemporary academic research are Analytical-Internal Logic (51%), Archival-Primary (22%), and Empirical-Laboratory (10%). The sample definition used here restricts the sample to works that report real observations and thus limits comparability with Vasarhelyi, et al.; particularly since the definition eliminates most studies where internal logic was the primary research method. Yet, if the differences in the sample definition is recognized, comparing the two samples provides evidence of the differences between contemporary and early empiricism.

There are several striking differences in the two samples. “Analytical-Simulation,” a taxon that accounted for sixty-four studies in the Vasarhelyi, et al. study is, of course, a research approach only feasible after the advent of computers, thus we would not expect our sample to contain any works using this approach even if such studies came within our definition of “empirical.” There are no “Empirical-Laboratory” studies in this sample, yet this taxon contained ten percent of the Vasarhelyi, et al. sample. Other notable differences are the “Archival-Secondary,” “Empirical-Case,” and “Opinion-Survey” taxons. Several of the sampled works are classified as “Archival-Secondary” were review articles that abstracted data from other publications and three of
Table 2

Classification by Research Method

<table>
<thead>
<tr>
<th>Taxonomy</th>
<th>Sample of Early Empiricism</th>
<th>Modern Academic Work Reported by Vasarhelyi, et al.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Works</td>
<td>% of Works</td>
</tr>
<tr>
<td>Analytical-internal logic</td>
<td>-0-</td>
<td>-0-%</td>
</tr>
<tr>
<td>Archival-primary</td>
<td>8</td>
<td>21%</td>
</tr>
<tr>
<td>Archival-secondary</td>
<td>8</td>
<td>21%</td>
</tr>
<tr>
<td>Empirical-Case</td>
<td>6</td>
<td>15%</td>
</tr>
<tr>
<td>Empirical-field</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Empirical-laboratory</td>
<td>-0-</td>
<td>-0-%</td>
</tr>
<tr>
<td>Opinion-survey</td>
<td>9</td>
<td>23%</td>
</tr>
<tr>
<td>Mixed</td>
<td>6</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>39</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Classification of Mixed Research Methods — Early Empiricism

<table>
<thead>
<tr>
<th>Number of Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Logic and Archival-primary</td>
</tr>
<tr>
<td>Internal Logic and Opinion-survey</td>
</tr>
<tr>
<td>Archival-primary and Opinion-survey</td>
</tr>
</tbody>
</table>

| Total | 6 |

the articles were no more than abstracts of academic studies published in non-academic journals. Review articles are still common in academic literature, but the abstract-type articles are not. Elimination of the abstract-type articles makes the early and contemporary proportions of "Archival-Secondary" more comparable. The greater frequency of "Empirical-Case" and "Opinion-Survey" articles in this sample may be accounted for by the greater participation of "non-academic" authors in the sample of early empiricism and by the contempt of contemporary editors of academic journals and dissertation chairman for these research methods.

Table 3 describes the professional affiliation of authors in each of the journals. The journals in the sample cannot be classi-
### Table 3

**Professional Affiliation of Authors by Journal**

<table>
<thead>
<tr>
<th>Journal</th>
<th>Number of Authors by Professional Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Review</td>
<td>7</td>
</tr>
<tr>
<td>American Accountant</td>
<td>1</td>
</tr>
<tr>
<td>Certified Pub. Acct.</td>
<td>1</td>
</tr>
<tr>
<td>Harvard Business Rev.</td>
<td>6</td>
</tr>
<tr>
<td>Jnl. of Accountancy</td>
<td>1</td>
</tr>
<tr>
<td>Michigan Bus. Studies</td>
<td>1</td>
</tr>
<tr>
<td>N.A.C.A. Bulletin</td>
<td>1</td>
</tr>
<tr>
<td>Book/Monograph</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>41</td>
</tr>
</tbody>
</table>

**Sample of Early Empiricism**

<table>
<thead>
<tr>
<th>Professional Editor or Research Staff</th>
<th>Number of Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>17</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
<tr>
<td>Unidentified</td>
<td>3</td>
</tr>
</tbody>
</table>

**Number of Authors by Professional Affiliation**

<table>
<thead>
<tr>
<th>Academic</th>
<th>Public Accounting</th>
<th>Industry</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>
fied as academic and non-academic if the criterion is the professional affiliation of the authors. The professional affiliation of authors in *The Accounting Review, The American Accountant*, and the *Journal of Accountancy* is similar. Although we provide no comparative statistics, few will dispute that the appearance of a non-academic author in a contemporary issue of *The Accounting Review* is indeed a rarity. Those non-academic authors publishing in *The Accounting Review* and other accounting journals of the pre-1950 period wrote about things they knew — the operations and methods of firms with which they were associated.

The presence of non-academic authors in the journal articles sampled in this study, partially accounts for the greater proportion of case studies in the sample, but the question of most significance in explaining the development of academic literature is why non-academic authors were present in academic journals then and not now. Of course, non-academics were as competent with the dominant methodology as academics in the early period and probably had more access to data. On the other hand, few non-academics have the research capabilities required to put together a paper for a contemporary academic journal. However, the authors of this paper propose the hypothesis that increased competition for journal space by academics would create an effective barrier to would-be non-academic authors even if they had the requisite research skills. In general, the divergence of the academic and practice cultures over the years has resulted in the disappearance of common goals. Also, what is currently considered empirical accounting research lies outside the domain of accounting practice. Nissley's [1929] article on the Bureau of Placements is interesting within the context of the recent Bricker and Previts [1990] article on the current practitioner/academic schism. Bricker and Previts identify an earlier schism partly precipitated by the Bureau of Placements' concentrating primarily on liberal arts colleges that did not have accounting curricula. Nissley's article is an obvious attempt to placate academics.

**School of Thought**

The classification of the sample using the “School of Thought” taxonomy produced twenty-three observations in the “Accounting Theory” taxon and one in the “Institutional.” The “other” taxon contains fifteen observations despite very liberal interpretation of the content of the “Accounting Theory” taxon. The authors of this paper interpreted the Accounting Theory taxon to
include works that had some connection with financial accounting theory, managerial accounting theory, and auditing theory.

**Table 4**  
**School of Thought**

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Sample of Early Empiricism</th>
<th>Modern Academic Reported by Vasarhelyi, <em>et al.</em></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Works</td>
<td>Percentage</td>
</tr>
<tr>
<td>Behavioral (All Taxons)</td>
<td>-0-</td>
<td>-0-%</td>
</tr>
<tr>
<td>Statistical Modeling (All Taxons)</td>
<td>-0-</td>
<td>-0-%</td>
</tr>
<tr>
<td>Accounting Theory</td>
<td>23</td>
<td>56%</td>
</tr>
<tr>
<td>Accounting History</td>
<td>-0-</td>
<td>-0-%</td>
</tr>
<tr>
<td>Institutional</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>41%</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Composition of the “Other” Taxon — Sample of Early Empiricism**

<table>
<thead>
<tr>
<th>Number of Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional (but not accounting or accounting regulatory institutions)</td>
</tr>
<tr>
<td>Management</td>
</tr>
<tr>
<td>Professional Development and Education</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Explanations for the differences for some of the taxons appear obvious. Most of the behavioral statistical modeling techniques were not developed or were developed late in the period from which the “Early Empiricism” sample was drawn. Vasarhelyi, *et al.* define the “Institutional” taxon narrowly in that it applies primarily to accounting regulatory agency literature and there were fewer accounting regulatory agencies and the primary accounting regulatory groups currently existing did not exist during the first twenty-seven years of the forty-three year period from which the sample was drawn. Education articles are outside the

All of the early accounting history articles which the researchers reviewed used a narrative style without use of statistical data. Thus, the absence of “history” from our sample is expected. Also, there could be a body of non-empirical accounting literature published prior to 1950 that deals with the Committee on Accounting Procedure and the SEC, thus properly classifiable as “Institutional” in the “School of Thought” taxonomy. There is no assurance that accounting researchers would have used the approaches indicated by the “Behavioral” and “Statistical Modeling” taxons even if the methods had existed prior to 1950. The basic methods of classical statistical inference had been or were developed in the early twentieth century. Yet none of the authors in the sample reported testing for statistical significance even though it would have been appropriate in several of the studies. Two of the more obvious explanations for the absence of the use of inferential statistics for theoretical predictions are that accountants (academic and practicing) were not trained in classical statistics and editors avoided reporting statistical tests of predictions. Both explanations probably frequently operated jointly.

**Mode of Reasoning**

Table 5 reports the application of the “Mode of Reasoning” taxonomy to our sample and the corresponding percentages for the Vasarhelyi, et al. sample where such percentages have been reported. The “Mixed” taxon was, of course, used when two “modes” were considered of approximately equal importance for the publication.

The presentation of data in accounting literature prior to 1950 was generally for one of two reasons. The most common reason was to describe the accounting treatment of some element of financial statements. The next most common reason was to provide descriptive statistics to support a theoretical position. Yet even those works that were primarily presentations of descriptive statis-
Table 5
Mode of Reasoning

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Sample of Early Empiricism</th>
<th>Modern Academic Reported by Vasarhelyi, et al.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Works</td>
<td>Percentage</td>
</tr>
<tr>
<td>Descriptive Statistics</td>
<td>15</td>
<td>38%</td>
</tr>
<tr>
<td>Correlation</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>Quantitative-Analytical</td>
<td>-0-</td>
<td>-0-%</td>
</tr>
<tr>
<td>Qualitative</td>
<td>13</td>
<td>33%</td>
</tr>
<tr>
<td>Mixed</td>
<td>10</td>
<td>26%</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100%</td>
</tr>
</tbody>
</table>

Mixed Modes of Reasoning

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Number of Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive Statistics and Qualitative</td>
<td>9</td>
</tr>
<tr>
<td>Descriptive Statistics and Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
</tr>
</tbody>
</table>

tics contained a discussion of the theoretical merit of the various treatments or opinions.

Table 6 describes the distribution of the data evaluation and presentation techniques. The New York State Society Committee on Inventory Verification [1930], Magor [1942], Williams [1947], and Child [1949] did not present any data or discuss any summary statistics. With the exception of Warshaw [1924], those that used graphs or basic statistical tools also provided tables and tabulations of raw data. Warshaw only used graphs of inventory and price movements to illustrate his income smoothing argument for base stock inventory methods. Those that used basic statistical indicators were: (1) Burrell [1929] reported the correlation coefficients of his accounting aptitude test and standardized general aptitude tests with the final grades in the first accounting course of his test groups of college freshmen; (2) the review of the Ohio State study of the operating ratios of transient hotels in *The American Accountant* [1931] reported and discussed the meaning of the
standard error of the estimate as well as the means the ratios; (3) Wood, Traxler, and Nissley [1948] disclosed means and ranges as well as graphs; and (4) Jones [1949] used means, ranges, standard deviations, and graphs. None of the studies had a statistical test for the significance of variables.

Table 6

Data Evaluation and Presentation Techniques
used in the Sample of Early Empiricism

<table>
<thead>
<tr>
<th>Techniques Used</th>
<th>Number of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data presented or discussed</td>
<td>4</td>
</tr>
<tr>
<td>Verbal description and indication of selected summary indicators only</td>
<td>15</td>
</tr>
<tr>
<td>Tables and/or tabulations of Raw Data</td>
<td>19</td>
</tr>
<tr>
<td>Some basic statistical indicators</td>
<td>4</td>
</tr>
<tr>
<td>Graphs</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>44*</td>
</tr>
</tbody>
</table>

*Some studies used more than one technique.

The use of data and its presentation (or lack thereof) was clearly adequate for the objectives of a number of the publications. For example, additional data would have contributed little to the case studies of company systems and procedures. Also, Mitchell's case studies of financial statements [November, 1906; December, 1906; June, 1907] and Pierson's [1907] case study of the Philadelphia Gas Works were complete and would not have benefitted from more elaborate design. Stockwell's [1910] and Warshaw's [1924] data supplement their articles adequately. However, when one moves from case studies, many of the publications would have benefited from even the most primitive design considerations and/or data disclosures. For example, Williams [1947] provides examples of unusual financial statement treatments, but he provides no indication of the number of statements he examined or of the frequencies with which he observed specific treatments. The deficiencies of Williams' paper were typical of several of the publications that utilized more than a small number of observations.

Foundation Discipline

Table 7 contains the “Foundation Discipline” classification and the corresponding proportions reported by Vasarhelyi, et al.
The comparative numbers are surprising, not for the differences, rather for the similar proportions of economics/finance-based articles. If we drop education articles which were excluded from the Vasarhelyi, et al. sample, then the “Economics/Finance” taxon contains 23% of the Early Empiricism sample compared to 18% for the contemporary academic sample.

Table 7

Foundation Discipline

<table>
<thead>
<tr>
<th>Taxon</th>
<th>Sample of Early Empiricism</th>
<th>Modern Academic Vasarhelyi, et al.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Works</td>
<td>Percentage</td>
</tr>
<tr>
<td>Psychology</td>
<td>-0-</td>
<td>-0%</td>
</tr>
<tr>
<td>Economics, Finance</td>
<td>6</td>
<td>15%</td>
</tr>
<tr>
<td>Engineering, Communications</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>Mathematics/Decision/Game Theory</td>
<td>-0-</td>
<td>-0%</td>
</tr>
<tr>
<td>Accounting</td>
<td>23</td>
<td>59%</td>
</tr>
<tr>
<td>Management</td>
<td>6</td>
<td>15%</td>
</tr>
<tr>
<td>Education</td>
<td>3</td>
<td>8%</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>100%</td>
</tr>
</tbody>
</table>

The early articles classified as “Economics/Finance” were those that were obviously relying on those foundation disciplines. The 15% sampled in this research may be an understatement. This can be and probably should be tested by drawing a sample of economics and finance literature and making a comparison. However, such a test is beyond the scope of the objectives of this paper and, in the authors’ opinion, should be approached as a separate study with the accounting and economics sample being drawn from the body of literature existing in the first half of the twentieth century and not limited to empirical based studies.

The “Management” based articles dealt with management problems, not accounting problems. Thus accounting authors were not drawing on management methods to investigate accounting problems. When this is considered, “Accounting” based works are 71% of the portion of the sample compared to 44% in the Vasarhelyi, et al. sample. The accounting researchers of the early period were much less likely to draw upon the research method-
ologies of other disciplines to solve accounting research problems than contemporary researchers. The greater likelihood of contemporary researchers drawing on methods from other disciplines must be attributed, at least in part, to the relatively recent development of the borrowed methods.

WATTS AND ZIMMERMAN'S TAXONOMY OF EVOLUTION

Watts and Zimmerman [1986] provide the following periods of the evolution of financial accounting theory (pp. 4-7):

- Late nineteenth and early twentieth century
  - Researchers observed practices and developed pedagogical classification rules.
- After the Securities Acts until the later 1960s
  - Normative theory development.
- Late 1960s until mid-1970s
  - Tests of existing normative theories and the relationships of accounting numbers and economic variables.
- Mid-1970s until now
  - Positive theory development.

Watts and Zimmerman’s first two classifications do not hold for works sampled for this study. For example, the three analyses by Mitchell [November, 1906; December, 1906; June, 1907] all compared financial statements with theoretically correct standards. Five of the nine entries prior to the passage of the Securities Acts that dealt with financial accounting gave substantive consideration to theoretical aspects of the problem being considered. Conversely, six of the eleven papers published after the Securities Acts and concerned with financial accounting were descriptions of practices without substantive consideration of theory. Watts and Zimmerman’s classification scheme would have been more precise if their first two eras had been combined and they had observed that both normative theory and observation of existing practices were common in the literature during the first half of the twentieth century. Obviously their fourth “era” description is not valid either. Market studies continue to flourish and historical and non-positivist studies may be increasing in importance in the evolution of financial accounting theory. Therefore the authors suggest that the fourth classification reflects either extreme naiveté or is a clear example of the “self-interest” assumption that is basic to Watts and Zimmerman’s work. The authors suggest further that Watts and Zimmerman are not naive.
Two authors (Hornberger [1929] and Clendenin [1941]) did investigate why managers made certain accounting choices. Previts and Merino [1978] also recognize early positivism (or explanatory theory) in the surveys conducted by the N.A.C.A. research staff in the late 1930s and early 1940s. They note a 1940 movement in which surveys of management accounting methods were “extended to find out not only what practice was being used but also why such practices were used” (p. 278). So there was some attempt to explain why accounting choices were made, but the sample used in this research suggests that such attempts at “positive” theory were infrequent and not a common attribute of early empiricism.

ANTIL’S TAXONOMY OF EVOLUTION

Antil [1989] provides a somewhat similar, but more comprehensive, classification with his assertion that accounting modeling has moved from implementation to explanation (p. 103). The “implementation” classification includes Watts and Zimmerman’s periods through the late 1960s and “explanation” would include contemporary positive theories. With the exception of two articles, all works on accounting in the sample are either directed toward developing normative accounting methods or describing accounting practices without attempting to explain (predict) why the object of study takes the particular form being observed. All of the studies that were directed towards identifying frequency of use of specific accounting methods or techniques provide the opportunity for authors to speculate on motivational determinants of such usage. Such induction would reflect the infancy of contemporary explanatory (positive) research. Yet only two of the authors bother to speculate on why particular methods were used. Thus, the data in the sampled research supports the Antil contention that early literature was primarily concerned with implementation.

THE ROLE OF EARLY EMPIRICISM

It is concluded that, based on research results, early empiricism contributed to accounting in two ways: (1) it fulfilled an information function that has been taken over by other sources now such as the AICPA’s Current Trends and Techniques and (2) it provided a basis from which certain normative concepts were induced. The information function is obvious from the research sampled in this study. For example, Stockwell [1910], Hornberger [1929], Clendenin [1941], and the Research and Technical Service
Department, N.A.C.A. [1941] provide surveys of accounting methods used to account for specific events.

The sample of research studies also indicates that early empirical works provided the data from which some positive, as well as normative, concepts could have been induced. All of the surveys mentioned above plus case studies, such as those of Mitchell ([November, 1906], [December, 1906], [1907]), provide such data even though the authors do not utilize the data to make inferences. In addition, there are works in the sample in which the authors have made inferences that may have influenced accounting and management thought. For example, Pierson [1906] concluded that private operation of utilities with government regulation provides the best organizational arrangement for such enterprises. Fullington [1916] concluded that proper disclosure of government activities will result in public pressure that brings about efficient government operation. Van Vlissinger [1929] identified benefits from centralization and decentralization of accounting functions and Cannon [1948] recognized the need for capitalizing financial leases. While the authors of this study cannot conclude that studies such as these directly led to specific changes in accounting and business thought, the authors believe that the studies were of such substance that it is likely that they influenced the work of normative theorists.

SPECULATION ON SOME DETERMINANTS OF ACCOUNTING LITERATURE

Watts and Zimmerman [1979] attracted a great deal of attention with their "Market for Excuses." Although the explanatory power of their theory has been effectively questioned in the literature, there has been no further attempt at explaining the development of accounting theories or accounting literature. Lowe, Puxty, and Laughlin [1983] provide a strong argument against oversimplifying the complex process of the development of accounting theory and literature. The accounting literature of any period is certainly the result of a complex process, yet the final objective of any study of that literature must be to increase the understanding of the factors that operated to create that literature. It seems appropriate to go beyond description and to suggest some determinants of the content of accounting literature that are consistent with the descriptions in this paper.

The most obvious determinant of changes in accounting literature is the advent and availability of the computer. The
Vasarhelyi, *et al.* taxon, "Analytical-Simulation," which generally is composed of non-empirical studies according to this paper's operational definition was a null set prior to development of computers. Simulation was just not feasible for accounting studies without the existence and availability of computers. Computer development and accessibility also contributed to the use of more sophisticated design and statistical analysis in accounting literature. Thus, these developments suggests that available technology is an important determinant of the form and content of accounting literature.

If accounting research borrows theories and research methods from other academic disciplines, then accounting literature is surely influenced by the state of art in related disciplines. Some of the taxons identified by Brown, *et al.* and Vasarhelyi, *et al.* are dependent upon borrowed methods, particularly from agency theory and information economics, that did not exist during the period from which the research sampled in this study is drawn.

There were, however, techniques available prior to 1950 that were not used, but would have been helpful in several of the studies. Therefore another variable, training and background of academic accountants, in addition to those already identified helps to explain the degree to which accounting researchers exploit methods and theories from other disciplines. Only a very small portion of the faculty in Briggs' [1930] sample were Ph.D.s. These early faculty surely had less training in (borrowed) research methodology than most contemporary accounting faculty. Also, their training and background most likely resulted in their interests being more closely aligned with those of practitioners and more distant from other academic disciplines and the university as a whole than contemporary accounting faculty.

One might reasonably hypothesize that senior accounting faculty that remain active in research are doing research primarily for psychic reward rather than direct financial reward. Because they are operating in an environment that values the methods of natural and social sciences and humanities more than methods (whatever they might be?) that would bring approval of the practice community, these senior faculty will emulate their more prestigious university colleagues in other disciplines. The academic journals and Ph.D. programs are in the hands of this particular set of faculty; therefore, new accounting faculty must emulate them if they are to survive as academics. Both the awareness and interest required to stimulate borrowing from other disciplines to the ex-
tent that it is done today appears to have been absent during the formative years of modern academic accounting literature.

Another comparison suggesting an explanatory variable is the change in the "Institutional" taxon within the "School of Thought" taxonomy. Only one of the works in the sample fits the rather restrictive definition of "institutional" used by Vasarhelyi, et al., yet that empirical work on regulation constitutes an extensive and important body of work in contemporary accounting literature. Much of the increase in interest in research on institutions can be attributed to change in the institutional environment within which accounting operates. While we do not subscribe to the Watts and Zimmerman [1979] thesis that justification for regulatory purposes accounts for the demand for accounting theory, the institutional environment of accounting and business certainly affects the content of accounting literature. Therefore the authors are convinced that the "Market for Excuses" variable is operating as one of many variables that determine the body of accounting literature.

The authors of this paper have proposed that some of the variables appropriate for an explanatory (predictive) model of accounting literature are the development and availability of data accumulation and analysis technology (hardware), the body of knowledge of related disciplines, the background and training of accounting researchers, and the institutional environment of accounting. It is easy to identify other candidates for inclusion in such a model, but the descriptions of early empiricism in this paper are consistent with these proposed variables.

SUMMARY

Shank's [1981, p. 100] observation that "Empirical research in accounting is essentially a phenomenon of the past twenty years" (now thirty years) is accurate only if descriptive empiricism is ignored. If one is willing to accept descriptive statistics and case studies as "empiricism," then empiricism was common in accounting literature prior to 1950. A more precise statement by Shank is that the use of inferential statistical tests of theoretical predictions is essentially a phenomenon of the past thirty years.

Early empiricism was the work of both academics and non-academics. Academics published in non-academic journals and non-academics published in academic journals. While the data reported in some publications added little to the work in which it was included, empiricism was central to most of the items in the
sample. The studies were primitive by contemporary standards because little attention was paid to experimental design and statistical tools in these early studies.

Accounting specialties represented in the sample were diverse. Several of the studies were directed toward determining reporting techniques or methods. Studies related to management or government were frequently case studies. Articles on accounting education and professional development described curricula and professional opportunities. Three of the articles on professional development were "advocacy" type articles that were intended to promote and defend activities of the AIA or of an academic institution.

The objectives of using and reporting real world observations were primarily to report the use of accounting methods, to describe the application and functioning of information systems, to publicize the activity of institutions, or to support a normative position. In a few cases the observations were used to make normative inferences and two authors attempted to discover the rationale for the variations in treatment of an accounting event. However, interest in explanatory theory appears minimal and no formal tests of theory were found.

The design limitations of this paper prevent the identification of the specific contribution of empiricism to the induction of theoretical positions. However, the study does reveal that the work of early empiricists was of broad enough scope and detail to have permitted the induction of a wide range of theoretical concepts. Therefore, empiricism may have made a much greater contribution to accounting thought than is reflected in historical accounting literature.

Further investigation of the role of early empiricism in the development of accounting thought will be interesting. A potentially useful avenue for investigation is to evaluate the temporal relationship between the publication of certain empirical-based works and the appearance of normative positions. For example, did Cannon's [1948] article on the materiality of financial leases precede the call for recognition of these lease obligations as a liability in the normative literature? Potentially even more rewarding is an investigation of empiricism from 1950 through 1965. It is with the literature of this period that one will be able to observe the transition from sole use of descriptive statistics to early inferential tests.
APPENDIX

Annotated Bibliography of Works Included in the Sample

1906


This is the first of a series of eleven sets of case studies that appeared in each issue of the *Journal of Accountancy* through September, 1907. The statements of American Locomotive Company (fiscal year ended June 30, 1906) and Distillers Securities Corporation (1905 and 1906) were analyzed with the objective of determining if “the reports rendered to stockholders contain such information as will enable them to exercise intelligent judgment with respect to the fidelity, efficiency and economy of corporate trustees and agents.” (p. 42)


The second of the series of case studies. This case study has the same objectives and procedures as the preceding analysis. The statements of the Chicago, Rock Island, and Pacific Railway Company from 1901 through 1906 were the subject of this analysis.


This is a case study of the private and public operation of Philadelphia Gas Works (1834-1906). He concludes that the best arrangement for operating a similar franchise is by private operation with government acting in a “watchdog” role.

1907


Mitchell discusses perceived material items specific to the particular statements being analyzed. This analysis was of the 1906 annual report of the Tennessee Coal, Iron and Railroad Company.

1909


Stockwell discusses the theory, practices, and bookkeeping for acquisition and maintenance of long-lived operating assets. The empirical portion of the paper, the description of practices, is a relatively minor part of the paper.

1916


The thesis of this article is that proper disclosure will result in public pressure to control spending. This case study is a description of the transition in the Ohio budgetary system in 1914 and 1915.
1924


The objective of this paper was to argue the merit of the base stock inventory method. Warshaw compares the income performance of the National Lead Company with that of ten other companies from 1915 through 1922.

1927


The objective was to describe business education at the University of Nebraska. The data on graduates was gathered by questionnaire.


Taylor's objective was to evaluate the state operation of a flour mill. He describes the legislative and financing history of the North Dakota venture in this case study. Also, he presents the 1926 balance sheet for the milling company and related numbers and discusses the cause of the unfavorable financial position.

1928


Nissley's objective was to describe the work of the Bureau (AIA) and answer criticism of accounting professors. Data was obtained by questionnaire sent to AIA members admitted during 1917 through 1928 and from the records of placements by the Bureau.

1929


Atkin's objective was to describe a course in cost accounting that met the needs of both advanced undergraduate and graduate students. Empirics were used to describe existing courses. He reviewed 295 college catalogues, 88 of which listed cost accounting courses. Questionnaires were sent to the eighty-eight colleges listing cost accounting courses and thirty-four responses were received. Catalog descriptions were used for non-respondents.


This project had the joint objectives of the development of an instrument to evaluate student aptitude for accounting and to evaluate faculty. The sample consisted of 225 freshmen taking the first accounting course in 1927 and 350 in 1928.


Hornberger's objective was to describe how corporations account for no-par stock and to determine the rational for the treatments. He examined financial statements for the treatment of 1,213 stock issues of 614 utilities
and 599 industrials. An undisclosed number of managers were then inter-
viewed to determine why they used a particular method.


Van Vlissinger's objective was to discuss the effect of organizational structure change and office systems redesign on costs. The data upon which the article was based was one thousand questionnaire responses from offices large enough to have a management problem and an unspecified number of interviews with accounting and budget officers. The survey results and anecdotes are reported in the paper.


Yoakum's objective was to provide information on career opportunities and difficulties in accounting. Data were obtained from a questionnaire sent to 250 persons taking three or more accounting courses at the University of Michigan from 1916 through 1926.

1930


Briggs' objective was to describe accounting taught in AASCB accounting programs. He obviously used program and course catalogues from member schools as his data source.


The objective of this brief article was to review an Ohio State report of case studies of department store treatment of sales returns and to present significant statistics from the report.


This was the report of the Committee which surveyed some unspecified number of accountants. The report, a discussion of the data collected with no position taken, contains no indication of procedures or methodology.

1931


This review of a report prepared by the Department of Hotel Administration, Cornell was probably prepared by one of the professional editors of *The American Accountant*. Average ratios and standard error of estimates are presented and the meaning of the standard error is discussed.


Wasserman's objective was to describe the French proposals (theories) for inflation adjusted accounting following World War I. The bulk of the article is a description of these theories. The empirical portion identifies the
French price changes during this period and is used to demonstrate the sustained nature of inflation in France from 1918 through 1927.

1932


FitzPatrick's objective was to compare ratios of successful firms with unsuccessful firms. He obtained financial data from Moody's and Poor's Industrial Manuals for three years. Neither firms nor periods were specified.


The purpose of this editorial is to identify some of the unacceptable business and accounting practices of large public holding companies and to recommend action for the correction of the abuses. Kohler reviews the history of unacceptable practices of a large public utility investment-holding company to illustrate his points.

1934


The objective of this article was to discuss a survey of distribution costs of manufacturers (312) firms conducted by the Association of National Advertisers.

1941


Clendenin's objective was to identify the accounting methods used for discounts on retired bonds and the motives for the selection of the methods. Data was obtained from 180 questionnaires for which 118 responses were received.


The objective was to determine how companies were accounting for increased labor costs (overtime, training, etc.) and overhead in non-defense activities that resulted from war induced demand for all goods. Data for 263 companies was obtained from questionnaires distributed at N.A.C.A. meetings to chapter members "best qualified to supply the information desired."

1942


Devine's objective was to investigate the "effects of various inventory valuation methods on the reported income stream." (p. 111) His real data were the inventory numbers and related information 1933 through 1938 reported by Wilson [1939] for an unidentified firm that processed cotton.

This case study describes the development and implementation of a salary plan for positions within the York Ice Machinery Corporation.

**1947**


Borth examined the 1946 statements of twenty-five Chicago banks and made qualitative judgments based on reporting standards current at the time.


King's objective was to illustrate the effect of FIFO and LIFO. Most of the paper is directed towards specifying IRS requirements for inventory valuations. The empirics appear as if they were an afterthought and contribute nothing to the paper.


This is a normative discussion of the treatment of bond discount and expense upon refunding with a survey of the methods used and the amounts involved. Data (treatment of discount and expense, assets, liabilities, and the amount of discount and expense) for thirty-four refundings by thirty industrial firms and thirty-one refundings of thirty utilities were displayed.


Littleton's objective was to determine what auditors do by determining the frequency of verb usage in audit literature. A content analysis of the work of five unidentified authors (1,720 pages of auditing literature) was performed and the frequency and distribution by author of commonly used verbs was reported.


This is a brief summary of Roper's [1948] survey with the theme that the public does not understand financial statements.


Williams' objective was to describe changes in terminology and statement format used in published financial statements. No data was presented other than examples of departures from standard terminology and format.

**1948**


The objective was to discuss the problem of price changes and its resolution within the historical cost model. The data source and methodology were author examination of "about 150 representative published corporate
financial statements [for fiscal years ending in 1946 and early 1947] ... to ascertain the elements in the determination of net income for the period." (p. 470)


Cannon’s objective was to describe the materiality of sale-lease back activity and to discuss appropriate accounting. He presents data on the off-balance sheet financial lease financing of four corporations (Allied Stores Corporation, J. C. Penney Company, Safeway Stores, Inc., and Montgomery Ward & Co., Inc.) for 1946. Lease data on other firms is presented in anecdotal style. Cannon calls for statement recognition of financial lease activity.


The Controllership Foundation commissioned Roper to determine what the public was interested in about financial statements and corporate affairs. Questionnaires and interviews were used and the report provides tabulation of the questionnaires and excerpts from in-depth interviews. After a preliminary pilot study (754 interviews) to determine the economic distribution of stock ownership, a national cross-section of the population stratified into three economic levels was sent questionnaires and 4,259 responses were obtained. Also, 1,242 corporate employees completed questionnaires and a portion were interviewed, 59 large investors were interviewed, 61 financial analysts and bankers were interviewed, and 88 labor union officials were interviewed between January 26 and April 23, 1948.


The objective of the article was to describe the development of the AIA testing program and all aspects of the program are discussed. The sample size varied with the portion of the program, but results were available for over 25,000 exams.

1949


Child describes the internal audit function within a large Canadian meat packer. The article includes sample audit programs for accounts receivable and inventories and anecdotes of the internal auditors performing special assignments and detecting defalcations.


Jones' objective was to demonstrate the impact of price change accounting on reported income of nine unidentified steel companies from 1941 through 1947.

* Included in Ball's Index.
OTHER REFERENCES


SUBSTANCE AND SEMANTICS IN THE AUDITOR’S STANDARD REPORT

Abstract: The most recent effort at restating the auditor's standard report, SAS 58, is the most comprehensive statement of the auditor's role that has ever been adopted. It is an acknowledgment that the previous report had become an ineffective communication of the audit function and was perhaps too cautious in circumscribing the auditor's public responsibilities. This paper compares and analyzes the terminology of the standard report throughout the profession's history with particular emphasis on the recent years leading up to SAS 58. An exhibit compares the parallel terminology and the social, economic and political issues that resulted in each revision. Additionally, some assessment of the potential future changes to the report are presented.

"In a simple matter such as an auditor's certificate we fail to see why any legal interference is called for. What the public and shareholders want is a readable assurance from the accountants, stating in plain English what they really have done" [The Accountant, 1883].

This statement is as fitting today for the public accounting profession in the United States as it was more than 100 years ago in the United Kingdom. The public accounting profession then, as now, was searching for an effective statement to the public and the shareholder that would tell “what they really have done” when an audit had been performed. The profession has responded many times to this same request by modifying the auditor’s standard report to be a more effective communication. However, the gap between the reality of what the auditor has done and the public and shareholder’s perception of what has been done has persisted, or is at least repeatedly reopened.

The “gap” that has been the focus of discussion for more than a decade has two dimensions, a semantic dimension and a substance dimension. The semantic dimension is concerned with the common understanding of the terms and concepts used in the auditor’s standard report. Terms and concepts used may have dif-
ferent meanings for the professional accountant and the public. The substance dimension of the "gap" concerns the beliefs and expectations of the public and shareholders regarding the work of the auditor and the assurance that should be provided versus the work and assurances that the auditor is willing or able to provide.

The historical development of auditing and the audit report has been the result of several influences that may be characterized as political, social, economic, legal, and professional [Choi, 1984; Kaplan, 1987]. These influences often have had an interdependent and collective effect on auditing developments, yet a particular influence may appear to have been the predominant influence. For example, auditing developments of the preregulation period were predominantly influenced by economic factors. Without legislated directives, audits were primarily based on management's cost-benefit assessment. During this period, other influences, such as the Federal Reserve Board, the accounting profession, and later, the New York Stock Exchange, were working to establish uniformity for auditing, audit reports and financial reports. In the 1930s, legislation established that the social welfare must be protected by auditing and financial reporting standards. Since that time, the Securities and Exchange Commission, accounting profession, business interests, and individuals seeking legal restitution have influenced the development of auditing and audit reporting standards.

The interaction of these various interests is illustrated well by the McKesson-Robbins case. Plaintiffs seeking financial restitution were successful because a major weakness was exposed in auditing procedure. The accounting profession responded by changing audit procedure and changing the audit report accordingly. The SEC also responded to the audit deficiencies identified in the McKesson-Robbins case and prescribed certain auditing and reporting procedures. The accounting profession quickly responded a second time and incorporated the directives of the SEC. While the details of these events are presented later in this paper, the discussion here is sufficient to illustrate the interactive and collective affect of several influences in the development of auditing procedures and the audit report.

An effective illustration of semantic and substantive changes to the audit report can also be found in the changes made to the report following the McKesson-Robbins case. Prior to the case, the report referred to the auditor's interview of management as an audit procedure. The deception perpetrated by management in the case was embarrassing because it suggested naivete, vulnerability,
and perhaps, lack of independence. Reference to this procedure was dropped from the audit report, even though the interview procedure continued and is still a useful procedure. It was a semantic change rather than a substantive change. A semantic change that has remained somewhat enigmatic was the change from "fairly present" to "present fairly." Substantive changes also resulted from the McKesson-Robbins case. As noted above, auditing procedures were expanded to verify certain assets and the audit report generally described these changes of auditing procedure.

This paper describes the semantic and substantive changes to the standard audit report in the past century, and suggests possible future semantic and substantive changes.

The public accounting profession's most recent effort at restating the auditor's standard report, Statement on Auditing Standards No. 58 — "Reports on Audited Financial Statements" [AICPA, 1988], is the most comprehensive statement of the auditor's role that has ever been adopted. As in previous versions of the auditor's standard report, the words and concepts were carefully selected. In SAS No. 58, however, the Auditing Standards Board appears to have taken special care in selecting terminology that would be appropriate professionally and that would convey an accurate understanding for public users. This observation is given perspective, when the new standard is compared to the versions that have existed in the past, and when the dynamics of social, economic and political forces that have shaped each successive version are evaluated.

This discussion will focus on the historical development of the auditor's standard report, from the early versions to the form prescribed in SAS No. 58. Particular emphasis is placed on the terms and concepts that were added, deleted and modified in successive versions. Some of these changes were based on substantive changes in the work of the auditor. A summary and comparison exhibit is presented, to enhance understanding of the historical development and the changing terminology. Finally, observations are made about possible future semantic and substantive changes.

COMPARATIVE ANALYSIS OF THE AUDIT REPORTS

The development of the standard audit report in the United States will be analyzed, with particular attention given to the terms and phrases that were used in audit reports and the influences that led to the changes in the report. As noted above, SAS No. 58 requires the most comprehensive report form in history. It
requires that the report explicitly address the responsibilities of the auditor, the work which the auditor performs, and the assurance which the auditor provides [Roussey, 1988]. Exhibit I presents an analysis of the terms and phrases prescribed in SAS No. 58 on the basis of three categories (responsibilities, work, and assurance). The terms and phrases of each of the preceding versions of the report are also analyzed on the basis of these three categories. For the purpose of comparison, a parallel concept or meaning that has appeared in one or more versions is presented on the same line in each column. For example, the degree of accuracy for the auditor's assurance has been expressed by three different phrases since 1917 and several before 1917. Since they were all expressions of the degree of accuracy, they were presented on the same line of the exhibit. A term or phrase that does not have a parallel expression in another version of the report is presented on a line by itself, such as the term "independent" as expressed in the report title required by SAS No. 58. The events or circumstances (economic, political, social, legal, or professional) that precipitated the change are noted in a summary form at the top of each column.

Perhaps the most common public impression of accountants is that they are quantitative experts, able to express business events numerically. A study of the development of the standard audit report, as shown in the summary and comparison and as discussed in the following sections, makes it clear that standard setting for the auditing profession also requires the skill of a semanticist.

**BRITISH INFLUENCE**

The auditing profession in the United States evolved from British origins in the nineteenth century. Two major aspects of British history contributed to the development of the professional accountant and the accountant's work product, the audit. First, the history of financial crisis, bankruptcies and governmental control over bankrupt entities increased the demand for expert accountants to serve the interest of the public. Second, the re-establishment of the joint-stock company created a demand for the professional auditor.

The history of business in nineteenth century England is a succession of prosperity, crisis and depression [Littleton, 1933]. The inevitable consequences of these recurring periods of depression were heavy financial losses and business failures. Under-
standably, bankruptcy occupied the public mind a great deal. Parliament, unable to control the swings of reckless speculation and convulsive panic, attempted to develop constructive legislation in the years following each crisis, to secure better protection for creditors. Each statute placed responsibility on an individual or individuals for administering the bankrupt's estate to the best interest of all concerned. Naturally, a substantial amount of accounting work was involved, to maintain accurate accounts and to insure that the statements were correct. Knowledgeable accountants experienced increasing demand. The legislated necessity of expert and trustworthy accountants to provide an accurate and equitable report to the public on the affairs of bankrupt entities was a significant development for professional accountancy and for the audit function [Littleton, 1933].

A second major development was the restoration of the joint-stock company. The abuses of the eighteenth century stock companies had culminated in the Bubble Act of 1719, which prohibited joint stock companies. After more than 100 years, a new act again permitted joint stock companies to be formed. The act was careful to provide some safeguards against the actions of promoters and directors. Certain sections required auditing of the accounts by someone independent of management, and either an auditor's special report on the accounts or a confirmation of management's report. Every auditor was to be supplied with a copy of the company balance sheet to examine. He was then required to report to the shareholders "whether in (his) opinion the balance sheet is a full and fair balance sheet containing particulars required by these regulations and properly drawn up so as to exhibit a true and correct view of the state of the company's affairs" (Sec. 94) [Littleton, 1933]. This report, in effect, constituted a certificate. Until 1900, it appears to have been general practice for auditors merely to sign balance sheets or to add some phrase such as "audited and found correct" [Hopkins, 1984].

The British experience in the development of the auditing profession, in particular the development of the auditor's report, is relevant and instructive because the accounting system, auditing process, and audit reports in the United States were derived from the British experience. It is particularly important to note that the social, economic, and political events in England led to the legislated establishment of the auditor and the content of the auditor's report long before legislation addressed the auditor's role in the United States. The British experience, therefore, provided a useful reference for practice in the United States, particularly up to the
### Exhibit 1

Evolution of the Standard Short-Form Audit Report

<table>
<thead>
<tr>
<th>Year of Report Change</th>
<th>1988</th>
<th>1948</th>
<th>1941</th>
<th>1939</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motivation for Report Change</strong>&lt;br&gt;(Economic, Social, Legal, Political, Professional)</td>
<td>Governmental investigation&lt;br&gt;Profession's investigation&lt;br&gt;Litigation&lt;br&gt;Legislation</td>
<td>AICPA's response to the SEC's 1941 report</td>
<td>SEC's report following the McKesson and other audit failure cases</td>
<td>AIA's response to the McKesson and other audit failure cases</td>
</tr>
<tr>
<td><strong>Content of the Auditor's Standard Short-Form Report</strong>&lt;br&gt;1. Responsibilities&lt;br&gt;a. Relationship of the Auditor and Management</td>
<td>“Independent” stated in the report title</td>
<td>Express an Opinion on management's financial statement</td>
<td>Examined the BS, IS &amp; Surplus&lt;br&gt;Examined in accordance with GAAS &amp; other auditing procedures considered necessary</td>
<td>Examined the BS, IS &amp; Surplus&lt;br&gt;Examined in accordance with GAAS &amp; procedures considered necessary</td>
</tr>
<tr>
<td>b. Work of Auditor</td>
<td>Audit the BS, IS&lt;br&gt;RE, SCF&lt;br&gt;Conducted in accordance with GAAS</td>
<td>Examining or Tested the accounting records &amp; other supporting evidence by methods &amp; to the extent appropriate&lt;br&gt;Without a Detailed Audit of transactions&lt;br&gt;Reviewed the system of internal control</td>
<td></td>
<td>Examined or Tested the accounting records &amp; other supporting evidence by methods &amp; to the extent appropriate&lt;br&gt;Without a Detailed Audit of transactions&lt;br&gt;Reviewed the system of internal control</td>
</tr>
<tr>
<td>2. Work&lt;br&gt;a. General Procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Specific Procedures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Assurance&lt;br&gt;a. Basis</td>
<td>in our opinion</td>
<td>in our opinion</td>
<td>in our opinion</td>
<td>in our opinion</td>
</tr>
<tr>
<td>b. Degree of Accuracy</td>
<td>present fairly in all material respects</td>
<td>present fairly</td>
<td>present fairly</td>
<td>present fairly</td>
</tr>
<tr>
<td>c. Comparability &amp; Authoritative Guidance</td>
<td>GAAP</td>
<td>GAAP applied on a basis consistent with the preceding year</td>
<td>GAAP applied on a basis consistent with the preceding year</td>
<td>GAAP applied on a basis consistent with the preceding year</td>
</tr>
<tr>
<td>1934</td>
<td>1931</td>
<td>1929</td>
<td>1917</td>
<td>Before 1917</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>Securities Act of 1933, 1934, market crash, depression, New Deal politics &amp; economics, senate investigations</td>
<td>Ultramares case-third party liability standard established</td>
<td>Income statement added: AIA/FRB &quot;Verification of Financial statements&quot;</td>
<td>&quot;Uniform Accounting&quot;. AIA/FRB, to promote more uniform accounting</td>
<td>Extension of the British system of accounting &amp; reporting</td>
</tr>
</tbody>
</table>

- Examined the BS, IS & Surplus
- Examined the accounts
- Examined the accounts
- Audited the accounts
- Examined or audited the book & accounts
- Examined or Tested the accounting records & other supporting evidence
- Without a Detailed Audit of transactions
- Obtained information & explanations from officers & employees
- General Review of the accounting methods & the operating & income account
- "in our opinion" present fairly
- set forth
- ... certify that... in our opinion
- set forth
- ... certify that... in our opinion
- set forth
- ... certify that... in our opinion
- "property drawn," true," "correctly present"

"Certify" is more clearly related to the "plan" than the "opinion"
point where legislation and case law began to define the auditor's role [Cochrane, 1950].

EARLY VERSIONS OF THE AMERICAN AUDITOR'S REPORT (1890 TO 1916)

While the Companies Act of 1900 and subsequent acts prescribed the contents of the auditor's report for British audits, the lack of statutory requirements for audits in the United States meant that the client likely perceived that the benefits of a detailed audit would exceed the costs. It is not surprising then that in most cases the detailed audit procedure of the British accountants was viewed as too costly. Without the uniformity of audit objective and procedure, it is not surprising that the audit report was also not uniform. The auditors variously described their work as an audit or examination of the books, the accounts, or both the books and accounts. Assurance was expressed by stating that "we (the auditors) certify that, in our opinion, the balance sheet" either "correctly sets forth;" "exhibits a true and correct view;" "accurately accords conditions;" "represents the true financial position;" or "is a true and correct transcript of the assets and liabilities appearing on the books." The separate responsibilities of the auditor and management were not explicitly addressed [Edwards, 1960], [Flesher, 1980], [Montgomery, 1916].

AN ATTEMPT AT STANDARDIZATION (1917)

The varied expressions found in the auditor's report led to confusion and misunderstanding. Many shareholders believed that the auditor's report represented a guarantee [Flesher, 1980]. The Federal Trade Commission requested that the American Institute of Accountants (AIA) prepare a booklet entitled A Memorandum on Balance Sheet Audits. The Federal Reserve Board (FRB) published it in the Federal Reserve Bulletin of April 1917 and subsequently reprinted it under the titles Uniform Accounting: A Tentative Proposal by the Federal Reserve Board and Approved Methods for the Preparation of the Balance Sheet Statements. The booklet suggested that the auditor's report have the following wording:

I have audited the books and accounts of Blank and Co. for the period from . . . to . . . and I certify that the above balance sheet and statement of profit and loss have been made in accordance with the plan suggested and advised by the Federal Reserve Board and in my opinion set forth the financial condition of the firm at . . . [Carey, 1969].
The work of the auditor is described by the brief phrase “audited the books and accounts.” The basis of the auditor’s assurance is opinion. The accuracy characteristic may be viewed as having two dimensions. First, the report certifies that the balance sheet and the statement of profit and loss (shown without support as one figure on the balance sheet) are in accordance with the suggested plan of the FRB, the first reference to an authoritative source for guidance in determining appropriate accounting numbers and disclosure. The second aspect of accuracy is that the statements “set forth” the financial condition of the firm, which is less specific than the terms “true and correct” previously used.

Because the FRB lacked legislative authority to prescribe accounting practice, diversity persisted in accounting practice and reporting. Later, in the 1920s, accountants began to object to certain deceptive accounting practices by making qualifications to their reports with the phrase “subject to” [Flesher, 1984].

THE INCOME STATEMENT GAINS PROMINENCE (1929)

In 1929, a committee of the AIA revised and retitled the booklet, *Verification of Financial Statements*, and it was published by the FRB. The suggested auditor’s report form was as follows:

I have examined the accounts of . . . Company for the period from . . . to . . . I certify that the accompanying balance sheet and statement of profit and loss, in my opinion, set forth the financial condition of the company at . . . and the results of operations for the period [Carey, 1969].

The terminology describing the general work of the auditor was changed from “audited the accounts” to “examined the accounts.” Regarding the basis of assurance, the auditor certified that an opinion was being expressed. Regarding assurance of accuracy of the statements, the term “set forth” was retained from the previous version. Prior to 1929, the results of operations had been presented as a single profit or loss number. This practice was changed; a detailed profit or loss statement was to accompany the balance sheet. (The British Companies Act of 1929 also initiated the requirement that a detailed profit and loss statement accompany the balance sheet.) [Hopkins, 1984] Although information from prior years was to be included with the statements, comparability was not mentioned in the report. Reference to the FRB was dropped.
ULTRAMARES AND THIRD PARTY LIABILITY (1931)

The Ultramares case in 1931 increased the awareness of the importance of the words used in the report. The Ultramares case was a third party lawsuit against an accounting firm. The charge was negligence in the performance of an audit. The court ruled that, in the case of negligence, the auditor was only liable to his client. If the auditor’s performance was proven to be gross negligence or fraud, however, the auditor was responsible to third parties. Following Ultramares, the Journal of Accountancy (July 1931) reported that “the word ‘certify’ which had been used for many years was inappropriate and should be abandoned.” Its use conveyed that accounting data was subject to precise measurement and that the auditor was capable of guaranteeing exactness [Brasseaux, 1972]. The word “certify” was dropped from the report. Clearly the omission of this term did not alter the nature of the assurance, which was “opinion.” Additionally, the accounting profession hoped that the report would no longer be referred to as a “certificate” [Murphy, 1952].

LEGISLATIVE AUTHORITY — THE FIRST STANDARD REPORT (1934)

In the years immediately following the 1929 stock market crash, the public understandably viewed the business community with fear and mistrust [Flesher, 1980]. Business leaders and the accounting profession recognized the desirability of restoring the public trust. With that purpose in mind, conferences began between a committee of the New York Stock Exchange (NYSE) and a special committee of the AIA. In January 1933, the NYSE began to require annual audits by independent auditors before a corporation could be listed. In this same period of time, the Securities and Exchange Commission (SEC) was formed to articulate accounting standards for companies that publicly traded their securities. The SEC was given the power to prescribe the form and content of the auditor’s certificate:

The certificate of the accountant or accountants shall be dated, shall be reasonably comprehensive as to the scope of the audit made, and shall state clearly the opinion of the accountant or accountants in respect to the financial statements of, and the accounting principles and procedures followed by, the person or persons whose statements are furnished . . . Nothing in this rule shall be construed to imply authority for the omission of any pro-
procedure which independent public accountants would ordi-
narily employ in the course of a regular annual audit
[Greidingen, 1939].

Supported by the authority of the NYSE and the SEC, the
suggested report form of the AIA became the first standard audi-
tor's report. The SEC's rule requiring a comprehensive scope and
clear opinion was addressed by dividing the report into two para-
graphs, one paragraph to discuss the scope or work of the audit,
the other to discuss the opinion or assurance given by the auditor. The report was as follows:

We have made an examination of the balance sheet of the
XYZ Company as of December 31, 1933, and of the state-
ment of income and surplus for the year 1933. In connec-
tion therewith, we examined or tested accounting records
of the company and other supporting evidence and ob-
tained information and explanations from officers and
employees of the company; we also made a general re-
view of the accounting methods and of the operating and
income accounts for the year, but we did not make a
detailed audit of the transactions.

In our opinion based upon such examination, the accom-
panying balance sheet and related statement of income
and surplus fairly present, in accordance with accepted
principles of accounting consistently maintained by the
company during the year under review, its position at
December 31, 1933, and the results of its operations for
the year [Murphy, 1952].

The relatively detailed description of the auditor's work
was a significant change from previous recommendations. The
auditor's work was described as "an examination of the balance
sheet and the statement of income and surplus" rather than "an
examination of the accounts." Following this general statement,
the specific audit work was described: "examined or tested ac-
counting records and other supporting evidence," "obtained in-
formation and explanations from officers and employees",
"made a general review of the accounting methods and of the
operating and income accounts." The last phrase emphasized
the limited nature of the audit work, "we did not make a de-
tailed audit of the transactions."

The second paragraph described the basis of the auditor's as-
surance as, "In our opinion." Regarding assurance of the accuracy
of the statements, the phrase "fairly present" replaced the phrase
"set forth." The term "fairly present" suggested that judgment was involved in the measurement and disclosure of economic events. The phrase "present fairly" was a much discussed alternative.

The frame of reference for determining a fair presentation was noted as "accepted principles of accounting." This is the first reference to the profession's body of knowledge as an authoritative source for guidance in determining appropriate accounting numbers and disclosure.

A concluding feature of the auditor's assurance was that the accounting principles used by the company were "consistently maintained," thereby asserting the comparability of the numbers presented in the current period with the numbers of preceding periods. It is logical and understandable that accounting principles would have to be consistently maintained to produce statements that were a fair presentation, but an explicit statement on this point added emphasis. Any material changes in accounting principles or their application were to be disclosed.

The AIA did not recommend a title for the report, but did instruct that the report be addressed to the directors of the company or the stockholders if the appointment was made by them.

At the time of this major revision in the auditor's report, the business and political climate was characterized by change in the New Deal era. Of concern to the accounting profession was the creation of the SEC in 1934, with authority to prescribe accounting practice. In the next four years, the SEC was fully occupied with the development of its own organization and with the problems of the capital markets. Consequently, the Commission did not begin to evaluate and prescribe accounting and auditing standards. At the same time, many leaders in the accounting profession were concerned about the ramifications of having the profession directed by a government agency. Through the offices of the AIA, leaders of the profession approached the SEC to offer to assume the authority for establishing accounting standards. In 1938, in a close vote, that proposal was approved. The Commission retained an oversight responsibility and the right to intervene should the AIA develop an inappropriate standard or fail to deal with an issue that the Commission felt needed attention [Wyatt, 1987].

It is important to recognize that the Commission's action to transfer the responsibility for developing accounting standards and auditing practice to a private sector entity was not approved by Congress in 1938 or at any subsequent date. The arrangement
is therefore sustained on the basis of convenience, convention and acceptable performance.

McKESSON & ROBBINS —
THE PROFESSION'S RESPONSE (1939)

The McKesson & Robbins Company fraudulently overstated assets in its audited 1937 financial statements. Despite traditional audit steps being followed, the fraud went undetected by the auditors. This deception was created by fictitious entities and fictitious documentation and the deception succeeded because accounts receivable were not confirmed, inventory was not physically verified, bank balances were verified by company documents only, and intercompany sales were not examined [Greidinger, 1939]. The SEC and the AIA studied this case to evaluate the adequacy of audit procedures.

Before the SEC's evaluation was made known, the AIA adopted the report, *Extensions of Auditing Procedure*. The purpose of the report was to correct the failures of past audit procedures as evidenced in the *McKesson & Robbins* case [Journal of Accountancy, 1941]. This report was formally approved in September 1939, and was the first *Statement on Auditing Procedure*. The statement presented a broad view of an auditor's duties and outlined new procedures for auditing inventories and confirming receivables. A new audit report form introduced an emphasis on internal control.

We have examined the balance sheet of the XYZ Company as of April 30, 1939, and the statements of income and surplus for the fiscal year then ended, have reviewed the system of internal control and the accounting procedures of the company and, without making a detailed audit of the transactions, have examined or tested accounting records of the company and other supporting evidence, by methods and to the extent we deemed appropriate.

In our opinion, the accompanying balance sheet and related statements of income and surplus present fairly the position of the XYZ Company at April 30, 1939, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

There were several changes to the work and assurance paragraphs of the 1933 version of the report. The general work was
still described as an examination of the balance sheet and state-
ments of income and surplus. However, the description of the
specific work of the audit was significantly changed. The report
retained the phrase “examined or tested accounting records and
other supporting evidence,” but added the qualification “by meth-
ods and to the extent we deemed appropriate.” This qualifying
phrase clearly highlighted the judgment aspect of audit procedure.
The phrase “without a detailed audit of the transactions,” was
retained from the 1933 version.

Perhaps the most significant amendment in response to past
audit deficiencies was the statement that the auditor has “re-
viewed the system of internal control and the accounting proce-
dures.” Related to that adjustment was the deletion of the phrase
“obtained information and explanations from officers and employ-
ees.” Although auditors continued to obtain information from of-
icers and employees in conducting an audit, the McKesson case
had made this statement a source of embarrassment and sug-
gested a lack of independence.

Also deleted was the phrase “general review of the accounting
methods and of the operating and income accounts.” In view of
the other expressions, this phrase appeared redundant.

The assurance section of the auditor’s report still began “In
our opinion,” to describe the nature of the assurance. The phrase
to describe the accuracy of the statements was changed to
“present fairly” from “fairly present.” Although this change was
extensively debated, the significance of this change was not dis-
closed [Flesher, 1980]. The authoritative source of guidance in
selecting accounting principles was changed to “generally ac-
cepted accounting principles” from simply “accepted accounting
principles” suggesting that wide acceptance among accounting
professionals was required.

To enhance the assurance of comparability and clarify the
application of this concept, the new version stated that the prin-
ciples were “applied on a basis consistent with that of the preced-
ing year” rather than simply “consistently maintained during the
year under review.”

McKESSON & ROBBINS —
THE SEC’S RESPONSE (1941)

After the McKesson & Robbins hearings, the SEC issued a
report that was critical of the audit conducted by Price
Waterhouse and Co. Even though the auditor had followed gener-
ally accepted auditing procedures, the Commission stated that the firm had not followed a policy of wisdom and reasonableness to assess the true financial condition.

The Commission recommended that the auditor's report be amended to include a "clear certification" that the audit was adequate for the expression of an independent opinion [Journal of Accountancy, 1941]. This recommendation was implemented in the SEC's amended regulation S-X, Rule 2.02(b), which required a statement of the scope of the audit and a specific disclosure of any generally accepted auditing procedures that had been omitted.

The revised auditor's report altered the 1939 version by adding one sentence to the scope of the paragraph.

Our examination was made in accordance with generally accepted auditing standards applicable in the circumstances and included all procedures which we considered necessary.

In effect, this requirement represented a minimum level of care in conducting an audit. An omitted auditing procedure would be, by definition, a substandard performance. Ironically, at this time there were no generally accepted auditing standards. The report terminology, "generally accepted auditing standards," was used because it was specified in Regulation S-X. It therefore became a directive to the AIA to establish auditing standards.

GENERALLY ACCEPTED AUDITING STANDARDS (1948)

In response to the SEC's directive to establish auditing standards, a special committee of the AIA prepared a report on auditing procedure, "Tentative Statement of Auditing Standards — Their Generally Accepted Significance and Scope." In this statement, the committee defined auditing procedures as actions, auditing standards were defined as the quality of those actions. Accordingly, a standard would not vary according to the circumstance, whereas, a procedure could vary according to the circumstance [Stettler, 1961].

The "Tentative Statement" was approved at the Institute's 1948 annual meeting and led to a revised auditor's report as specified in SAP No. 24, "Revision in Short-Form Auditor's Report or Certificate." The revised report was:

We have examined the balance sheet of X Company as of December 31, 1948, and the related statements of income and surplus for the year then ended. Our examination
was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statements of income and surplus present fairly the position of X Company at December 31, 1948, and the results of operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year [AICPA, 1948].

The general work of the auditor was still described as an examination of the balance sheet, income statement, and statement of surplus. The description of the specific work of the audit, "a review of the system of internal control," was deleted in recognition that generally accepted auditing standards included this procedure. Note that in this version, as compared to the immediately preceding version, the standards are always applicable, whereas, the procedures are those considered necessary in the circumstances. The recognition of generally accepted auditing standards defined the minimum level of auditor performance. The added clarification that the audit was done "without making a detailed audit of the transactions" was deleted. The assurance portion of the 1948 revised auditor's report was not changed from the wording used in the preceding version.

MINOR WORD CHANGES

In the next 40 years, minor changes were made to the auditor's standard short-form report. A change occurred in 1963 when the term "retained earnings" replaced the term "surplus" to convey the idea that earnings were reinvested in the firm. Recognizing the importance of the source and use of funds to a firm and the usefulness of this information to investors, a "statement of changes in financial position" was required as a part of management's financial report. In 1971, Statement on Auditing Procedure No. 50 required that the auditor's examination and opinion include the statement of changes in financial position. In 1987, the statement was changed to a "statement of cash flows."

CLOSING THE EXPECTATION GAP (1988)

The latest version of the auditor's short-form report is outlined in Statement on Auditing Standards No. 58, "Reports on
Audited Financial Statements," adopted in 1988 and effective January 1, 1989. Based on the 40-year longevity of the previous report form, one would assume that it had been very satisfactory in expressing the work and assurances of the auditor. In fact, pressure to change the report form had existed for more than a decade, but "any new move to change it would, like so many earlier efforts, become ensnarled in an endless debate over words, phrases, interpretations and implications" [Mednick, 1986].

The pressures to change began in the late 1960s and early 1970s when the litigious environment began to change the operating assumptions of the auditing profession. A rash of notorious bankruptcies and frauds, such as Penn Central, National Student Marketing, Equity Funding, and Sterling Homex, shook the public's confidence in the public accounting profession. The accounting and auditing standards failed to deal with the deceptive practices that had led to these business failures. The profession, the SEC, and Congressional committees led by Proxmire, Moss and Metcalf questioned the adequacy of the auditor's report and the adequacy of the audit function in meeting public demands and expectations [Campbell, 1987].

In 1974, during a time of intense Congressional scrutiny, the AICPA appointed the Commission on Auditor's Responsibilities to:

"... develop conclusions and recommendations regarding the appropriate responsibilities of independent auditors. It should consider whether a gap may exist between what the public expects or needs and what auditors can and should reasonably expect to accomplish. If such a gap does exist, it needs to be explored to determine how the disparity can be resolved."

The Commission concluded in its 1978 report that a gap did exist, caused in part, by the auditor's standard report. The Commission reported that:

"evidence abounds that communication between the auditor and users of his work — especially through the auditor's standard report — is unsatisfactory ... Recent research suggests that many users misunderstand the auditor's role and responsibility, and the present auditor's report only adds to the confusion. Users are unaware of the limitations of the audit function and are confused about the distinction between the responsibilities of management and those of the auditor" [AICPA, 1978].
A further dimension to the gap was the expectation that an audit would detect any fraud or error and that the auditor's responsibility also included an interpretative role, assessing the viability and profitability of the firm audited.

The Committee noted that the standard report intended to convey several separate messages, some explicitly and others inferred. It observed that:

"an auditor's report should state its messages explicitly and not rely on users' inferences . . . the auditor's report should be clear that technical elements are involved in the audit function and should also clearly describe the work of the auditor and his findings and avoid unclear technical terminology concerning details."

A new report form was suggested by the Committee. It was an expansion beyond the traditional two paragraph form, to a series of paragraphs each describing a major element of the audit function as applicable in the specific circumstances of the particular client. The descriptions were to clarify the respective responsibilities of the auditor and management and the limitations of an audit. Furthermore, the Committee suggested that the auditor should evaluate the cumulative effect of the management-selected accounting principles and determine that the financial statements taken as a whole are not biased or misleading. Also, the Committee believed that the word "consistency" could be eliminated, since disclosure rules made reporting on consistency management's responsibility. And it proposed that the "subject to" qualification for material uncertainties should be eliminated. The uncertainty should instead be disclosed in a note which provided users with enough information to make their own evaluation of the uncertainty's potential effect. Finally, the Committee recommended that the word "independent" be used in the title to the report and that the word "audit" replace the word "examined" as the description of the general work of the auditor.

The report of the Committee on Auditor's Responsibilities came at a critical time, because Congress, the SEC, and the profession were debating many of the issues addressed in the report. The Committee's proposals provided significant direction for the profession. Indeed, the general directive regarding how the report should be worded, and most of the recommendations noted above, became the basis for the next proposal and ultimately SAS No. 58.

Based on the report of the Committee on Auditor's Responsibilities, the Auditing Standards Board issued an exposure draft
proposing a new standard auditor’s report in 1980. The proposal would have: (1) added the word “independent” to the title; (2) stated that the financial statements were the representations of management; (3) replaced the word “examined” with the word “audited”; and (4) deleted the word “fairly” from the opinion. Following the comment period, the proposal was withdrawn. One explanation for the withdrawal was that many perceived that the proposed changes were designed to reduce auditor responsibility; the total effect was “not seen as an improvement” for financial statement users.

In the several years that followed, further Congressional investigations, investigations by the profession, litigation reflecting a greater willingness to hold professionals accountable, regulatory agency pressures, and a growing awareness of the widening expectation gap led to the adoption of SAS No. 58, “Reports on Audited Financial Statements.” This new auditor’s standard report is intended to make a contribution to bridging the expectation gap by being more comprehensive in describing the responsibilities, work, and assurance of the auditor. Accordingly, the statement was expanded to three paragraphs to address each of these issues. The recommended report form is:

**Independent Auditor’s Report**

We have audited the accompanying balance sheet of X Company as of December 31, 19XX, and the related statements of income, retained earnings, and cash flows for the year then ended. These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial posi-
The changes in this new report form reflect the development of ideas and concerns for the public’s understanding of the work of the auditor. The title expresses the cornerstone concept of the profession — independence. The beginning paragraph defining the responsibilities of the auditor and of the management also has no precedent in previous versions. In the past, it has been assumed that the public has understood the respective roles of management and the independent auditor. Now that concept is explicitly stated.

In the second paragraph, which describes the work of the auditor, several historically established concepts are reworded and several concepts that have never been expressed in the auditor’s report are introduced. The general procedures are termed an “audit” of the financial statements rather than an “examination” as it was termed for the past 50 years. The distinction may be too subtle for many readers, yet the balance of the paragraph makes it apparent that an audit is a broader evaluation process than an examination. Regarding the specific procedures, the new report states that the audit was conducted according to GAAS, but “auditing procedures” are not mentioned as in the 1948 version. Since the standards require procedures deemed necessary, reference to the procedures would be redundant.

The new report establishes a minimum objective for the audit, “reasonable assurance that the financial statements are free from material misstatement.” This expression explicitly recognizes the statement user’s concern regarding misstatement of information (intentional and unintentional), and implies that immaterial errors may possibly not be identified in the audit process.

The report’s statement that “An audit includes examining, on a test basis, evidence supporting the amounts and disclosures . . .,” parallels the expression used since 1934 describing the “tests of the accounting records.” The obvious difference is that the new version uses the terms “amounts and disclosures,” which is perhaps more explicit than the term “records,” and which includes disclosures that are a part of external reports.

The specific work of the audit is also described as “assessing the accounting principles and significant estimates.” The phrase, “assessing the accounting principles,” parallels an expression last used in the 1934 version of the report in which a “general review
of the accounting methods" was described. A reference to "significant estimates" is new to the auditor's report. It discloses that a review of estimates is a part of the audit process, and it also highlights the often forgotten premise that accounting numbers involve subjectivity and judgment.

Another new expression in the second paragraph concerns "evaluating the overall financial statement presentation." This is a procedure that auditors already were doing. Furthermore, one could interpret the phrase "present fairly" in the opinion or assurance paragraph to mean that an overall evaluation of the financial statements has been made. The new report, however, makes this point more explicit.

A concluding statement, also new to the second paragraph, states the implicit assumption of the past report versions that the audit work has been sufficient to provide a "reasonable basis for an opinion."

Significant changes were also made in the third paragraph in the description of the auditor's assurance. The basis for the auditor's report is still "opinion," perhaps the most enduring expression in the report. The degree of accuracy represented for the financial statements is modified from "present fairly" to "present fairly in all material respects." This qualification reemphasizes the expression in the second paragraph that the financial statements are free from material misstatements.

A second change in the assurance paragraph of the report is the elimination of the reference to the consistent application of accounting principles. Such reference is required only when there is a lack of consistency. The reference to consistency when accounting principles have been applied consistently was unnecessary after the adoption of Accounting Principles Board Opinion No. 20, Accounting Changes [Spires, 1990]. Further, SAS No. 58, requires that when there is a departure from consistent application of GAAP, an additional explanatory paragraph be appended to the three paragraph audit report.

A few overall impressions can be developed from the new report form. First, the report expresses some concepts that had been only implicit assumptions of past versions, or that needed revitalized wording. Second, the report is worded to communicate the nature of an audit by using a variety of terms and repetition. Thus, rather than relying only on the terms "examination and tests" to convey the nature of the auditor's work, the terms "audit, planning, examination, testing, assessing, and evaluating" are used. These terms have some overlap of meaning, and individually
There are subtle differences of meaning; collectively, they emphasize that audit work is technical and subjective. The terms "reasonable" and "opinion" are each used twice to emphasize the judgment element of the audit and the basis of the auditor's assurance. Also, the concept that the audit may not reveal immaterial misstatements is noted twice in the report. A third point concerns fraud detection. It is understood that misstatement can result from intentional (fraud) or unintentional actions. Although the accounting profession may have assumed that the public interest had shifted as early as the 1930s from prevention or detection of error or fraud to the "fair presentation" of financial statements [Carey, 1973], the public has continued to view fraud detection as an important audit function. It is clear that the profession is recognizing the public concern that fraud detection should be a part of the auditor's role.

**FUTURE CHANGES TO THE AUDITOR'S REPORT**

The same environment that precipitated the new, "expectation gap" SASs has continued into the 1990s, and will probably be sustained for much of this decade. The savings and loan bailout and bank failures will take years to manage and may alone sustain public skepticism of the system of auditing, oversight and regulation that allowed this condition to develop. Business failures are also unabated, such as the failures of many insurance companies, Executive Life Insurance being perhaps the most spectacular example. These failures and others have resulted in injured parties and lawsuits, some of which continue to challenge the adequacy of the auditing and reporting function.

In this environment, future changes to the auditor's report are likely. The new report has made some significant wording changes as noted above, however, there may be additional opportunities to explain the work and assurances of the auditor. For example, words or phrases that may require more detailed explanation are (1) "audit" (distinguishing an audit from an examination or review), (2) "test basis," (3) "reasonable assurance," (4) "free of material misstatement," (5) "assessing accounting principles" (Is this evaluating the appropriateness of the accounting principle or just that the principle used is a generally accepted accounting principle?), (6) "significant estimates," (7) "overall financial statements," (8) "present fairly," and (9) "all material respects." These terms are candidates for restatement or elaboration because they either (1) have specific professional meaning that needs to be understood by the constituency, (2) have been debated and changed...
before, and therefore, may be debated and changed again, or (3) suggest the subjective nature of the process which may require explanation.

Substantive changes to the auditor’s report may result from expanding management’s reporting requirements to a more comprehensive reporting structure. Fifteen years ago, the Accounting Objectives Study Group (Trueblood Commission) broadly defined management accountability to include providing information for stewardship and decision making that would not fit into the historical financial statement and footnote structure. Examples of management reports that would fit into a more comprehensive reporting structure are: (1) a report on the internal control structure, (2) a report on compliance with contracts and applicable laws and regulations, (3) a report on the efficient and economical use of resources, (4) a report on the progress made in achieving goals and objectives, (5) a report summarizing activities designed to deter fraud [Pavlock, 1990], and (6) a report on forecasts and projections.

Management reports that are not a part of the traditional financial statement disclosures will not become a standard audit disclosure due to market factors. A regulatory authority, principally the SEC, must require that management provide reports of a nontraditional nature. The next step would be the development of accountability standards and the extension of the attest function.

An example of this process is management’s report on internal control. For more than a decade auditors, regulators, and legislators have advocated a report on internal control as a vital management accountability. Managers of corporations have not responded by voluntarily reporting on internal controls, and the accounting profession has not had authority to require such a report. Adoption of the SEC’s 1988 rule proposal, “Report of Management’s Responsibilities,” will be necessary before it becomes a standard report. If the attest function is extended to add credibility to this management report, the standard audit report will include this change in auditor performance [Solomon, 1990].

**SUMMARY AND CONCLUSION**

The accounting profession has historically communicated the nature of its audit work to the public in a relatively brief statement. The auditor’s standard short form report developed its form originally from the practice in the British system. One critical element, authority, was missing. The audit in the United States was
not required by the capital markets or by law. The events of the 1929 stock market crash and the depression years of the 1930s significantly altered the economic, social, and political environment of the accounting profession and auditing practice. Legislation and stock exchanges began to require audits, and accounting practice began to establish standards. The standard short form report was developed and subsequently expanded to describe the work and assurance of the auditor. Since the last version of the report in 1948, attention has focused on the adequacy of the auditing function as it is practiced and described in the auditor’s report. This attention has been manifested in Congressional investigations, investigations directed by the profession, the SEC’s oversight activities, legislation, and litigation. These events have revealed the significant disparity between what the public seems to expect from an audit, on the one hand, and what auditors have believed could reasonably be accomplished in an audit and were willing to represent in the audit report, on the other hand. The users of audit reports have remained steadfast in the expectation that the auditor’s work provided greater assurance than auditors believed that they were representing. If this disparity, commonly referred to as “the expectations gap,” were to be closed or at least reduced, the accounting profession needed to take the initiative.

In addressing the challenge of closing the gap, the accounting profession has rewritten the standard short form audit report. Although the icon of brevity was not abandoned, the report is the most significant modification and expansion of terms to describe the responsibilities, work, and assurances of the auditor since 1934. Concepts that had been assumed or were implied in the old version of the report were explicitly stated, and concepts that had always been expressed were given renewed expression and emphasis.

The new audit report is not simply reflective of semantic changes, but a new effort to describe the auditor’s work. The new report also describes substantive changes that clearly indicate that the accounting profession is not waiting for the expectations of the public to change. In particular, the report recognizes the importance that the public places on fraud detection. Other “expectation gap” SAS’s (No. 53, No. 54, No. 55) also reflect acknowledgment of the auditor’s responsibility to detect material misstatement in the financial statements of management.

Further evidence that public expectations are gaining recognition may be found in the requirements of SAS No. 59, an expectation gap statement, which extends the auditor’s work beyond the
traditional scope of responsibility by requiring a report on any uncertainties about an entity’s ability to continue as a going concern. This new standard is, in effect, acquiescing to the criticism that auditors have been too concerned about the numbers reported and not about what they mean. The public would like more interpretation of the financial data [Olson, 1977].

If the public’s needs and expectations continue to be accommodated, additional management accountabilities will be reported. Because of the unique qualities of independence and credibility, the auditor will have an opportunity to expand the audit function and reporting, even to management accountabilities that do not fit into the traditional historical financial statement and footnote structure. Dicksee [1915], perhaps the most influential nineteenth century accountant, expressed a principle for the development of the profession that is as relevant today as it was 75 years ago.

If it should be thought that the standard that I have throughout advocated is somewhat Utopian in character, and unattainable in practice, I can only reply that . . . an incomplete investigation seems worse than useless, and I am convinced that it is only by voluntarily accepting, and even increasing, the responsibilities of our position that we can hope to maintain and to increase the large measure of public confidence we at present enjoy.

The profession must maintain and increase public confidence by eliminating the expectations gap. The new auditor’s report is a significant initiative that will be carefully observed to see if it will begin to close the gap.

REFERENCES


THE PROCESS OF ACCOUNTING INNOVATION: THE PUBLICATION OF CONSOLIDATED ACCOUNTS IN BRITAIN IN 1910

Abstract: The first known example of a consolidated balance sheet published by a British company was made available to shareholders of the Pearson and Knowles Coal and Iron Company Ltd. in 1910. This paper examines the reasons for this accounting change and investigates the source of the necessary expertise. The conclusion reached is that, in common with many other accounting innovations, evolutionary change occurred as the result of modifications to an existing business practice.

The process of change in accounting is a topic of both interest and importance; however, as a number of writers have pointed out, it remains a neglected area requiring further research [Hopwood, 1987; Previts, Parker and Coffman, 1990]. Change may come about as the result of an invention (revolutionary change) or the gradual development of a new technique as the result of numerous minor modifications to an existing practice (evolutionary change). The more widespread use of the new method may occur, in turn, either voluntarily or as the result of regulation. Parker [1977] has identified the following as important ‘change agents’: textbooks, teachers, companies, government agencies, accounting organizations, accountants and businessmen.1

The purpose of this paper is to explore the process of accounting change by focusing on the decision made by the directors of the Pearson and Knowles Coal and Iron Co. Ltd. (PK Ltd.), in 1910, to publish a consolidated balance sheet. To achieve this objective, the paper:

1Parker was focusing principally on the international diffusion of accounting thought and practice, and his nomenclature has been amended and extended to cover intranational dissemination.
1. outlines relevant developments in Britain and parallel events in the United States as a background to the study;
2. examines the circumstances at PK Ltd. leading to the decision to publish a consolidated balance sheet;
3. analyzes the consolidation procedures employed and compares them with subsequent British practice; and
4. investigates the sources of the idea to publish a consolidated balance sheet and the associated technical expertise.

The study is based on the material contained in the company's archive and evaluated by reference to available literature on the development of consolidated accounting practice.

BACKGROUND DEVELOPMENTS

The publication of a consolidated balance sheet by PK Ltd., starting in 1910, is noted by Edwards and Webb [1984, p. 38]. The years that followed saw experimentation in Britain with a range of different consolidation techniques and also other methods of group accounting. Following the passage of the Companies Act of 1948, the acquisition (purchase) method of consolidation became widely used by British holding companies, and was widely thought to be the only method permitted under the provisions of the Act. The detailed procedures to be followed were spelled out, much later, by Statement of Standard Accounting Practice 14 (1978), while the decision in Shearer v. Bercain (1980) confirmed suspicions that the use of the merger (pooling of interests) method by a small minority of companies contravened the Companies Act 1948. The Companies Act 1981 legitimized use of the 'merger method' of consolidation in Britain, and the procedures to be followed are now detailed in Statement of Standard Accounting Practice 23 (1985) and the Companies Act 1989. These permit, but do not oblige, holding companies to adopt merger accounting where certain conditions are met. These are designed to ensure that the merger represents a genuine "pooling of interests" — the shareholders of the merging companies continuing as joint shareholders in the combined enterprise — with a strictly limited amount of resources leaving the group.

2 The internal accounting records and correspondence of the Pearson and Knowles Coal and Iron Co. Ltd. are located in the British Steel Corporation North-western Regional Records Centre, Shotton Works, Deeside, Clwyd, location Nos. 3248 and 9536.

3 The differences between the acquisition and merger methods are discussed in the section headed 'Distributable Profits'.

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Corresponding developments occurred earlier in the United States and progressed at a faster pace. The first set of consolidated accounts is thought to have been prepared for the American Cotton Oil Trust in 1866 [Previts and Merino, 1979, p. 85], but it is the published accounts of the U.S. Steel Corporation for 1902 [reproduced in Previts and Merino, 1979, pp. 178-9] that have received close attention from accounting historians. The British accountant Arthur Lowes Dickinson was put in charge of Price, Waterhouse's American operations in 1901 (their first office had been opened in New York in 1890) and "working with W. J. Filbert, controller of United States Steel, developed consolidated theory based on the entity premise" [Previts and Merino, 1979, p. 177]. Together with other British and American accountants, Dickinson worked hard to disseminate knowledge concerning the theory and practice of consolidated accounts in a series of lectures delivered and through books and articles published between 1904-12 [Walker, 1978, pp. 148-52; Edwards and Webb, 1984, p. 35].

Historians' preoccupations with early events at U.S. Steel appear entirely justified, judging from Dickinson's own comparison, made in 1924, of contemporary financial reporting practices among British and American companies. In his view, there were two major differences among the accounting practices of steel companies. First the comprehensive financial reporting practices introduced by the U.S. Steel Corporation had been followed by "other steel companies . . . . and to some extent by other large manufacturing companies" [1924, p. 475]. Second, the publication of consolidated accounts where "American companies are much in advance" of their British counterparts [1924, p. 477].

Further light is thrown on early developments in the United States by Sir Gilbert Garnsey, who is likely to have benefited from discussions with Dickinson at Price, Waterhouse where they were
partners from 1913, when Garnsey was admitted to partnership, through to 1923 when Dickinson retired. Garnsey [1923, p. 54] drew attention to institutional support for the preparation of consolidated statements provided by the New York Stock Exchange, which "laid special stress on the necessity of filing consolidated balance sheets," and the Federal Reserve Board, which took the view that applications for credit should be supported by a consolidated statement. Legal recognition of the consolidation principle was first contained in the federal tax legislation, which required consolidated returns of net income and invested capital beginning in 1917. Garnsey [1923, p. 54] and Dickinson [1924, p. 477] agreed that the preparation of consolidated accounts was "almost universal" practice, while Dickinson further stated that this had been the situation "for more than fifteen years past."

It is interesting to note that, in the decades that followed, British consolidated accounting practices continued to follow developments in the United States. According to Lee, by the 1940s American companies generally used the acquisition (purchase) method, i.e. the method then given implicit approval by the Companies Act of 1948, and described in detail in the "1949 Notes" issued by the Institute of Chartered Accountants in England and Wales. By the time the British profession began to give serious consideration to use of the merger (pooling) method, in the early 1970s, American companies had already largely made this change [Lee, 1986, p. 394].

THE DISCLOSURE DECISION

PK Ltd. was incorporated to take over the assets and business activities of three existing enterprises from July 1, 1873. The company's shares were first quoted on the London Stock Exchange in 1900 and, during the first two decades of the present century, PK Ltd. acquired the entire share capital of Rylands Brothers Ltd. (RB Ltd.) and the Wigan Junction Colliery Co. Ltd.; also £210,000 of the £218,600 share capital of the Moss Hall Coal Co. Ltd., while the Partington Steel & Iron Co. Ltd., was incorporated as a wholly owned subsidiary in 1910. PK Ltd. became a subsidiary of Sir W.G. Armstrong Whitworth & Co. Ltd. in 1920. Ten years later — at a time when the British steel industry was at a particularly low ebb — the steel making activities of PK Ltd. were merged with those of its principal competitor in South Lancashire, the Wigan Coal and Iron Co. Ltd., to form the Lancashire Steel Corporation Ltd.
Peter and John Rylands were directors of one of the three companies that came together to form PK Ltd. in 1873. They then became founder members of PK Ltd.’s board of directors and, together with Thomas Glazebrook Rylands, held 2,172 shares, representing 13.3% of the company’s initial share capital. The three brothers were, at this time, also in partnership under the name Rylands Brothers (subsequently incorporated with limited liability in 1874) as manufacturers of steel wire. This firm was PK Ltd.’s “largest and most important customer” [Bleckly, p. 31] taking 20% of the entire production of the iron works.

The brothers naturally had a personal interest in the smooth running of PK Ltd., but problems arose following the death of John Rylands in 1898 and Thomas Glazebrook Rylands soon after. Their property was transferred into trust, but with two of PK Ltd.’s directors — John J. Bleckly and the remaining Rylands brother — acting as trustees, a possible conflict of interest arose. The directors of PK Ltd. therefore decided that the only sensible solution was to acquire the shares from the trustees or else “run the risk of losing that part of the company’s trade that depended upon RB Ltd.’s orders” [Bleckly, p. 32]. Bleckly states that “after very difficult, intricate and protracted negotiations — to which, as there were so many interests involved, the Court of Chancery had to be made a party and had to consent — the transaction was finally completed in 1902.”

The acquisition was made at par value with payment spread over the period 1902-06. Following completion of this transaction, the directors gave consideration to the possibility of including the assets and liabilities of RB Ltd. in the published balance sheet of PK Ltd. at June 30, 1907. A “joint” balance sheet for the two undertakings and the directors’ report thereon were printed, ready for circulation to shareholders, and the scheme was explained in the draft directors’ report as follows: “In order to make clear to the Shareholders the exact position of the Company at the present time, the Directors have decided to include the assets, liabilities and reserves of Rylands Brothers in this year’s Balance Sheet.”

The directors were in some doubt, however, about whether the publication of a joint statement fully satisfied their contractual obligation to shareholders under article 152 of the company’s constitution, which stipulated that “A balance sheet shall be made out in every year and laid before the company in general meeting and such balance sheet shall contain a summary of the property and liabilities of the company.” The problem, as they saw it, was that the “joint” balance sheet was not confined to the property and
liabilities of the company. Accordingly, the directors decided that "for the purpose of meeting any possible objection that this course does not strictly conform to the Articles of Association, a Resolution will be moved at the General Meeting to confirm the Directors' action." The auditors Blease & Sons, chartered accountants, took no apparent exception to the proposed course of action. Their draft report merely explained that "The above balance sheet incorporates the assets and liabilities of Rylands Brothers Limited as certified by their auditors, Messrs. Stead, Taylor & Stead, Chartered Accountants, of Liverpool." The directors abandoned their plan and, instead, continued for a while to print and circulate only a legal entity-based balance sheet (referred to below as "the legal balance sheet").

Three years later the company included a consolidated balance sheet in a circular announcing to members an extraordinary general meeting called to sanction amendments to the company's constitution and approve a £140,000 share issue. The circular, which contained a "General Balance Sheet Incorporating the Assets and Liabilities of Rylands Bros. Ltd.," drew attention to an important limitation on the usefulness of the legal balance sheet, namely that it failed to give a proper indication of the value of the company's investments. In the Board's view, "the surplus value of its assets over and above the price paid by the PK Co. for its shares now represents an internal reserve of at least £140,000 [the amount Rylands Brothers, Ltd.'s undistributed profit], no part of which is shown by the PK annual Balance Sheet."

The initial draft of the 1910 circular did not include a consolidated balance sheet, and one was inserted on the insistence of the company's chairman, J.S. Harmood Banner, who argued that a 'joint balance sheet' might help clarify the position. The chairman was senior partner of Harmood Banner & Son, chartered accountants, but the proposal was not his brainchild. In a letter to a fellow director, John J. Bleckly, Harmood Banner admits that "It [the joint balance sheet] was your suggestion at one time [1907], and I threw cold water upon it, but I think for the purpose of this circular a combined account might be useful."

7J. S. Harmood Banner was a highly successful professional accountant who was president of the Institute of Chartered Accountants in England and Wales, 1904-5. He was the son-in-law of Thomas Knowles, one of the two founders of Pearson and Knowles and on Knowles's death in 1884, he joined the board, as executor, to look after the family interest. He became chairman in 1899 [Davenport-Hines, 1985].
Encouraged by this change of heart, Bleckly next explored the possibility of framing the annual balance sheet along similar lines. The plan is outlined in a letter, to A. Norman Hill of Hill, Dickinson & Co., solicitors, dated June 22, 1910, which acknowledged a perceived obstacle to the publication of a consolidated balance sheet.

Objection has been raised that the two Companies are legally distinct, and that the creditors of one in fact have no claim on the assets of the other, and circumstances may arise in case of winding up which would make this distinction of importance.

Having raised this objection, Bleckly answers it in the following terms.

Of course, it is conceivable that the Assets of the subsidiary Company might be inadequate to discharge its liabilities, and in that case there would be no claim on the Assets of the Parent Company to make good any such deficiency. The converse could hardly happen, as in any liquidation of the PK Company, the whole of the surplus Assets of Rylands Brothers Limited, would belong to the PK Co's Estate, and be available for their creditors. The PK Balance sheet after all is only addressed to its own Shareholders and Creditors, and not to those of Rylands Brothers Limited, at all, who trust that Company on its own merits alone, and not because of its connection with PK Co.

Bleckly therefore inquired of Hill whether there was "any legal force in this objection under present conditions, and if so, how can it be got over." According to Hill (letter dated June 23), "for the reasons to which you refer, your Official Balance Sheet . . . called for under Articles 152 and 153 and returned to Somerset House" (where it was made available for public scrutiny) should include only the assets and liabilities of PK Ltd. However, Hill acknowledged the fact that there would be no objection to publishing a consolidated balance sheet in addition to the legal balance sheet, and made the following suggestion:

If you adopt this course then the Official Balance Sheet could be published in a very condensed form and the supplementary Balance Sheet could I think, by the use of appropriate type, be made for all business purposes the Balance Sheet of the joint undertaking.
The directors rejected Hill's advice and instead presented to shareholders a single statement, headed "Consolidated Balance Sheet, 30th June 1910. Incorporating Assets and Liabilities of Rylands Brothers Limited."

It is reasonable to assume that the directors concluded that no one was likely to object to what might have been construed as a technical infringement of the company's articles and prevailing company law. The directors of some companies adopted a similarly cavalier approach concerning the format of balance sheets filed under the Companies Act 1908, s.26(3), and such consolidated statements were accepted by the Registrar of Companies [Garnsey, 1923, p. 17].

The directors' decision to publish a consolidated balance sheet is explained in their report, to the 1910 annual general meeting, as follows:

A circular accompanies this Report, explaining a proposal of the Directors, to which great importance is attached, that will require the issue of the remainder of the Share Capital of the Company. With a view of giving information regarding the effect on the value of the Company's property and its resources, of its investment in Rylands Brothers Limited — which now forms an important part of the whole undertaking — it is considered desirable to present a combined balance sheet incorporating the assets and liabilities of Rylands Brothers' business so as to show the position of the company as a whole. The balance sheet, therefore, is now submitted with the concurrence of the auditors on this basis.

The 'proposal' involved the incorporation of the Partington Steel & Iron Co. Ltd. to supply RB Ltd. with semi-finished steel for its products. Based on the assumption that investors take note of published financial information when making investment decisions, it is reasonable to conclude that the relatively stronger financial position displayed in the consolidated balance sheet was designed to improve the attractiveness of the planned share issue. The share issue was, indeed, a success, and the chairman announced to the 1911 AGM that the new development had helped create a 'completely self-contained' vertically integrated group of

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8It may well be that the accounts filed by PK Ltd. were the first example of this treatment, though this cannot be confirmed as it has proved impossible to trace the Registrar of Companies file on PK Ltd. amongst the records of defunct companies deposited at the Public Records Office in London.
companies. Creation of the new company comprised the "largest single investment project in the Edwardian steel industry," with production soon running at "300 tons weekly of billets, rails, joists and sections" [Davenport-Hines, 1985, p. 45].

The company continued to publish a balance sheet incorporating the activities of RB Ltd. but not PK Ltd.'s other subsidiaries, until 1927. For that year and for 1926, the directors made the additional voluntary decision to present to PK Ltd.'s shareholders the balance sheet of the Partington Steel and Iron Co. Ltd., which by this time was a far larger concern than even RB Ltd. The results of the Partington Steel and Iron Co. Ltd. were never consolidated, however, and following implementation of a Scheme of Arrangement dated July 12, 1928, the directors of PK Ltd. reverted to the practice of publishing only the legal balance sheet.⁹

CONSOLIDATION PROCEDURES

The mechanics of the consolidation exercise will be described using the consolidated balance sheet published at June 30, 1910 (Table 1), although the procedures used when preparing the unpublished balance sheet in 1907 were little different. The procedures will be compared with current British practice, not for the purpose of criticism, which would be unfair, but to provide a yardstick for discussion and analysis.

To help understand the significance of these adjustments, it is necessary to say a few words about the nature of PK Ltd.'s two published documents — the director's report and balance sheet — and the relationship between them. The balance sheet disclosed an interim position, giving financial effect to transactions undertaken during the year, but not the appropriations of profit recommended by the directors for approval at the annual general meeting. The narrative contained in the director's report typically started with a statement of the profit brought forward, the profit reported for the year and the interim dividend already paid out. (This merely repeated items shown on the face of the balance sheet.) The directors report then moved on to outline the recommended appropriations of profit and to identify the net balance of retained profit to

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⁹The fact is that there was little purpose in PK Ltd. publishing a consolidated balance sheet after 1920 when it became a wholly owned subsidiary of Sir W. G. Armstrong Whitworth and Co. Ltd. Armstrong Whitworth Security Company Ltd., the parent of Sir W. G. Armstrong Whitworth & Co. Ltd., commenced the practice of publishing a consolidated balance sheet in 1929.
Table 1
Consolidation Schedule, 30th June, 1910

<table>
<thead>
<tr>
<th></th>
<th>PK Ltd. balance sheet</th>
<th>RB Ltd. balance sheet</th>
<th>Consolidated balance sheet</th>
<th>Consolidated adjustments</th>
<th>Consolidated balance sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPITAL AND LIABILITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumulative preference shares</td>
<td>250,000. 0. 0</td>
<td>0. 0</td>
<td>40,000. 0. 0</td>
<td>(A)</td>
<td>40,000. 0. 0</td>
</tr>
<tr>
<td>Ordinary shares</td>
<td>610,000. 0. 0</td>
<td>0. 0</td>
<td>80,000. 0. 0</td>
<td>(A)</td>
<td>80,000. 0. 0</td>
</tr>
<tr>
<td>Reserve fund</td>
<td>180,000. 0. 0</td>
<td>0. 0</td>
<td>137,500. 0. 0</td>
<td>317,500. 0. 0</td>
<td></td>
</tr>
<tr>
<td>Loan</td>
<td>145,400. 0. 0</td>
<td>0. 0</td>
<td>21,000. 0. 0</td>
<td>23,621.10. 3</td>
<td></td>
</tr>
<tr>
<td>Debentures</td>
<td>21,000. 0. 0</td>
<td>0. 0</td>
<td>21,000. 0. 0</td>
<td>23,621.10. 3</td>
<td></td>
</tr>
<tr>
<td>Creditors:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On open accounts</td>
<td>68,961.17. 4</td>
<td>21,083.15. 3</td>
<td>16. 5. 1</td>
<td>90,029. 7. 6</td>
<td></td>
</tr>
<tr>
<td>M &amp; LD Banking Co. Ltd.</td>
<td>26,111. 3. 9</td>
<td>26,111. 3. 9</td>
<td>(H)</td>
<td>26,111. 3. 9</td>
<td></td>
</tr>
<tr>
<td>Creditors, P &amp; K Ltd.</td>
<td>23,621.10. 3</td>
<td>23,621.10. 3</td>
<td>(G)</td>
<td>23,621.10. 3</td>
<td></td>
</tr>
<tr>
<td>Profit and Loss Account</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balance brought forward</td>
<td>14,517. 4. 5</td>
<td>752.19. 2</td>
<td>15,270. 3. 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add: Profit for the year</td>
<td>44,822.15. 9</td>
<td>13,709. 1. 10</td>
<td>124,17. 9. 0</td>
<td>66,617.13. 3</td>
<td></td>
</tr>
<tr>
<td>Less: Interim dividend paid</td>
<td>59,340. 0. 2</td>
<td>14,462. 1. 0</td>
<td>1,883. 6. 8</td>
<td>14,424.19. 1. 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,301,347. 1. 3</td>
<td>12,578.14. 4</td>
<td>381,895. 3. 7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

https://egrove.olemiss.edu/aah_journal/vol18/iss2/10
PROPERTY & ASSETS

Freehold and leasehold land, buildings, collieries, ironworks, wire mills, cottages, machinery, plant etc. 547,108.11. 6 198,142.11. 4 (B) 12,417. 9. 0 757,668.11. 10
Reserve fund investment account 199,324.15. 5 8,384.12. 11 (A) 120,000. 0. 0 87,709. 8. 4
Mine rent suspense account 11,615. 1. 11 11,615. 1. 11
Stock, as per stock books 245,267. 0. 2 81,382. 3. 4 326,649. 3. 6
Sundry debtors 170,345. 9. 6 93,969.10. 11 (D) 2,448. 6. 8 (G) 23,621.10. 3 (H) 26,111. 3. 9
Debtors, P & K Ltd. 16. 5. 1
Cash and Bills in hand and at bankers 127,686. 2. 9 (E) 20,000. 0. 0 81,574.19. 0 (F) 16. 5. 1

1,301,347. 1. 3 381,895. 3. 7 1,503,462. 8. 1

Journal/Adjustments

<table>
<thead>
<tr>
<th></th>
<th>£</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>(A) RB Ltd.: Preference shares</td>
<td>40,000. 0. 0</td>
<td>120,000. 0. 0</td>
</tr>
<tr>
<td>RB Ltd.: Ordinary shares</td>
<td>80,000. 0. 0</td>
<td></td>
</tr>
<tr>
<td>P&amp;K Ltd.: Reserve fund investment account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(B) RB Ltd.: Freehold and leasehold buildings, etc.</td>
<td>12,417. 9. 0</td>
<td>12,417. 9. 0</td>
</tr>
<tr>
<td>RB Ltd.: Profit for the year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(C) RB Ltd.: Profit for the year</td>
<td>1,883. 6. 8</td>
<td>1,883. 6. 8</td>
</tr>
<tr>
<td>RB Ltd.: Interim dividend paid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Being book value of investment of RB Ltd. offset against the nominal value of shares acquired.

Being capital expenditure for year of RB Ltd. previously written off, now written back.

Being interim dividend included in P&K Ltd. reported profit, offset against RB Ltd. reported profit.
Table 1 (Continued)

Consolidation Schedule, 30th June, 1910

<table>
<thead>
<tr>
<th></th>
<th>£</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D)</strong> P&amp;K Ltd.: Profit for the year</td>
<td>2,448. 6. 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P&amp;K Ltd.: Sundry debtors</td>
<td>2,448. 6. 8</td>
</tr>
<tr>
<td></td>
<td><strong>Being reversal of entry in the accounts of P&amp;K Ltd. to record dividend proposed by RB Ltd.</strong></td>
<td></td>
</tr>
</tbody>
</table>

| **E)** RB Ltd.: Bills payable | 20,000. 0. 0 |
|   | P&K Ltd.: Cash and bills in hand and at bankers | 20,000. 0. 0 |
|   | **Being bills payable by RB Ltd. to PK Ltd.** |   |

| **F)** P&K Ltd.: Creditors on open accounts | 16. 5. 1 |
|   | RB Ltd.: Debtors, P&K Ltd. | 16. 5. 1 |
|   | **Being amount due by PK Ltd. to RB Ltd.** |   |

| **G)** RB Ltd.: Creditors, PK Ltd. | 23,621.10. 3 |
|   | P&K Ltd.: Sundry debtors | 23,621.10. 3 |
|   | **Being amount due by RB Ltd. to PK Ltd.** |   |

| **H)** RB Ltd.: M & LD Banking Co. Ltd. | 26,111. 3. 9 |
|   | P&K Ltd.: Cash and bills in hand and at bankers | 26,111. 3. 9 |
|   | **Being RB Ltd. bank overdraft offset against P&K Ltd. bank balance.** |   |

**SOURCE:** The consolidation schedule and journal entries have been compiled from the draft balance sheet and draft consolidated balance sheet of P&K Ltd. at 30 June 1910, the audited balance sheet of RB Ltd. at 30 June 1910 and the published consolidated balance sheet of P&K Ltd. at the same date.
be carried forward. Following approval at the annual general meeting, the appropriations were recorded in the books and the net figure carried forward was shown as the opening balance in the following year's balance sheet.

**Distributable Profits:** As noted earlier, two alternative methods of consolidation which have been the subject of discussion and practical application, in Britain and elsewhere, are the "acquisition method" and the "merger method." The crucial difference between them concerns the treatment of profits earned by the subsidiary prior to the date of takeover. Under the acquisition method, pre-acquisition profits of the subsidiary are capitalized on the grounds that they "belong" to the former shareholders of the subsidiary who have received their value as part of the purchase price. Under the merger method, pre-acquisition profits remain available for distribution on the grounds that the subsidiary's former shareholders continue as joint investors in the enlarged group.

The shares in RB Ltd. were purchased for cash and, applying the above rationale, the acquisition method would today be considered appropriate. The company never, in fact, made any distinction between pre and post acquisition profits, i.e., the entire profits and reserves of RB Ltd. were aggregated with those of PK Ltd. when preparing the consolidated balance sheet (see Table 1). The remote possibility that RB Ltd. had no profits at the acquisition date has been explored; there were indeed profits which were subsequently transferred to PK Ltd. in the form of dividends and credited to the latter company's profits and loss account.

**Cost of Control:** In Britain, the difference, if any, between the price paid for shares and their fair value or book value, is today dealt with by entries in the consolidated balance sheet as goodwill/capital reserve on consolidation (acquisition accounting) or as a capitalization of profits/merger reserve (merger accounting).

The directors minute book shows that, following the protracted negotiations, shares in RB Ltd. were purchased at their nominal value of £25 per share, payable in the following installments: for the 3,200 ordinary shares, £12.10.0 (£40,000) initially and five further annual installments of £2.10.0 (£8,000) commencing June 30, 1902; and for the 1,600 preference shares, five equal annual installments of £5 (£8,000) commencing June 30, 1902. Interest was payable at 4% per annum on the ordinary shares and 5% per annum on the preference shares to be paid from June 30, 1901 on any amounts remaining outstanding. The directors' report
for 1907 reports that "the purchase of the shares of Rylands Bros. Ltd. mentioned in the directors' report in 1902, has now been completed, and the whole of the business transferred to this company."

Table 1 shows the capital of RB Ltd. at £120,000, made up of preference shares £40,000 and ordinary shares £80,000. The price paid by PK Ltd. is included in the reserve fund investment account at £120,000. These two amounts cancelled out neatly on consolidation (Journal entry A), giving rise to neither a debit nor credit balance requiring separate statement in the consolidated balance sheet.

Uniformity: The considerable up-turn in PK Ltd.'s profitability, associated with the general improvement in trading conditions throughout the industry, enabled the directors to introduce, in 1905, the policy of writing-off all expenditure on plant and machinery against profit for the year, "so the plant and machinery account was practically closed from 1905 onwards" [Bleckly, p. 45]. Each year additions were capitalized and recorded in the balance sheet, while the directors' report contained a recommendation for the amounts involved to be written-off against reported profit. The directors of RB Ltd., by way of contrast, wrote off capital expenditure before striking the balances for profit and fixed assets reported on the face of the draft balance sheet. The function of journal entry B is, therefore, to write-back the capital expenditure of RB Ltd. for the purpose of preparing the consolidated balance sheet. In line with the previous practice of PK Ltd., the combined capital expenditure for the year of each company, amounting to £18,125.17.0, appeared as a recommended appropriation of profit in the directors report for 1910.

Inter-company Balances: Journal entries (c)-(g) have as their purpose to eliminate inter-company balances. This treatment is based on the notion that the consolidated balance sheet regards a group of companies as a single entity that cannot owe money to itself. The twin purposes of the adjustment are to avoid overstating reported balances and remove potential scope for window-dress-

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10It was during this period that the understatement of reported profits, by British companies, became common practice, with an element of judicial approval implicit in the decision in *Newton v. Birmingham Small Arms Co. Ltd.* (1906). The directors of PK Ltd. seem to have accepted the idea that the understatement of a company's financial position was a desirable business policy, but not the view that the process by which this objective was achieved should be concealed from shareholders.
ing. Two adjustments were needed in order to prevent double counting in relation to profits and dividends: Journal entry (c) removes the interim dividend paid by RB Ltd., that is already included in PK Ltd.'s reported profit for the year; Journal entry (d) removes, from PK Ltd.'s figures for profit and sundry debtors, the final dividend expected from RB Ltd., but unprovided, in the subsidiary company's accounts. Journal entries (e)-(g) eliminate inter-company indebtedness arising from trading transactions between the two companies.

**Bank Balance:** The bank overdraft of RB Ltd. at the Manchester and Liverpool District Banking Co. Ltd. is offset against the larger bank balance of PK Ltd. (journal entry H), leaving a net balance to be reported to shareholders. Current best practice permits this adjustment only to the extent that debit and credit balances are maintained at the same bank. It is not known whether both companies used the same bank.

**Inter-company Unrealized Profits:** The existence of vertical integration gave rise to a debt outstanding, at the year end, of £23,621.10.3 for goods supplied by PK Ltd. to RB Ltd. As RB Ltd. traded as an independent concern, we can assume that goods were invoiced to that company at selling price. It is unlikely that all the goods supplied to RB Ltd. had been resold at the year end, but no adjustment was made to eliminate unrealized inventory (stock) profits.

**PROCEDURES' APPRAISAL**

The main differences between the consolidation procedures employed by PK Ltd. and those in use today, in Britain, are that only one of its four subsidiary companies was consolidated, that intra group profits were not eliminated on consolidation and that the combination was accounted for as a merger (pooling) despite the fact that it was an acquisition.

No reasons were given by the directors for their failure to consolidate the activities of the Wigan Junction Coal Co. Ltd, a relatively minor investment, the Moss Hall Coal Co. Ltd. and the Partington Steel and Iron Co. Ltd. However, some of the known facts may help explain the director's decision. During the period 1905-1914, no profits whatsoever were derived from any of these three investments [Bleckly, p. 47]. In 1908, the directors reported a devastating explosion at the main colliery of the Moss Hall Coal Co. Ltd., which destroyed the entire colliery and resulted in a serious loss of life. The cost of this disaster, to PK Ltd., had been...
put at £200,000 and, according to Bleckly, this subsidiary "continued to be a constant drain on the parent company's resources" [Bleckly, p. 40]. The Partington Steel and Iron Co. Ltd. was fully operational by 1912, but it was not until the war years that much benefit accrued from this investment. Moreover, during the early years of its existence, the company incurred large amounts of capital expenditure, so that it might well have been considered undesirable to consolidate and extend to that company the group policy of writing off capital expenditure against revenue.

The failure to remove unrealized stock (inventory) profits would today be a matter for criticism, but these were early days, and it was clearly not the invariable practice even among leading American companies — such as the United States Steel Company (1902) — where the application of consolidation procedures was far more advanced than in Britain. Furthermore, the directors were preparing PK Ltd.'s first set of consolidated accounts some time before Dickinson's authoritative Accounting Practice and Procedure acknowledged the fact that "the elimination of profits on sales or transfers between companies is a somewhat difficult and complicated matter" [Dickinson, 1913, p. 180].

The decision of the directors to "pool" the entire accumulated profits of PK Ltd. and RB Ltd. is more difficult to justify, even by reference to contemporary practice. The author has found no reference to the pooling of interests basis of accounting in the early literature — mostly American — on consolidated accounts, but the views expressed concerning the appropriate treatment of a subsidiary company's pre-acquisition profits were unambiguous. According to Dickinson, "there is a clear rule of common-sense, and probably also of law, that a corporation cannot earn profits before it exists" [Dickinson, 1904, p. 452]. Any profits earned by a subsidiary prior to acquisition are assumed to be included among the assets purchased and any realization of those assets is "merely a return to the purchasing company of a portion of the purchase money — i.e., of the capital of the corporation" [Dickinson, 1904, p. 453].

SOURCE OF IDEAS AND EXPERTISE

From where did the directors get the idea to prepare a consolidated balance sheet? There is certainly no evidence that professional accountants either internally — Harmood Banner, the chairman — or externally, Blease and Co., the auditors — were in any way responsible for the change. Instead, apparently it was
John Bleckly's idea. Was there something in his personal experience that encouraged him to make the proposal? There is no evidence that he was in any way associated with iron and steel companies in the United States, where the preparation of consolidated accounts was already well established, or even that he visited the country, although he may well have. Also, there is no evidence that the expertise was transferred from local authorities, where the preparation of an "aggregated balance sheet" from separate balance sheets prepared for individual funds and trading activities, was common practice by the end of the nineteenth century. The more likely explanation is that it was in common with many other accounting innovations: a natural development out of an existing practice.

It was mentioned earlier that PK Ltd. was formed by the amalgamation of three existing businesses. The purpose of the amalgamation was to achieve a degree of vertical integration by combining the activities of a colliery, a forge and a wire manufacturer. Valuations were obtained for each of these organizations as the basis for fixing the number of shares to be issued to their shareholders. Revised balance sheets were prepared for the Pearson and Knowles partnership, which owned the colliery, based on valuations prepared by Elias Dorning, a Manchester mining engineer; for the Dallam Forge Co. Ltd. based on valuations by Walter May, a Birmingham consulting engineer; while for the Warrington Wire Iron Co. Ltd., a company 'of recent construction [1863] and modern design' [Bleckly, p.6], the use of book values was considered appropriate. The share capital figures were as follows: Pearson and Knowles, £480,000; Dallam Forge, £170,000; Warrington Wire, £170,000; and £10,000 for what is described as "certain outstanding iron companies' debentures" [Bleckly, p. 7]. The former activities of Pearson and Knowles were subsequently recorded separately, in the books of PK Ltd., as the collieries branch and those of the other two companies combined as the ironworks branch.

Bleckly's history of PK Ltd. shows that a careful record was made of the profits earned by each branch and he expresses annual profits earned as a percentage of the original capital for each year between 1874-1920. He also tells us that the "two departments," though controlled in regard to finance and general policy by the same board of directors, bought and sold one to the other

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11Bleckly sometimes describes the geographically separate branches as departments.
at market prices with little or no regard to anything but each one's individual interest, so that the departmental results were quite simple and could be separately followed in detail and as a whole" [Bleckly, p. 35]. There are no early balance sheets for either of the two branches, but records have survived for each of the years 1908-17. Transactions between the two branches were recorded in an "adjustment account"\(^\text{12}\) that cancelled out on consolidation to produce the legal entity based balance sheet for PK Ltd. We know that PK Ltd. had worked closely with RB Ltd. for many years, and the preparation of a consolidated balance may be seen simply as the application of well established branch accounting procedures to incorporate the activities of what Bleckly described as "this new department" [Bleckly, p. 33].

**REVIEW**

The publication of consolidated accounts is, arguably, the major twentieth century innovation concerning external financial reporting procedures. The directors of PK Ltd. were pioneers in the application of consolidated accounting procedures to the financial results achieved by a British group of companies. They published a consolidated balance sheet a full decade before any other example that has so far come to light. The events at PK Ltd. attracted no press attention; *The Accountant* in a few brief references to the company's affairs between 1910-27, makes no mention of its innovative financial reporting practice. Had one of the leading public companies, such as Lever Brothers Ltd., published a consolidated statement, in 1910, it would have been more likely to capture the attention of the business community and the investing public. Instead, it was necessary to await the publication by Nobel Industries of a far less sophisticated set of consolidated accounts, in 1922, and the lecture presented by Garnsey to the London members of the Institute of Chartered Accountants in England and Wales, later in the same year, before the group accounting debate took center stage in Britain.\(^\text{13}\)

The purpose of this paper has been to improve the understanding of the process of accounting change, and it has been

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\(^{12}\)The term 'adjustment account' seems to have been in widespread use at the beginning of the century and the way that it could be used to make individual ledgers, dealing with a particular aspect of total business activity, self balancing, is described, for example, in Dicksee [1903, pp. 14-15 and p. 221].

\(^{13}\)The significance of Garnsey's lecture is examined in Kitchen [1972]. See also Edwards and Webb [1984].
Edwards: The Process of Accounting Innovation

argued that the adoption of consolidated accounts at PK Ltd. was a natural development out of existing practice (the evolutionary approach). There is no evidence that the directors' actions had any significant influence on the general adoption of the technique of consolidated accounts by British companies. True, it was adopted by its successor company, in 1930, eighteen years before its use became a British statutory requirement, but no reference was made to previous usage by the chairman of Nobel Industries, who claimed his company's action was "practically an innovation for large concerns so far as this country is concerned" [quoted in Kitchen, 1972, p. 127]. Indeed, the form of Nobel's published statement — correctly described by the auditors as an "aggregated document" — suggests a quite different origin, namely the accounting procedures of local authorities. The change agent, on this occasion, may well have been that stern critic of secretive accounting practices during the 1920s, Sir Josiah Stamp, who was at this time the Secretary of Nobel Industries. As a distinguished economist, and former civil servant, he would no doubt have been fully familiar with accounting practices in the public sector.

REFERENCES


*14The document simply listed combined figures for various assets and liabilities.*


ACCOUNTING RECORDS OF QUAKERS OF WEST FALMOUTH, MASSACHUSETTS (1796-1860): AN ANALYSIS

Abstract: The village of West Falmouth, Massachusetts was settled in the 1660s by William Gifford and other Quakers who came there to avoid persecution. They lived relatively isolated from other settlers in the region. The accounting records of Prince Gifford, Jr. (1771-1853) and Prince Gifford Moore (1812-1885), descendants of William Gifford, are still in existence. This paper provides an analysis of these records, which reflect the simplicity, frugality, honesty, and equality of early West Falmouth Quakers. Littleton's antecedents of double-entry bookkeeping are applied to explain the use of the single-entry system of accounting by West Falmouth Quakers during the same period that Philadelphia Quakers were using the double-entry system.

This study examines accounting records of early American Quakers in West Falmouth, Massachusetts and analyzes the records within the context of the environmental conditions prevailing at the time the records were prepared. West Falmouth Quakers were semi-isolated compared to the Pennsylvania Quakers; and, accordingly, the records of the West Falmouth Quakers are considered likely to reflect the religious customs of Quakers in Colonial America. Additionally, West Falmouth Quaker account-

The authors are grateful for the assistance of Cecelia Lucinda Bowerman, and Harriet Quimby and Hannah Fitts of the Falmouth Historical Society for providing the records analyzed in this paper. Additionally, the authors thank two anonymous referees and Joe McKeon and Marilynn Collins for comments on this paper.

Evidence that West Falmouth was settled mostly by Quakers, who were thus semi-isolated, is provided in Deyo [1890]:

"In 1678 lands were laid out at Oyster pond; also at Hog Island and great Sipperwisset where the early settlers were William Gifford, Senior; Wil-
Table 1

Gifford Family Line

<table>
<thead>
<tr>
<th>Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>William Gifford [1687]</td>
<td>First Quaker in West Falmouth, known as William Gifford 'of Sandwich.'</td>
</tr>
<tr>
<td>John Gifford [1642-1708]</td>
<td>Head of Prince Gifford line.</td>
</tr>
<tr>
<td>Benjamin Gifford [1703-1788]</td>
<td>-</td>
</tr>
<tr>
<td>Prince Gifford [1746-1803]</td>
<td>Father of Prince, Jr. and Maltiah Gifford.</td>
</tr>
<tr>
<td>Prince Gifford, Jr. [1771-1853]</td>
<td>Brother of Maltiah Gifford</td>
</tr>
<tr>
<td>Charity Gifford Moore [1794-1813]</td>
<td>Died at age eighteen with complications from giving birth to Prince Gifford Moore.</td>
</tr>
</tbody>
</table>
HISTORICAL OVERVIEW

The first Quakers in America were Mary Fisher and Ann Austin, who arrived in Boston, Massachusetts from England in 1656. They were immediately expelled from the city because of their religion. Others arrived shortly thereafter, and were persecuted with whippings, mutilation, and imprisonment. Four of them, including one woman, were hanged [Mangelsdorf, 1986]. However, the Quakers persisted, and two of them, Christopher Holder and John Copeland, reached Sandwich, Massachusetts in 1658. Holder and Copeland were later arrested and taken to Barnstable where the magistrates ordered that each of them receive thirty-three lashes from “a new tormenting whip with three cords and knots at the end” [Geoffre, 1930, p. 25].

In view of the persecution in Boston and Sandwich, many Quakers moved to West Falmouth, a village in the town of Falmouth. William Gifford was among those early settlers, and the first Quaker to settle in West Falmouth [Geoffrey, 1930, p. 38]. So many Quakers settled near William Gifford’s home that in 1720 the first West Falmouth Meeting House, which is the place of worship similar in importance to the Christian Church or Jewish Temple, was built. Although from the beginning Quakers of West Falmouth were active in local government [Mangelsdorf, 1986], many Quakers avoided contact with others, even to the extent of partially isolating themselves from other English settlers in Falmouth. Consequently, the accounting practices of West Falmouth Quakers in the 1800s evolved differently from those of Falmouth residents. Also, since West Falmouth Quakers engaged mostly in small cottage industries, their accounting practices differed from those of the more urban Philadelphia Quaker mer-

3Many of the early Quaker missionaries were women because Quakers believed in equality of the sexes:

Though persecution of Quakers was widespread in the American colonies, it reached its most savage heights in New England. The Puritan reverence for order and the disorder they perceived in Quakerism contributed to their hostility. So did the Puritan emphasis on male authority as contrasted with the Quaker practice of equality between men and women . . . [T]he fear that Quakerism would introduce gender equality must certainly have frightened the Puritans. Since Puritan values, including the idea of the male as the sole authority figure in each household, came to dominate the American culture, this early encounter between Quakerism and Puritanism is particularly relevant [Bacon, 1986, p. 28].
chants, who became well known for their shrewdness in business.\textsuperscript{4}

West Falmouth Quakers, or "Friends" as they referred to themselves, were known for strict adherence to their religious beliefs and for their simple lifestyle. To them, religion came first. Business and other worldly occupations were secondary. Perhaps they were best known for their simplicity, frugality, honesty, and equality — qualities that are reflected in their accounting records.\textsuperscript{5}

Also, since it was a religious imperative that Quakers pay their debts,\textsuperscript{6} failure to honor debts constituted grounds for expulsion from Friends Meeting:\textsuperscript{7}

One member was put out of the Society for allowing himself to become extended beyond his ability and resources so as to be unable to pay his debts [Quakers in West Falmouth: 1685-1885, p. 8].

Other characteristics of Quakers were that they had no authority figures, and thus no salaried preachers;\textsuperscript{8} they answered only to God. Although they had been persecuted and heavily fined because of their religious beliefs, they were supposed to be tolerant of the beliefs of others.\textsuperscript{9} Contrasted with the Shakers, who also came from England, the Quakers were more independent as individuals. In Quakerism, the family, not the community, was the smallest social unit. Also, West Falmouth Quakers maintained a scanty subsistence and were not known for their business acumen

\textsuperscript{4}Although the accounting records of more affluent Philadelphia Quakers, such as William Penn, have been analyzed extensively [Dunn, et. al., 1981], little attention has been paid to the records of Quakers of West Falmouth.

\textsuperscript{5}These qualities are recommended on religious grounds as being essential to the austere simplicity of life that truth demanded. Although Quakers do not have a formal written creed, their thinking has been recorded in a book referred to as \textit{Christian Faith and Practice} [London Yearly Meeting, 1973]. The secondary importance of business is cited in paragraph 423 of this book; simplicity is discussed in paragraph 433; frugality in paragraph 418; honesty in paragraph 424; and equality in paragraphs 648, 649, 650.


\textsuperscript{7}Expulsion from Meeting was analogous to excommunication for Catholics or shunning for Amish. At Meeting, Quakers sat quietly together to hear God's continuing revelations. Quakers had no ordained ministers, sacrament or official creeds. Meeting was the center for worship.

\textsuperscript{8}Paragraph 423, \textit{Christian Faith and Practice} [London Yearly Meeting, 1973]. Mangelsdorf [1986] notes that the Quakers' refusal to pay taxes to support the Congregational church and minister in Falmouth was a significant town issue in the early 1700s.

\textsuperscript{9}\textit{Christian Faith and Practice}, paragraph 223.
as were the Shakers at Pleasant Hill, Kentucky [Kreiser and Dare, 1986, p. 20], and other more affluent Quakers in Philadelphia [Dunn et al., 1981].

ANALYSIS OF ACCOUNTING RECORDS OF WEST FALMOUTH QUAKERS

The records examined are 18th and 19th century minute books and account books from the private collections of the Gifford and Bowerman families, early West Falmouth Quakers. The well-preserved records appear on old, brown wrapping paper. Thus, the early Quakers are among America's first recyclers, a reflection of their frugality. To assist the authors in interpreting these records, frequent interviews were held with Cecelia Lucinda Bowerman [1989] and David Douglas [1990], both of West Falmouth Friends Meeting.

Books of Prince Gifford, Jr., (1771-1853)

In many Quaker families, each family member engaged in a different industrious activity, and transactions for separate activities were recorded in separate books. Although whaling was the major industry in nearby Falmouth, most West Falmouth Quakers engaged in small cottage industries such as carpentry and farming. For example, there is a book for all transactions in furniture making. Exhibit 1 shows two pages from this "minute" book, which covers three years and three months, from September 1796 to January 1800 [Gifford, 1796]. During that period Prince Gifford, Jr. prepared records reflecting the construction and sale of fourteen mahogany desks, eight birch desks, three cherry tree desks, three mahogany clock cases, two flytable chairs, six table tops, eight mahogany tables, ten birch tables, six cherry tree tables, two knife trays, and one birch stand.

The first entry on the left-hand page in Exhibit 1 pertains to the "9th of the 10 m 1796;" i.e., October 9, 1796. The month of the year is numbered, reflecting Quaker simplicity, which precluded them from using what they considered to be pagan names for the days of the week and months of the year [Frost, 1973, p. 193].

Frugality, it should be noted, has not been an attribute exclusive to Quakers. Puritans were also known for their frugality. For both groups, frugality is a religious tenet. Also, paper was scarce and expensive.
Exhibit 1

Record of Prince Gifford, Jr.

Minute Book

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 1797</td>
<td>To the making of a mahogany Desk of 6 ft. 6 in.</td>
<td>8</td>
</tr>
<tr>
<td>Jul 1797</td>
<td>For labour &amp;c.</td>
<td>2-50</td>
</tr>
<tr>
<td>Jul 1797</td>
<td>For labour &amp;c.</td>
<td>1-00</td>
</tr>
<tr>
<td>Jul 1797</td>
<td>For making of 12 Birk desks</td>
<td>15-00</td>
</tr>
<tr>
<td>Jul 1797</td>
<td>For making of 1 mahogany Desk</td>
<td>8-50</td>
</tr>
<tr>
<td>Jul 1797</td>
<td>For making of 1 mahogany Desk</td>
<td>2-30</td>
</tr>
<tr>
<td>Jul 1797</td>
<td>For making of 1 mahogany Desk</td>
<td>2-30</td>
</tr>
<tr>
<td>Jul 1797</td>
<td>For making of 1 mahogany Desk</td>
<td>2-30</td>
</tr>
</tbody>
</table>
The entry is:

Benjamin Sanford Dr, for the makeing of a Mehogany Desk At 10.0; To Another mehogany Desk at 10.0; Dito A mehogany Clockcase At 10.0.11

The amount earned was first entered, and then an "X" was marked below the date of the original entry when the debt was settled. Although the date of cash receipt or other method of payment was not recorded, it is clear that the "X" indicated payment was settled either immediately upon completion of the work or later. This is a single-entry bookkeeping system in form.

The second entry is:

Credet for cash . . . 15.0
Dito for three pounds of glue at thirty four cents Pr lb. . . . 1.0.

This entry is puzzling because it is for the 9th month, even though it is the second entry on the page, after an entry for the 10th month. Apparently, the recordkeeper, though he may have been honest, was somewhat disorganized. Additionally, there is no explanation given for the $15.00 cash payment. This is consistent with other early American records which did not reflect revenue and expense accounts, there being no need to keep records for income tax and external reporting purposes [Kreiser and Dare, 1986, p. 23].

The third entry is:

To two Casteel fiels at twenty two cts. . . . 0.22.

"To" generally represents a charge to an account [Kreiser and Dare, 1986, p. 21; Dunn et al., 1981]. However, "to" was not used consistently. For example, in Exhibit 1, "to" and "Dr" (debit) are used in different transactions to reflect charges to the same account, mahogany desks. The "X"s indicate that the transactions were eventually settled, but the precise dates and method of settlement are not determinable.

Prince Gifford, Jr. also kept a minute book to record non-furniture-related transactions [Gifford, 1825]. An example of two pages from this book appears in Exhibit 2. This book also reflects the single-entry system:

11The random capitalization is indicative of the lack of standardization of grammar at the time.
Exhibit 2
Record of Prince Gifford, Jr.
Minute Book

[Handwritten text on the exhibit]
4th mo. 10th 1825 ... this Day Prince Gifford Jr. Paid Cptn Henry Weeks $10-00 to freight the Sloop Magnet ... Maltiah Gifford paid half of the above.

Maltiah was Prince, Jr.’s brother. The two were known as “the brothers with one pocketbook” [Bowerman, 1989], and apparently shared ownership of the Magnet, a small sailing vessel. In the second entry, the third month of 1825, cash was charged when Ephraim Sanford either borrowed from, or lent to, Prince Gifford, Jr. sixty cents for a school bill. In the fourth month on the twentieth day, Ephraim Sanford transacted with Prince Gifford and Maltiah Gifford for $1.86 for a half cord of wood. Again the “X”s over the entries mean that the obligations were satisfied. However, consistent with transactions recorded in the minute book for furniture-making, the date and method of payment were not recorded.

Exhibit 3 presents a page from a book entitled Prince Gifford Jr. His Book of Accounts [Gifford, 1811]. This book resembles a ledger because each page shows a running total; i.e., Exhibit 3 shows the itemization of the status of livestock inventory. The entries reflect the use of a common pasture by the West Falmouth Quakers:

We turned 55 old sheep in to the Wood and 27 Lambs ... kept at home 12 old sheep and ... 7 lambs ... turned to Shopquit 11 weathers ... the hole number ... 112 sheep ... turned rem among sheep.

In 1812, the next year, they turned 61 old sheep and 20 lambs into the wood; they kept 10 and 2; turned to shopquit 22 weathers and 1 ram. This totals 116. They also sold some lambs to Joseph Hatch.

Summary of Records of Prince Gifford, Jr. A single-entry bookkeeping system, recording the date of transaction but not the date or method of payment was used by Prince Gifford Jr., An “X” was used to reflect that the account was settled. Since the recorded transactions of Prince Gifford, Jr. were solely with other Quakers, acceptable settlement was quite certain, and thus the date of payment was of little interest or importance. These observations are consistent with single-entry systems found in the

---

12Inconsistent use of “To” and “By,” and “Dr” and “Cr” renders interpretations difficult.
13“Weather” is another common spelling of “whether,” a castrated lamb.
Exhibit 3
Record of Prince Gifford, Jr.

His Book of Accounts

5 Nov 1811. We burned 55 old sheep into the wood and 27 lambs.

2. We kept at home 12 old sheep and 7 lambs.

2. We turned to shotquit 11. weathers.

The whole number 112 sheep.

5 Feb 1812. We turned Rems among sheep.

1812. We turned 61 old sheep in to the wood and 20 lambs.

1812. We kept in pasture 100 old sheep and 2.

1812. We turned to shotquit 22 weathers and one lamby 1.

1812. We sold 8 lambs to Joseph Hatast this year. The whole number is and lambs.

R.M. Shep.
record books of Lemuel Gifford [1849] and another, but unknown recorder [Unknown Recorder, 1826].

Littleton sets forth the following "antecedents" or "ingredients" of double-entry bookkeeping [1981, p. 12]:

The *Art of Writing*, since bookkeeping is first of all a record; *Arithmetic*, since the mechanical aspect of bookkeeping consists of a sequence of simple computations; *Private Property*, since bookkeeping is concerned only with recording the facts about property and property rights; *Money* (i.e., a money economy), since bookkeeping is unnecessary except as it reduces all transactions in properties or property rights to this common denominator; *Credit* (i.e., incompleted transactions), since there would be little impulse to make any record whatever if all exchanges were completed on the spot; *Commerce*, since a merely local trade would never have created enough pressure (volume of business) to stimulate men to coordinate diverse ideas into a system; *Capital*, since without capital commerce would be trivial and credit would be inconceivable [emphasis in original].

There was no need for double-entry bookkeeping since these early Quakers: (1) did not consider credit risk or interest, viewing transactions as essentially complete whether settled for cash, bartered, or promise; (2) generally engaged in small cottage industries and traded locally; and (3) had little capital.

The authors found no financial statements summarizing business operating activities or financial position. According to Littleton [1981, p. 27], a lack of statements is consistent with a single-entry system, which requires no duality because there are no gains or losses from ventured capital, i.e., there are no proprietary calculations in these books. The accounting records were used solely for internal stewardship purposes to keep track of who had what and who owed whom how much. This is markedly different from Shaker records, which did include financial statements [Kreiser and Dare, 1986, p. 24].

Barter was a common mode of exchange, and many obligations were settled at a time subsequent to the transaction. Hence, stewardship was the principal purpose of the records. No evidence is available to indicate how soon debts had to be settled because no specific mention is made of how timely the payment should have been; nor were dates of payment provided. The only record of payment is the "X." It is not clear from these records whether Quakers would have deemed the date of payment unimportant in
dealings with non-Quakers because no such dealings were recorded in the minute books.

Books of Accounts of Maltiah Gifford

Exhibit 4 shows Maltiah’s transactions with his brother Prince, Jr. [Gifford, 1805]. This exhibit resembles a typical 18th century general ledger accounts receivable account, apart from the “X”s. The left page contains the debits and the right page the “Contray Credit.” Also Maltiah recorded the date the account was settled:

29th day 12 mo. . . . Prince Gifford Jr.
Cr. 31.10 . . . $31.10

Entries are still marked with an X indicating payment, as in the single-entry system used by Prince, Jr. The numbers at the top of the page imply that Maltiah used a numerical indexing system in his ledger. Generally, it appears that Maltiah was more methodical than his brother, Prince, Jr. An analysis of other entries shows that Maltiah transacted with other Quakers in West Falmouth as well as non-Quakers in nearby Falmouth. His non-Quaker associations may have caused him to view business and business accounts as more important than Prince, Jr. viewed them.

Books of Prince G. Moore (1812-1885)

Exhibit 5 shows an example from the account book of Prince Gifford’s grandson, Prince G. Moore [1845]. The transactions represent fees earned for visiting and evaluating schools in various school districts in the Town of Falmouth. The payment is “By cash from Treasurer” of the Town of Falmouth. The record shows that Prince G. Moore transacted more than his grandfather with Falmouth residents. Nevertheless, consistent with the Quakers, Prince G. Moore recorded only the transaction date, not the date the account was settled. In contrast to Quakers who traded with each other, this record of transactions with non-Quakers does not use the “X” to mark settlement of the account.

In his “Record Book,” Prince G. Moore recorded the names of individuals with whom he transacted [Moore, 1860], such records representing the analog of modern accounts receivable subsidiary ledgers. In Exhibit 6, the account of John Weeks, a fellow Quaker, is shown. Prince rented oxen and horses and sold wood, potatoes, and other items to John Weeks, totaling $14.86. The transactions
### Exhibit 6

**Record of Prince Gifford Moore**

**Record Book**

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>to oxen and show 11/2 day</td>
<td>$0.62</td>
</tr>
<tr>
<td>to oxen to carry 12 hrs</td>
<td>$0.45</td>
</tr>
<tr>
<td>to oxen to cart stone 11/2 hours</td>
<td>$0.17</td>
</tr>
<tr>
<td>to 1 horse of mow</td>
<td>$4.00</td>
</tr>
<tr>
<td>to oxen to haul stone 4 hours</td>
<td>$0.50</td>
</tr>
<tr>
<td>to oxen to haul stone 8 3/4 hours</td>
<td>$1.09</td>
</tr>
<tr>
<td>to oxen an cart 1 day</td>
<td>$1.25</td>
</tr>
<tr>
<td>to 1 bushel potatoes</td>
<td>$0.60</td>
</tr>
<tr>
<td>to oxen and cart 1/2 day</td>
<td>$0.62</td>
</tr>
<tr>
<td>to oxen and cart 1 day</td>
<td>$1.25</td>
</tr>
<tr>
<td>to oxen and cart 1/2 day</td>
<td>$0.62</td>
</tr>
<tr>
<td>to oxen and cart 1/2 day</td>
<td>$0.62</td>
</tr>
<tr>
<td>to oxen and cart 2 1/2 hours</td>
<td>$0.91</td>
</tr>
<tr>
<td>to oxen and cart 1/2 day</td>
<td>$0.62</td>
</tr>
<tr>
<td>to oxen to plow 1/2 day</td>
<td>$0.62</td>
</tr>
<tr>
<td>to horse and driver</td>
<td>$0.93</td>
</tr>
<tr>
<td>to plowing scud</td>
<td>$1.50</td>
</tr>
<tr>
<td>to oxen to harrow</td>
<td>$0.12</td>
</tr>
<tr>
<td>to plowing cute come</td>
<td>$0.50</td>
</tr>
<tr>
<td><strong>Credit by 14 4/12 hours more</strong></td>
<td>$14.38</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$9.50</td>
</tr>
</tbody>
</table>
are dated only by year (1860), not day and month. The settlement
date is not recorded, which is consistent throughout the book and
with the practice of most earlier West Falmouth Quakers. The
lines through the entry verify that the account was settled. The
credit or payment highlights the importance of the barter system:
"Credit by 14 1/2 hours work ... 9.64." John Weeks thus earned
about 67 cents per hour.

Summary of West Falmouth Quaker Records

The accounting records of Prince Gifford, Jr. reflect relative
social and business isolation. He used a single-entry system, only
recorded the transaction date and not the date of settlement, and
drew "X"s through transactions to indicate that settlement was
made. In contrast to his brother, Prince Gifford, Jr., Maltiah
Gifford transacted and associated more with non-Quakers.
Maltiah recorded both the date of transaction and date of payment
or settlement, but also drew "X"s through settled transactions.
Thus Maltiah combined Quaker and non-Quaker customs. Prince
G. Moore, Prince Gifford's grandson, also traded with both Quak-
ers and non-Quakers. In his transactions with West Falmouth
Quakers, Prince G. Moore drew lines through each entry to verify
that the account was settled. He did not draw lines through trans-
actions with non-Quakers. True to his Quaker tradition, Prince G.
Moore did not record the date of payment.

ACCOUNTING RECORDS OF NEARBY NON-QUAKERS

In contrast to West Falmouth Quaker records, non-Quaker
records are neatly bound, non-recycled ledgers and journals.

David Crowel, Jr., a Non-Quaker Living in West Falmouth

Exhibit 7 shows recorded transactions between David Crowel,
Jr. and Prince Gifford, Jr. during 1799 [Crowel, 1797]. Notice that
the English pound is the currency used; whereas entries from the
same period, i.e., entries from Prince Gifford, Jr.'s book for furni-
ture-making from 1796-1800 were recorded only in U.S. dollars.
**Exhibit 7**

**Record of David Crowel, Jr.**

**Book of Accounts**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1797</td>
<td>July</td>
<td>1 80 0 1 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 11 0 1 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 2 0 2 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 3 0 3 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 4 0 4 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 5 0 5 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 6 0 6 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 7 0 7 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 8 0 8 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 9 0 9 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 10 0 1 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 11 0 1 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 12 0 2 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 13 0 3 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 14 0 4 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 15 0 5 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 16 0 6 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 17 0 7 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 18 0 8 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 19 0 9 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 20 0 1 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 21 0 1 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 22 0 2 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 23 0 3 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 24 0 4 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 25 0 5 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 26 0 6 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 27 0 7 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 28 0 8 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 29 0 9 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 30 0 1 0 6</td>
</tr>
<tr>
<td>1797</td>
<td>July</td>
<td>1 31 0 1 0 6</td>
</tr>
</tbody>
</table>

**Notes:**
- The entries are handwritten and appear to be for accounting purposes.
- The amounts are in a format that includes a combination of numbers and letters, possibly indicating a specific accounting method or currency.
- The entries are dated from 1797, suggesting a historical record kept by David Crowel, Jr.
Another contrast between Prince, Jr.’s and David, Jr.’s books is that David used months by name, instead of by number as was the Quaker custom. In Crowel’s books of account, “X”s are not marked through entries; instead the date of the cash payment is clearly recorded.

1797 August 9th       By Cash 10/6 ...

However, it is puzzling to note that the date of the original transaction is not recorded. It appears that, in contrast to West Falmouth Quakers who recorded the transaction date, non-Quakers during the 18th century recorded only the settlement date. The non-Quakers may have viewed the uncertainty of cash collection to be resolved only when the cash was actually collected because they were not bound by religion to pay their debts. Neither West Falmouth Quakers nor non-Quakers recognized the significance of the interval between the transaction date and settlement date during the eighteenth century; i.e., both dates are not recorded.

Watson Shiverick, a Non-Quaker Living in Falmouth

Watson Shiverick kept a “Store Book” for his general store in Falmouth [Shiverick, 1828], a page from which appears in Exhibit 8. The record is typical of other Falmouth small business records of the time. The recorded transaction is with Josiah Jackson, and the date is December 23, 1828. The entry shows that this account was partially settled with a note and contrasts to the eighteenth-century records of West Falmouth Quakers, who generally did not accept notes in payment of receivables in the normal course of trade; nor did they charge interest on receivables.

An additional contrast is evidenced by another entry in the Store Book of Watson Shiverick. An entry to the account of William D. Smith recorded both the transaction and settlement dates. The credit was:

credit by cash and Negro hired for 3 weeks in full ... 23.81 1/4.

The Negro was an indentured servant. In Quaker records of the same period, there is no evidence that indentured servants were used because Quakers were proponents of racial and sexual equality, and did not believe in owning servants. Quakers had hired help, but not indentured servants.
Exhibit 8
Record of Watson Shiverick
Store Book

[Handwritten entries]

[Receipts and expenditures]

[Total amount]

150

By ear
By note in full

250
400
Summary of West Falmouth and Falmouth Records

Table 2 summarizes the observations on each of the eight Exhibits. All Quakers used the “X” to record settlement of transactions with other Quakers. Prince Gifford, Jr., used a single-entry accounting system marking an “X” to indicate that obligations were settled. Prince Gifford, Jr.’s brother, Maltiah also marked payment with Quakers with an “X.” Prince Gifford, Jr.’s, grandson, Prince G. Moore used the “X” to indicate settlement on his transactions with other Quakers but not in his transactions with non-Quakers. The “X”s show the importance Quakers placed on paying their debts. Non-Quakers did not use the “X” to indicate settlement.

When only one date, i.e., either the transaction date or the payment date, was recorded, West Falmouth Quakers recorded the transaction date, and Falmouth residents recorded the payment date. This may reflect the difference in religion. Quakers strictly adhered to the requirement that they pay their debts in a

Table 2
Summary of Exhibits

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>First Year</th>
<th>Books of:</th>
<th>X Was Used</th>
<th>Transaction Date</th>
<th>Payment Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEST FALMOUTH QUAKERS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1796</td>
<td>Prince Gifford, Jr.</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1825</td>
<td>Ditto</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1812</td>
<td>Ditto (ledger)</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1805</td>
<td>Maltiah Gifford</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1845</td>
<td>Prince G. Moore (transactions with non-Quakers)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1860</td>
<td>Prince G. Moore (transactions with Quakers)</td>
<td>X**</td>
<td>X*</td>
<td></td>
</tr>
</tbody>
</table>

FALMOUTH RESIDENTS:

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>First Year</th>
<th>Books of:</th>
<th>X Was Used</th>
<th>Transaction Date</th>
<th>Payment Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1799</td>
<td>David Crowel</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1826</td>
<td>Shiverick</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**Prince G. Moore drew lines through settled transactions, instead of crossing them with X.
*Transactions were dated by year only.
timely fashion and thus there was little uncertainty of collection.

When Falmouth residents began accepting notes to settle trade accounts, they recorded the transaction date as well as the payment date. This reflects their appreciation of interest. In contrast, Quakers of the period did not charge interest.

The accounting records of the West Falmouth, Massachusetts Quakers reflect a simple lifestyle in which frugality, equality, simplicity, and honesty prevailed. Frugality is reflected by the recycled paper on which Quakers kept their accounting records. Failure to accept the labor of indentured servants as barter, at a time when non-Quakers in nearby Falmouth did so, is consistent with equality. Simplicity and honesty are reflected because, in their dealings with each other, they recorded only the date of the transaction and marked settlement with an "X." These records of Quakers in West Falmouth are simple and more primitive in comparison to the records of contemporary Quakers in Philadelphia. Contrasted to West Falmouth Quakers, Philadelphia Quakers used double-entry accounting as early as the 1670s, which reflects the fact that Philadelphia Quakers were generally more worldly and successful in business.

Finally, the records of West Falmouth Quakers support Littleton's hypothesis that a single-entry accounting system will exist (1) when there is no credit or interest because transactions are viewed as complete whether settled for cash, barter, or promise; (2) when the trade is local; and (3) when there is little capital-based industry.

REFERENCES

A HISTORY OF POOLING OF INTERESTS
ACCOUNTING FOR BUSINESS
COMBINATIONS IN THE UNITED STATES

Abstract: This paper traces the development of pooling of interests accounting for business combinations from 1945 to 1991. The history of the pooling concept is reviewed chronologically with particular emphasis on the events of 1969-1970 that were related to the most recent pronouncement on the subject, Accounting Principles Board (APB) Opinion No. 16. Early in its life (1974), the Financial Accounting Standards Board (FASB) placed a project on its agenda to reconsider pooling of interests accounting. That project was removed from the FASB's agenda in 1981. APB Opinion No. 16 has gone essentially unchanged as it relates to the accounting for a business combination as a pooling of interests. Resolution of implementation issues has been left largely to the Securities and Exchange Commission and the accounting profession. The FASB has a project on its agenda on Consolidations and Related Matters that may impact pooling of interests accounting. There also is some pressure for the FASB to revisit accounting for business combinations.

Current authoritative literature, Accounting Principles Board (APB) Opinion No. 16, "concludes that the purchase method and the pooling of interests method are both acceptable in accounting for business combinations, although not as alternatives in accounting for the same business combination" [par. 8]. If a business combination meets all twelve specified conditions [see APB Opinion No. 16, Pars. 46-48], it must be accounted for as a pooling of interests. All other business combinations must be accounted for as purchases.

The pooling of interests method of accounting for business combinations has generated debate since its inception. In a pooling of interests, a new basis of accounting is not permitted. Rather, the assets and liabilities of the combining companies are carried forward at their recorded amounts and retained earnings of the companies are combined [APB Opinion No. 16, Par. 12].
Wyatt [1963, p. 19] suggests a starting point for the theoretical foundations of the concept:

While the term “pooling of interests” probably did not evolve until later, the two principal accounting characteristics of the “pooling” accounting treatment were recognized as early as the 1920s. These two characteristics involve (1) the carrying forward of the retained earnings (earned surplus) of the constituents as retained earnings of the resultant entity, and (2) the carrying forward of the book values of the assets of the constituents as the book value of the assets of the resultant entity.

A survey of the literature suggests that the major issue in these early years was earned surplus. The accounting concept that a corporation may not begin business with a surplus was well established [see Dickinson, 1914, p. 185].

Wildman and Powell [1928, p. 224] challenged not only this concept regarding earned surplus, but also the revaluation of assets in a business combination. Their comments sound very much like a modern argument in support of pooling of interests.

A highly controversial point related to consolidations concerns the idea that corporate units lose their surplus when legal consolidation is effected by means of a newly organized successor corporation. Those who contend for this view argue that it is impossible for a new corporation to acquire surplus without having operated a sufficient length of time to have derived surplus from earnings. In other words, a corporation may not begin business with a surplus. Further, they hold that the surplus of a constituent company becomes capitalized when that company becomes consolidated.

The argument just advanced appears to be founded on a view that looks to the form rather than to the substance of the matter. Recognition should be given, it seems, to the fact that a new corporation is organized merely as a legal convenience. The value of assets prior to consolidation is not changed necessarily by the legal formality of transferring them to a new owner. The liabilities of constituents are neither increased nor decreased by the process of combination. Under such circumstances, it would appear that any excess of assets over liabilities remains the same both before and after consolidation. Finally, if the excess represented surplus available for dividends before consolidation, it must necessarily represent the same thing after consolidation.
In the 1932 edition of *Accountants' Handbook*, the subject of the effect of reorganizations on surplus was discussed:

... Where there has been no change of beneficial interest, as where stock in the holding company is exchanged for a controlling interest in the stock of the subsidiary or where two companies are merged and a new unit has grown out of the two previously existing identities, there is no absorption of surplus unless an intention exists to do so, in which event the equivalent of a stock dividend has been paid [Paton, ed., 1932, p. 950].

Further evidence that the concept of carrying forward the earned surplus of merging companies had been accepted by the early 1930s is provided by Montgomery [1934, pp. 416-17]:

When two or more corporations merge or consolidate, the owners may assume that the old entities are continuing in a slightly different form and that the combined earned surplus of all will form the aggregate earned surplus of the new entity . . . .

When no new capital is contributed, it can hardly be said that capital is being paid out in dividends, and this supports the argument that in a merger the earned surplus accounts of the predecessor companies may be continued.

There is general agreement that the first time the term "pooling of interests" was used to describe an accounting treatment was in connection with the February 1946 merger of Celanese Corporation of America and Tubize Rayon Corporation [Black, 1947, pp. 214-20]. A classic case of pooling of interests (although not referred to as such) took place, however, on September 30, 1936, when Universal Steel Company and Cyclops Steel Company merged into Universal-Cyclops Steel Corporation [Listing Application to New York Stock Exchange, April 14, 1937]. The merger was consummated through an exchange of equity shares whereby both the preferred and common stockholders of the constituent corporations became stockholders of the combined entity. One of the earliest uses of the term "pooling of interests" was in a Federal Power Commission case in 1943. The case involved two groups of properties held by different persons who desired to merge into one company in which both groups would be shareholders. Wyatt [1963, p. 22] states that the Commission ruled as follows:

... While it may be tolerable to allow a buyer to capitalize the purchase price he may have paid . . . there is surely
nothing to be said in favor of allowing two companies mutually to pool their interests, and from that time forward to treat as vested the values they happened then to have.

Wyatt [1963, p. 23] clarified the use of the term at this period in time:

The term “pooling of interests” was used at this early date to describe a combination transaction between various interests in which these interests fused their divergent parts into one enterprise. The term was not used to describe the accounting treatment proposed; instead, the accounting treatment flowed from the manner in which the Commission viewed the transaction and its responsibility to maintain reasonable utility rates.

The concept of pooling of interests accounting apparently was an outgrowth of the discussions and transactions that took place during the 1920s, 1930s, and the early 1940s. “The earliest use of the term by an arm of the American Institute was in the report of the committee on public utility accounting which was presented to Council on May 1, 1945” [Wyatt, 1963, p. 23]. In discussing several accounting questions that had been proposed by the Federal Power Commission, the committee stated that one hypothesis which needed careful consideration was “that no new cost can result from a transaction that . . . may be regarded as effecting a pooling of interest” [American Institute of Accountants, 1946, p. 152]. From this first public recognition of the expression, the theory of pooling has evolved to that which is enunciated in APB Opinion No. 16.

The purpose of this paper is to trace the development of pooling of interests accounting for business combinations from 1945 to 1991. The history of the pooling concept is reviewed chronologically with particular emphasis on the events of 1969-1970 that were related to the most recent pronouncement on the subject, APB Opinion No. 16.

A CHRONOLOGY OF THE DEVELOPMENT OF POOLING

1945-1950

The period from 1945 to 1950 represented a transitional period, both in the methods used to accomplish business combinations and in the techniques used to account for them. A shift from combinations involving exchanges of assets to ones effected through exchanges of equity securities was evident. As this shift
Rayburn and Powers: A History of Pooling of Interests Accounting

was taking place, a formal distinction began to emerge between two types of combinations: (1) combinations where a strong degree of affiliation existed prior to the combinations, and (2) combinations where the constituents had no prior family type relationships and in which any existing affiliation was merely incident to normal business activities. It was during this period that the term "pooling of interests" became more closely related to an accounting treatment rather than a description of a type of business transaction [Wyatt, 1963, pp. 21-24].

During this time span, there were seven dates that are milestones in the development of pooling of interests accounting: (1) December 1944, (2) January 20, 1945, (3) June 7, 1945, (4) October 20, 1945, (5) February 1946, (6) February 1950, and (7) September 1950.

December 1944

The significance of this date is related to the publication of Accounting Research Bulletin (ARB) No. 24 [Committee on Accounting Procedure, 1944]. ARB No. 24 dealt with some of the problems involved in accounting for intangible assets. No reference was made to pooling of interests, but in retrospect it may have marked the beginning of the need for a new method of accounting for business combinations.

ARB No. 24 was an initial step in the development of an official position on goodwill. It incorporated current practice into theory and classified intangible assets into type (a) and (b) as follows:

(a) Those (intangible assets) having a term of existence limited by law, regulation, or agreement, or by their nature (such as patents, copyrights, leases, licenses, franchises for a fixed term, and goodwill as to which there is evidence of limited duration).

(b) Those (intangible assets) having no such limited term of existence and as to which there is, at the time of acquisition, no indication of limited life (such as goodwill generally, going value, trade names, secret processes, subscription lists, perpetual franchises, and organization costs) [p. 1].

The cost of type (a) intangible assets was to be "amortized by systematic charges in the income statement over the period benefited." Three alternatives were made available for recording the cost of a type (b) intangible: (1) write it off immediately against
either paid-in capital or earned surplus, (2) systematically amortize it against revenues over its estimated remaining useful life, or (3) retain it on the corporate records for an indefinite period. Although a direct write-off of goodwill to capital or earned surplus was an acceptable treatment, the committee tried to discourage its use [ARB No. 24, p. 3].

In retrospect, this action probably gave impetus to the development of the pooling concept since pooling avoids the need to record goodwill. Up to this time, business combinations accomplished by any means could be accounted for as purchases with immediate write-off of the goodwill to capital or earned surplus. The effect was to eliminate goodwill from the records without affecting current or future reported earnings. The language used in ARB No. 24 implied that the winds of change were blowing and that the direct write-off procedure, although currently acceptable, would be given more attention in the future.

January 20, 1945

On this date, the Securities and Exchange Commission (SEC) issued Accounting Series Release (ASR) No. 50 [1945]. This document concerned the propriety of writing down goodwill by charging it to capital surplus. The SEC, through its Chief Accountant, William W. Werntz, took the position that henceforth no goodwill could be written off to capital surplus [ASR No. 50, p. 1].

Prior to this release, mergers could be arranged so that either no goodwill was created, or the goodwill could be charged directly to surplus, earned or capital. Spacek [1970, p. 40] stated that, faced with the declaration that goodwill could no longer be charged to capital surplus, corporate managements invented the term “economic merger” or “pooling of interests.” The pooling of interests method avoids the need to record goodwill because it is assumes that no new basis of accountability arises.

June 7, 1945

William W. Werntz, Chief Accountant of the SEC from May 1938 to April 1947, presented a paper on “Corporate Consolidations, Reorganizations, and Mergers” [1945, pp. 379-87]. Although the term “pooling of interests” was not used by Werntz, he did discuss methods of differentiating between two different types of business combinations.

Arguing against the thought that “specific accounting results follow automatically from the selection of a particular method of
combination,” Werntz stated that more weight should be given to four factors as criteria or tests of the accounting to be followed:

1. The relative size of the predecessors; that is, is one company so much larger than the other that it is obviously buying up a business rather than truly merging?
2. The degree of affiliation among the predecessors.
3. The extent to which there is a change in ownership in the course of the combination.
4. The nature and extent of prior business relations between the two companies.

It was hypothesized that the application of these four criteria would be very useful to differentiate between mergers, consolidations or other forms of combinations that resulted in a new economic enterprise, and those that were in reality the continuance of an old business under a new corporate structure.

Two of Werntz’s four criteria were subsequently incorporated in *Accounting Research Bulletin No. 40* as the basis to differentiate a purchase and a pooling of interests [Committee on Accounting Procedure, 1950].

**October 20, 1945**

As stated previously, the earliest use of the term “pooling of interests” by a committee of the American Institute of Accountants (AIA) was in the report of the Committee on Public Utility Accounting on May 1, 1945. More important, however, is the fact that after considering the report of the Committee on Public Utility Accounting, the Committee on Accounting Procedure wrote a letter to the executive committee stating “the committee assumes that the term ‘pooling’ as here used refers to a situation in which two or more interests of comparable size are combined and would not include a transaction by which the interests of a small company are combined with those of a company that is substantially larger” [Committee on Accounting Procedure, footnote 3, October 20, 1945]. Andrew Barr, Chief Accountant of the SEC from November 1956 to January 1972, later said “this is the size test applied by the SEC staff until the rug was pulled out from under us in Celanese” [Barr, May 17, 1979].

**February 1946**

This date marks the merger of Celanese Corporation of America and Tubize Rayon Corporation into Celanese Corpora-
tion of America [see Black, 1947, pp. 214-20]. Regardless of the fact that Tubize was only one-fifth the size of Celanese on the basis of total assets, and one-third as large on the basis of common stock equity, the combination was accounted for as a pooling of interests. At this early stage, four years before a committee of the AIA would formally recognize the pooling concept, the comparable size criterion was beginning to erode. Barr [1959, p. 178] reported later that “from this point on, relative size was considered to be less important than other factors in considering whether a business combination met the test for pooling of interests accounting.”

In Black’s [1947, p. 215] discussion of the Celanese/Tubize merger, he attempted to distinguish (as Werntz had earlier done) between two types of business combination transactions. Referring to the two types as “acquisitions” and “mergers” (later to be referred to as purchases and poolings of interests), he differentiated them by stating that in an acquisition, no ownership interests continue; whereas, “in a merger there is a pooling or commingling of the rights of the various security holders, the assets, liabilities, and operations of the merging corporations being combined, like with like, to the end that future operations of the continuing corporation can be carried on a combined basis with the attendant economies and other advantages.”

Black [1947, p. 215] suggested the following procedure for recording a true merger:

It seems clear that the application of sound accounting methods to a merger . . . results, except for any pre-existing inter-company indebtedness, in the single arithmetical addition of assets, liabilities, and net worth. In general, the continuing corporation should arise from the merger with an earned surplus equal in amount to the sum of the earned surpluses of the constituent corporations.

Although Celanese was the dominant corporation in size, Black proposed two criteria: (1) comparative size and importance in the industry and (2) continuity of ownership interest. The importance of the Celanese/Tubize merger is reflected by the fact that ARB No. 40 later required the same accounting treatment for business combinations deemed to be poolings of interests, i.e., the book values and the retained earnings of the constituent companies are carried forward.
February 1950

An article by Wilcox [1950, p. 102] is typical of the state of confusion that existed with regard to accounting for business combinations at this point in time. As Werntz and Black had earlier done, Wilcox differentiated between a merger (pooling) and a purchase. To him, a merger took place "when the nature of a combination is a pooling of interests and there is no substance of buying and selling . . . ."

In a discussion of the criteria for a merger, it was suggested that relative size, continuity of ownership, and continuity of management were particularly important. While recommending that these criteria be established, Wilcox cautioned that they should be set up as guidelines for the professional accountant and not as rigid rules.

The mechanics of recording a merger were detailed. Included in the description was the concept that no new costs were created and that the earned surpluses of the combining firms should be joined, with adjustments to capital surplus and/or earned surplus contingent on the resulting relationship of the combined stated capital.

The unique contribution of this article relates not only to its similarity to ARB No. 40, which was published later in the same year, but also to the positions taken by Wilcox [1950, p. 106] with regard to the revaluation of assets in a merger, partial poolings, and earned surplus. While pointing out that no new costs are established in a merger, Wilcox also said that "a merger creates an especially appropriate occasion for any useful revaluation for which there exists authoritative accounting support applicable in the circumstances."

The earliest reference in the literature to a part-purchase, part-pooling is found in this article. First, the author takes the position that the accounting treatment for mergers and purchases should be mutually exclusive. He then relents this position by indicating that "in some cases, however, a combination may involve both the aspects of a purchase and a merger" [p. 106].

Arguing that the net balances of earned surplus should be combined in a pooling of interests, Wilcox suggested that "it seems unnecessary for any company to become a party to a merger with the handicap of an operating deficit" [pp. 105-6]. In a merger where this condition might prevail, he suggested that the party or parties with an operating deficit should go through a quasi-reorganization before the combination is effected [pp. 105-6].
September 1950

Accounting Research Bulletin No. 40 formalized pooling of interests accounting. For the first time, a committee of the American Institute of Accountants used the terms "pooling of interests" and "purchase" to describe two types of business combinations. The bulletin included a discussion of the criteria for a pooling of interests and the accounting treatment to be used [Committee on Accounting Procedure, 1950].

Criteria

Four criteria were presented in ARB No. 40 to assist the professional accountant in evaluating whether a business combination was a pooling of interests: (1) continuity of ownership interest, (2) relative size of the constituents, (3) continuity of management or the power to control management, and (4) nature of business activity (similar or complementary activity would support a presumption of pooling) [pp. 1-2].

A pooling of interests was characterized as a business combination in which "all or substantially all of the equity interests in predecessor corporations continue as such, in a surviving corporation which may be one of the predecessor corporations, or in a new one created for the purpose" [p. 1]. The relative size criterion was not specifically defined, but the language in the bulletin indicated that pooling of interests would probably not be applicable if one of the constituents was minor in size in relation to the others. With regard to application of the criteria, ARB No. 40 stipulated that "no one of these factors would necessarily be determinative, but the presence or absence would be cumulative in effect" [pp. 1-2].

Accounting Treatment

In addition to establishing the criteria for a pooling of interests, ARB No. 40 was specific about the accounting procedure to be used. For the first time, a committee of the AIA sanctioned the carrying forward of the retained earnings of an acquired firm into the records of the acquiring firm. If the combination was to be treated as a pooling of interests, it was necessary to use the following accounting procedures:

When a combination is deemed to be a pooling of interests, the necessity for a new basis of accountability does not arise. The book values of the assets of the constituent
companies, when stated in conformity with generally accepted accounting principles and appropriately adjusted when deemed necessary to place them on a uniform basis, should be carried forward; and the retained incomes of the constituent companies may be carried forward . . . .

Due to the variety of conditions under which a pooling of interests may be carried out, it is not practicable to deal with the accounting presentation except in general terms. A number of problems will arise. For example, the aggregate of stated capital of the surviving corporation in a pooling of interests may be either more than, or less than, the total of the stated capital of the predecessor corporations. In the former event the excess should be deducted first from the aggregate of any other contributed capital (capital surplus), and next from the aggregate of any retained income (earned surplus) of the predecessors; while in the latter event the difference should appear in the balance-sheet of the surviving corporation as other contributed capital (capital surplus) . . . [p. 2].

Prior to the issuance of ARB No. 40, there had been a few business combinations that were recorded as poolings. Subsequent to 1950, the modern merger movement accelerated and pooling of interests accounting was used more frequently.

1950-1960

In the ten-year period following the publication of ARB No. 40, the American Institute of Accountants (name changed to American Institute of Certified Public Accountants [AICPA] in 1957) issued two additional accounting research bulletins related to accounting for mergers. The dates of these official pronouncements were June 1953 and January 1957.

June 1953

Accounting Research Bulletin No. 43 was an attempt to codify and to clarify the portions of the first forty-two bulletins that had continuing value. Two chapters of this publication were related to the evolution of the theory of pooling: (1) Chapter 5, "Intangible Assets," and (2) Chapter 7, Section C, "Business Combinations" [Committee on Accounting Procedure, 1953].

ARB No. 43, Chapter 5

As a restatement of ARB No. 24, the only significant change in
this chapter was the elimination of one alternative treatment of type (b) intangibles. The superseded bulletin had discouraged the practice of writing off type (b) intangibles directly to earned or capital surplus, but it had not prohibited the procedure.

Under ARB No. 43, the alternatives were either to carry the type (b) intangible on the books for an indefinite period or to amortize it against income. When such an intangible became worthless, a direct write-off could be made to income or if the inclusion of substantial charges to income would tend to be misleading, a charge directly to earned surplus was acceptable. Under no circumstances was purchased goodwill to be immediately charged to capital surplus [pars. 6-8]. Since the SEC had stated in ASR No. 50 (see previous discussion) that goodwill could not be charged to capital surplus, the Committee on Accounting Procedure apparently was bending to the regulator’s will on this issue.

**ARB No. 43, Chapter 7, Section C**

With one exception, this chapter was a rewording of ARB No. 40. The new concept was that "when a combination results in carrying forward the earned surpluses of the constituent companies, statements of operations issued by the continuing business for the period in which the combination occurs and for any preceding period should show the results of operations of the combined interests" [par. 7].

This procedure is consistent with the basic concept that a pooling of interests is simply a combination and continuation of two or more firms as a single entity. It is significant because it is the first time that the manner of presenting earnings under the pooling concept had been set forth.

**January 1957**

Chapter 7, Section C of ARB No. 43 was supplanted by ARB No. 48 [Committee on Accounting Procedure, 1957]. To make pooling of interests accounting more compatible with the growing trend toward corporate diversification, the requirement of similar or complementary businesses was deleted. The tests of continuity of ownership and continuity of management or the power to control management were retained.

Prior to 1957, the relative size criterion had never been specifically defined, but there was apparently an understanding that only firms of relatively equal size could be pooled. This position had been under attack from the business community and little
support had been received by the profession from the SEC in enforcing the rule. ARB No. 48 attempted to illuminate the relative size question by stating that "relative size of the constituents may not necessarily be determinative, especially where the smaller corporation contributes desired management personnel; however, where one of the constituent corporations is clearly dominant (for example, where the stockholders of one of the constituent corporations obtain 90% to 95% or more of the voting interest in the combined enterprise), there is a presumption that the transaction is a purchase rather than a pooling of interests" [par. 6]. Barr [May 17, 1979] said that "Paragraph 6 of ARB No. 48 by specifying a 90% to 95% voting interest completed destruction of the size test. About this time, the New York Stock Exchange left enforcement to the accounting profession and obtained letters from them stating their satisfaction with the rules."

In addition, ARB No. 48 initiated the concepts of continuity of assets and continued subsidiary existence after a pooling of interests. Statements on these two subjects were as follows:

... abandonment or sale of a large part of the business of one or more of the constituents militates against considering the combination as a pooling of interests [par. 6].

... the continuance in existence of one or more of the constituent corporations in a subsidiary relationship to another of the constituents or to a new corporation does not prevent the combination from being a pooling of interests... [par. 4].

The practical effect of this bulletin was that essentially any business combination could be accounted for as a pooling, regardless of the types of businesses or the relative sizes of the combining firms. Speaking at the annual meeting of the American Accounting Association (AAA) in 1958, Barr [1959, p. 179] confirmed that relative size was no longer a significant factor.

As a general proposition we have objected to pooling of interests when the equity of the smaller company would be less than five percent. However, in some situations pooling of interests accounting has been accepted when the acquiring company's interests has exceeded 95 percent....

1960-1968

Pooling of interests accounting was never approved as an optional method in either ARB No. 48 or any of the previous pro-
nouncements of the American Institute of Accountants, but it was clearly treated as such in practice. If a business combination met the requirements for a pooling, it could be treated either as a pooling or as a purchase. As the attributes prerequisite to a pooling diminished, either by proclamation or in practice, the effect was that by 1960 almost any merger could be accounted for as a pooling.

The appropriateness of using pooling of interests accounting was the leading accounting controversy of the 1960s because it was widely believed that pooling accounting might artificially stimulate merger activity, encourage corporations to issue excessive debt or preferred stock securities, or mislead investors [Seligman, 1982, p. 420]. By the early 1960s, the ability to increase earnings per share by use of pooling accounting was being recognized publicly [Chatov, 1975, p. 213]. This phenomenon could be achieved by (1) the sale of assets acquired (in a pooling, assets acquired would be recorded at book value with the subsequent sale at market value yielding an instant gain); (2) the pooling of earnings while reducing the number of shares of common stock outstanding (by paying for part of the acquisition with cash, debt securities or preferred stock); and (3) lower reported depreciation and amortization due to assets being recorded at book value (assuming book value was lower than market value).

As the post-World War II merger movement picked up steam, the controversy over accounting for business combinations increased. In 1959, the Committee on Accounting Procedure was superseded by the Accounting Principles Board (APB). With a renewed emphasis on research to find solutions to accounting issues, the APB funded two research studies related to merger accounting. In the 1960s, the topic was mentioned, in conjunction with other issues, in two opinions issued by the APB and the APB formed a committee to study accounting for business combinations. Also, a committee of the AAA recommended that pooling of interests accounting be discontinued. During this time period, six dates are significant: (1) July 1963, (2) October 1965, (3) July 1966, (4) December 1966, (5) January 1968, and (6) October 1968.

**July, 1963**

*Accounting Research Study (ARS) No. 5, “A Critical Study of Accounting for Business Combinations,”* was published by the AICPA [Wyatt, 1963]. Wyatt said, “In the study of business combinations we are primarily concerned with the accounting concepts
to be used as guides in recording the effects of financial transactions and with the nature of informative disclosures in the financial statements" [p. 11].

After a study of the literature and a review of over 350 business combinations consummated between 1949 and 1960, Wyatt concluded that the criteria used to differentiate a pooling of interests from a purchase were artificial guidelines and that there had been a gradual deterioration in the criteria. With regard to the size criterion, he found that "the vast majority of business combinations consummated in recent years involved constituents of disproportionate size" [p. 73]. Wyatt further determined that "at the same time the pooling concept has become predominant in accounting for business combinations consummated by transfer of capital stock" [p. 73].

Although there are nine recommendations in the research study, they can be reduced to the following four general suggestions: (1) pooling of interests accounting is a valid concept only in cases where there is a combination between two legally separate, but closely related entities; (2) the vast majority of business combinations are exchange transactions and should be accounted for as purchases; (3) goodwill should be amortized over its expected limited life, or if it does not appear to have limited life, it should be carried forward until evidence of its impairment exists; and (4) "fair-value pooling" should be used when the combining entities are about the same size and it is impossible to determine which one acquires the other [pp. 105-7].

Speaking on behalf of the Project Advisory Committee for *ARS No. 5*, Maurice Moonitz, Director of Accounting Research for the AICPA, made the following statement:

The committee is of the opinion that Professor Wyatt’s study is good insofar as it relates to background material and general discussion, but some members feel that its conclusions and recommendations are not realistic and do not give adequate recognition to other points of view. The study seems to favor a discontinuance of almost all poolings of interests. The committee feels that the distinction between poolings and purchases should be continued . . . Also, the committee is not disposed to accept the fair value approach to combinations of companies of approximately equal size [Wyatt, 1963, p. xiii].

Wyatt’s conclusions were based on the concept that a business combination is essentially a particular type of business trans-
action [Wyatt, 1963, p. 69]. Moonitz wanted to know the practical consequences of defining a business combination as occurring “when two or more companies merge their assets or place them under common ownership or control by any one of a variety of methods” [Wyatt, 1963, p. xii]. Robert C. Holsen agreed to study this issue and his report “Another Look at Business Combinations” is included in ARS No. 5 [Wyatt, 1963, pp. 109-14].

Moonitz said, “I concur with his [Holsen’s] conclusions that ‘... a purchase occurs when ... one group ... gives up its ownership interest in the assets it formerly controlled,’ that ‘... a pooling occurs when equity shares are exchanged ...’ and that ‘criteria such as relative size and continuity of management ...’ are neither logical nor practical guides to a distinction between a purchase and a pooling” [Wyatt, 1963, p. xii]. Holsen also “suggested that the accounting policy with respect to the write-off of goodwill should be re-examined and consideration given to allowing a company to charge to earned surplus the amount of goodwill at the date of its acquisition” [Wyatt, 1963, p. 114]. Moonitz did not embrace Holsen’s suggested accounting for goodwill, but did agree that the issue needed to be re-examined.

October 1965

After a review of all Accounting Research Bulletins issued prior to December 31, 1965, the APB issued Opinion No. 6 [1965]. One paragraph in this Opinion related to accounting for business combinations. As a modification of ARB No. 48 the following statement was made:

The board believes that Accounting Research Bulletin No. 48 should be continued as an expression of the general philosophy for differentiating business combinations that are purchases from those that are pooling of interests but emphasizes that the criteria set forth in paragraphs 5 and 6 are illustrative guides and not necessarily literal requirements [par. 22].

At this point, continuity of ownership was the only surviving major criterion for pooling.

July 1966

Erosion of the criteria for a pooling of interests and the increasing popularity of the concept did not silence the theoretical debate, however. In fact, less than a year from the date that APB
Opinion No. 6 was issued, the American Accounting Association’s Committee to Prepare a Statement of Basic Accounting Theory, in its publication A Statement of Basic Accounting Theory [1966, p. 33], recommended that pooling of interests be disallowed.

December 1966

APB Opinion No. 10 amended paragraph 12 of ARB No. 48. The requirements for restatement of financial statements after a pooling of interests were amplified with the most significant change being that “if the pooling is consummated at or shortly after the close of the period, and before financial statements of the continuing business are issued, the financial statements should, if practicable, give effect to the pooling for the entire period being reported . . .” [par. 5].

The practical result of this requirement was to make it possible for a firm to manipulate its reported earnings. By having a merger ready to be effected, management could wait to see what its earnings were for the prior period before determining when to finalize the agreement. If earnings for the prior period were inadequate, the pooling of interests could be consummated and the combined financial results for the prior period would be reported as if the two firms had been operating as one for the entire prior period. On the other hand, if earnings for the prior period for the acquiring firm met management’s expectations, the merger could be postponed for completion in the following period. Instead of clarifying and strengthening the theory of pooling, APB Opinion No. 10 created another loophole that would embarrass the profession.

January 1968

During the decade of the 1960s, pressure had been exerted upon the accounting profession to accept the pooling of interests treatment for a business combination even though the evidence clearly indicated that the transaction was a purchase. With the apparent consent of the SEC, the concept of part-purchase, part-pooling had been accepted [Kellogg, 1965, p. 34]; the relative size criterion had become meaningless [Eiteman, 1967, p. 4]; retroactive poolings had been effected [Mosich, 1968, pp. 352-62]; various types of securities, other than common stock, had been used [Kellogg, 1965, pp. 36-7]; and pooling accounting had assumed a passive role, i.e., management could apparently elect or reject pooling if the terms of the merger met minimum criteria.
The literature of the 1960s was replete with discussions both supporting and opposing pooling [see, for example, Blough, 1960; Briloff, 1967; Jaenicke, 1962; Lauver, 1966; Mosich, 1967; and Sapienza, 1962.] Under mounting pressure, the APB formed a committee on business combinations. It would be almost three years before an opinion would be issued, but this date marked the beginning of a long, arduous effort to establish sound accounting principles applicable to business combinations.

October 1968

The subject of goodwill has had a profound influence on accounting for business combinations. When ARS No. 5 [Wyatt, 1963] was published, the APB recognized the inter-relationship of these two topics, and subsequently authorized a study of goodwill which was to be completed before a serious effort was made to establish new accounting rules for business combinations.

In general, the recommendations of ARS No. 10 [Catlett and Olson, 1968] were consistent with ARS No. 5. Having concluded that most business combinations should be accounted for as purchases and that the difference between the value of the consideration given and the fair value of the net assets acquired should be assigned to goodwill, the authors disagreed with Wyatt regarding the disposition of goodwill. Catlett and Olson took the position that goodwill resulted from a disbursement of assets or of proceeds of stock issued to effect the business combination, in anticipation of future earnings, and that it should, therefore, be accounted for as a reduction of stockholders' equity rather than as a charge to income [1968, p. xii].

ARS No. 10 was criticized by five members of its Project Advisory Committee [pp. 116-54] and by Reed K. Storey, AICPA Director of Research [pp. xi-xiii, pp. 162-6]. Storey criticized the research methodology and suggested that the conclusions were not supported by logic. Only one member of the Project Advisory Committee, Leonard Spacek, strongly supported the authors' conclusions [pp. 155-61].

1969-1970 — APB OPINION NO. 16

Although the APB subcommittee on business combinations had been appointed in January 1968, the committee deferred action toward developing an opinion until ARS No. 10 was released late in 1968. The combined recommendations of ARS No. 5 and ARS No. 10 were used as reference points for the initial explora-
tion of the subject of accounting for mergers. Thus, most of the activity associated with the development of APB Opinion No. 16 took place in 1969 and 1970.

The crisis with which the accounting profession would wrestle over this two-year period was a product of two phenomena. In testimony before the Senate Commerce Committee, Hamer H. Budge, Chairman of the SEC, pointed out that total mergers in 1968 were twelve times the 1950 level, three times the 1960 level, and one and one-half times the level of 1967 [United States Senate, 1969, p. 29]. Commenting on the extremely complex capital structures which are often created in a merger, Budge said that "we have felt that improvements are needed in accounting practices as applied to conglomerates in order to provide more meaningful information for investors and the securities markets" [United States Senate, 1969, p. 33].

Not only was the rate of merger activity increasing, the use of pooling of interests accounting for business combinations was also increasing. Wakefield [1970, p. 33] reported that of 391 Listing Applications to the New York Stock Exchange that related to the issuance of stock for merger or acquisition purposes, 82.5 percent were accounted for as poolings of interests. Analysis of Listing Applications to the New York Stock Exchange for the twelve-month period beginning with November 1, 1968, and ending with October 31, 1969, confirms Wakefield's figures. Of a total of 2,200 Listing Applications that were filed during the above period, 1,087 involved proposed business combinations. Pooling of interests accounting was proposed and approved for 82.98 percent of the applicants [Rayburn, 1975, p. 9].

Buttressed by relaxation of the criteria for pooling in APB Opinion No. 10 and apparently supported by the regulatory bodies involved, accounting practitioners had, with few exceptions, reached the point where they were willing to approve any combination as a pooling, if management of the acquiring firm could get approval from the SEC. One of the vociferous critics of pooling, Briloff [1967, p. 489], had earlier characterized the situation.

While the Board (APB) is considering the entire subject of business combinations (while explicitly continuing its dispensation for the pooling method) the process of shareholder delusion through share dilution continues unabated. It can, in my opinion, be fairly inferred that this delusion-dilution process goes on with the specific approval, and probably also the guidance, of the independent auditors for the acquiring entity, and with the direct
knowledge and consent of the Securities and Exchange Commission, as well as the committees on stock listing for the several exchanges including The New York Stock Exchange.

In this review of the development of APB Opinion No. 16, the major events are listed chronologically with some deviations deemed necessary for clarity. In an effort to capture the mood of the times and the pressure under which accounting theory is determined, the activities related to APB Opinion No. 16 are disclosed in more detail than previous and subsequent developments. Thus, numerous dates are involved and are revealed. To follow the established procedure of developing each date as a sub-topic, however, would tend to clutter rather than create order. Therefore, the structure of this section is modified.

Early in 1969, the SEC began to express its concern over the "gamesmanship of corporate acquisitions and earnings per share" [Barr, March 21, 1969]. Barr, then Chief Accountant of the SEC, made some suggestions as to what might be acceptable to the SEC on pooling of interests accounting.

1. Only an exchange of unissued common stock or convertible preferred stock, which meets the definition of a common stock equivalent in APB Opinion No. 15, for the common shares or net assets of the company to be acquired should qualify as a pooling. Partial poolings should be discontinued.

2. The combination should be a tax-free reorganization.

3. The relative size test must be reinstated and a test of two to one was suggested.

4. The combination should be of going concerns operating in corporate form.

In addition to favoring the continuation of the concept of pooling, the SEC stated that "amortization of purchased goodwill should be mandatory" and suggested a maximum period of thirty to thirty-three years. From this time forward, the major controversy would be centered on pooling or no pooling, the size test, and mandatory amortization of goodwill.

In June 1969, the APB invited representatives of cooperating organizations to a symposium on business combinations which was held in New York [Lytle, June 3, 1969]. A second symposium was held in October 1969. From these early discussions, it was evident that opinion was divided. In favor of the pooling of interests concept were the American Bar Association, the Financial
Analysts Federation, the Financial Executives Institute (FEI), Robert Morris Associates, and the SEC. Even among this group, however, there was an apparent consensus that pooling should be restricted to business combinations meeting specific criteria.

Although there was mixed reaction from outside organizations as well as from within the APB, early sentiment on the Board was to discontinue pooling of interests accounting. Commenting on a draft opinion that called for the discontinuance of pooling and the mandatory amortization of purchased goodwill, Barr [October 8, 1969] urged retention of the pooling concept. Two Big-Eight accounting firms made known their opposition to this draft and the Corporate Reporting Committee of FEI initiated a vigorous campaign against elimination of pooling of interests accounting [Zeff, 1972, p. 214]. Indication of an early shift in the APB's position appeared in an AICPA press memorandum [October 28, 1969].

At a meeting last weekend, the Accounting Principles Board affirmed the position that acquisitions should be accounted for as purchases. It is exploring the proposition that in transactions involving common stock only, goodwill would not be recognized because of the difficulty of determining a reliable total cost based on market price of the common stock issued.

In December 1969, two contrasting positions were made public. On the eighth of the month, the AICPA released a press memorandum in which the APB took a tentative position favoring purchase and pooling of interests accounting, but not as alternatives. The pooling method would be retained only for common stock transactions that met certain criteria, one of which would be that neither party to the business combination could be more than three times as large as the other. Prior to the APB's tentative decision, the Federal Trade Commission, in hearings before the Subcommittee on Antitrust and Monopoly of the U. S. Senate Committee on the Judiciary, recommended that the SEC require that pooling of interests be eliminated "as the normal mode of accounting for acquisitions involving the exchange of stock" [Federal Trade Commission, 1969, p. 23].

Exposure Draft

Operating within this environment, the APB [February 23, 1970], after eight discussion drafts, released an Exposure Draft of the proposed opinion on accounting for business combinations
and intangible assets. Over 40,000 copies of the Exposure Draft were distributed for comment to corporate executives, government and stock exchange officials, security analysts, and members of accounting faculties and public accounting firms [AICPA, March 2, 1970].

In the Exposure Draft, the APB took the position that the purchase method and the pooling of interests method of accounting for business combinations were acceptable, but not as alternatives. If a merger met specific criteria, it would have to be accounted for as a pooling of interests. Failure to meet any one of the criteria would dictate the use of purchase accounting [par. 7].

On the related issue of purchased goodwill, the APB stated that the cost should be amortized over the estimated useful life of the asset with the period of amortization not to exceed forty years [par. 106].

General Criticism

The general criticism of the proposed opinion was that the APB was trying to restrict mergers rather than establish sound accounting principles for business combinations. An example of this reaction was a statement by Jules Backman [1970, p. 46], an economist, that “we should not attempt to limit acquisitions by big companies through changes in accounting methods.” Herbert C. Knortz [1970, p. 30], senior vice-president and controller of International Telephone and Telegraph Corporation (ITT), commented as follows:

A statement of principle acknowledging the basic validity of both the poolings and the purchasing concepts, as the draft does, would have been well advised to avoid paying only lip service to one of these techniques. This admonition is of significant importance when one realizes that the accounting disadvantage generated by the purchasing treatment is so massive it makes most mergers economically untenable.

Many investment bankers and corporate financial officials joined the chorus to predict that the proposed rules would sharply curtail the merger movement [Wall Street Journal, February 27, 1970, p. 1].

Support was also evident, however. On two occasions, Hamer H. Budge, Chairman of the SEC, endorsed the proposal before Congressional Committees [Wall Street Journal, June 24, 1970, p. 7]. In a speech before the National Association of Accountants,
SEC Commissioner James Needham [1970] said that "we encouraged the APB to include in this proposed opinion the very restrictive criteria for the use of pooling-of-interests accounting and the requirement for mandatory amortization of goodwill arising in purchase transactions." Both the New York Stock Exchange and the American Stock Exchange endorsed the draft [Wall Street Journal, June 24, 1970, p. 7].

Particular criticism was leveled at two provisions of the draft: (1) the size test and (2) mandatory amortization of goodwill.

**Size Test**

The Exposure Draft would have allowed pooling of interests only in cases where the acquiring company was no greater than three times as large as the acquired firm. Relative size was to be determined at the date the merger was consummated by computing the ratio of the number of shares of voting common stock issued to the acquired firm’s stockholders to the total outstanding shares. The following quotations are illustrative of the attacks lodged against this requirement:

> It is difficult to understand conceptually why pooling is appropriate for an acquisition more than one-third the size of the acquiring company but not appropriate for a company which is relatively smaller [Backman, 1970, p. 42].

FEI (Financial Executives Institute) considers the size criterion contemplated in this exposure draft to be discriminatory and conceptually indefensible. FEI had, in previous discussions with the APB, expressed a willingness to compromise on principle and accept a 10% (or 9 to 1 ratio) . . . However, in the light of more deliberate and more complete discussion of this issue, which suggests that such a compromise could virtually eliminate poolings of interests, FEI's latest position reaffirms our belief that a size criterion is neither valid nor practical [Hangen, 1970].

The proposed opinion contains many controversial issues, but none so patently improper as the suggested "size test." . . . Research by the Financial Executives Institute has indicated that less than five percent of the mergers in its sampling would have qualified for pooling under the proposed tests. An examination of 63 indicates that only one would have qualified [Knortz, 1970, p. 30].
In an effort to still speculation over the effect of the proposed size test, two members of the APB conducted independent research on the subject. One limited survey of 293 mergers revealed that “only 6% of the poolings reviewed involved combinations meeting the proposed size criterion” [Watt, 1970]. The other study of 1,452 cases of business combinations involving the offering of stock during 1969 indicated that only five percent would qualify for pooling under the three-to-one size test [Catlett, 1970].

**Mandatory Amortization of Purchased Goodwill**

The mandatory amortization of purchased goodwill over a period not to exceed forty years has the effect of reducing reported earnings. Opposition to this proposed requirement ranged from the theoretical argument that goodwill should not be recognized as an asset [Arthur Andersen & Co., 1970] to the more practical argument that the rule would reduce the incentive for mergers by cutting the post-merger earnings reported by the combined entity.

In a research study that was financed by the Financial Executives Research Foundation, with the expressed purpose of influencing the deliberations of the APB, Burton [1970, p. 82] reported the results of his survey as follows:

It was also demonstrated that the amortization of goodwill acquired in 1967 mergers over a 40 year period would only slightly reduce reported earnings in the years 1968 and 1969. At the same time, the impact of 40 year goodwill amortization on the incremental earnings produced by business combinations in the same companies would have been much more significant, averaging approximately 50% of the earnings acquired in the first year following the combination with considerable variation about the mean.

**Overwhelming Opposition**

The APB expected strong opposition to the proposed opinion, but whether the degree of resistance that materialized was expected is questionable. Zeff reports, “Early in the exposure period, the chairman of the FEI Corporate Reporting Committee again sent a letter to FEI members urging them to transmit their views to the APB as individuals and through their professional and trade associations” [1972, p. 214]. Ernst & Ernst and Arthur Andersen & Co. publicly opposed the draft and at least three other major pub-
lic accounting firms quietly lobbied against it [Wall Street Journal, June 24, 1970, p. 7]. Also, a coalition of business leaders, the Organization for Consistent Accounting Principles, waged a letter writing campaign against the proposal [Seligman, 1982, p. 423].

By June 1970, in addition to comments in the literature and in the press, the APB had received 860 letters of comment. Eighty-nine percent of the respondents expressed disagreement with the proposed opinion. Of this group, sixty percent were opposed to the restrictions on the use of pooling of interests accounting, and ten percent were against mandatory amortization of purchased goodwill. The only significant support for the draft came from accounting educators and the stock exchanges [Lytle, June 17, 1970].

Size Test is Relaxed and Agreement is Reached

At a meeting in June, the APB voted 12 to 6 to change the size test to nine-to-one and to require amortization of goodwill over a period not to exceed forty years. This vote was intended as final and a meeting was scheduled for one month later to approve the final wording of the opinion [Zeff, 1972, p. 216].

APB Opinion No. 16 and No. 17

At the meeting of the APB in July, the two-thirds majority could not be sustained and the Board was in a difficult position. Failure to reach a consensus would surely set the stage for the SEC to issue its own rule. Leonard Savoie, Executive Vice President of the AICPA, had warned "if the Board doesn't correct abuses in merger accounting, the SEC will do the job swiftly and sharply" [Wall Street Journal, June 24, 1970, p. 7].

Unable to get a two-thirds vote on the proposed opinion (after several attempts), the APB divided the contents of the Exposure Draft into two opinions (one on business combinations and one on intangible assets) and agreed to eliminate the size test [AICPA Press Memorandum, July 31, 1970]. A two-thirds majority on separate opinions was possible because members of the APB held different views about APB Opinion No. 16 and No. 17. Milton M. Broeker, J. S. Seidman and Frank T. Weston voted against APB Opinion No. 16, but voted affirmatively for APB Opinion No. 17. George R. Catlett and Charles B. Hellerson dissented on APB Opinion No. 17, but supported APB Opinion No. 16. APB members Leo E. Burger, Sidney Davidson and Charles T. Horngren dissented on both opinions. APB Opinion No. 16, "Business Combinations," passed by a vote of 12 to 6 and APB Opinion No. 17, "Intan-
gible Assets," was approved 13 to 5. The effective date of both opinions was November 1, 1970.

**APB Opinion No. 17**

Although this paper is primarily concerned with pooling of interests accounting, *APB Opinion No. 17* is related. The significant aspect of this opinion, as it relates to accounting for business combinations, is the treatment of purchased goodwill. Buoyed by the support of the SEC, the APB did not budge from the position that purchased goodwill should be amortized against income over a period not to exceed forty years [par. 29]. Even if one agrees that this approach is theoretically sound in a purchase transaction, one must also acknowledge that the practical effect might be increased pressure to use pooling of interests.

**APB Opinion No. 16**

Even after the proposed opinion was divided into two parts, *APB Opinion No. 16* on business combinations received only the bare two-thirds vote required for adoption. As stated above, the size test requirement was eliminated. Thus, the original concept of comparable size, which had become meaningless by the early 1950s, was not to be resurrected. The pooling concept, although apparently restricted, had survived.

In a move to counter the criticism that corporations could account for business combinations by the accounting method of their choice—pooling of interests; purchase; part-purchase, part-pooling—and to establish sound accounting principles that would eliminate other abuses that had been associated with accounting for mergers, the APB issued *APB Opinion No. 16*. Effective with merger negotiations initiated after October 31, 1970, the opinion approved both the purchase method and the pooling of interests method, but not as alternatives [pars. 8 and 97].

Under the new rules, some abuses were directly eliminated; minimum criteria were established that must be adhered to if a merger is to be treated as a pooling; and the accounting procedure for a pooling of interests was specified.

**Abuses eliminated.** — *APB Opinion No. 16* attacked the past practice of part-purchase, part-pooling in a very direct manner. The Board said that "a single method should be applied to an entire combination; the practice now known as part-purchase, part-pooling is not acceptable" [par. 43]. There was one exception to this position, however. A "grandfather" clause applied if a mi-
nority interest or exactly fifty percent was held in the common stock of another company on October 31, 1970, and after that date, the two companies enter into a plan of combination. Otherwise, such a situation could result in a part-purchase, part-pooling. Initially, this clause was to expire October 31, 1975 [par. 99]. However, in October 1975, the Financial Accounting Standards Board (FASB) issued FASB Statement No. 10, "Extension of 'Grandfather' Provision for Business Combinations," in which the five-year limitation was eliminated. At that time, the FASB had a project on its agenda titled “Accounting for Business Combinations and Purchased Intangibles" which involved a reconsideration of APB Opinion No. 16. Rather than leave open the possibility that accounting practices that would change with expiration of the grandfather provisions of APB Opinion No. 16 might change again after reconsideration of the opinion, the Board eliminated the five-year limitation “so as to maintain the status quo during the Board’s reconsideration of that Opinion” [FASB Statement No. 10, par. 3].

The practice of including the profits of an acquired company in the annual report to the stockholders even though the pooling took place after the end of the period reported on also was eliminated [par. 61]. This maneuver, made possible by a loose interpretation of the reporting requirements of APB Opinion No. 10, led critics to refer to it as a method of creating “instant earnings.” Corporate managements no longer have the alternative of using this ploy to enhance earnings reports.

The continuity of ownership rule was prevalent as a requirement for pooling in the pre-APB Opinion No. 16 era. Although never stated as a definite policy, the unwritten rule of the SEC was that control-selling shareholders (shareholders controlling the acquired company) could sell only twenty-five percent of the securities received within one year following the distribution of stock to them, twenty-five percent more the second year, and the balance after the two-year period had expired [Gunther, 1973, p. 459]. APB Opinion No. 16 contained no mandatory holding period for common stock received in a pooling. Therefore, immediate bail-outs of stock received were not damaging to a pooling. After some astute managements abused this privilege to the point of arranging totally “risk-free” poolings, the SEC issued Accounting Series Release No. 130 and No. 135 which required that “no affiliate of either company in the business combination sells or in any other way reduces his risk relative to any common shares received in the business combination until such time as financial results covering
at least 30 days of post-merger combined operations have been published” [Gunther, 1973, p. 460]. This requirement is not as stringent as the old SEC rule, but it does emphasize the concept that a pooling implies continuity of ownership.

**Minimum criteria.** — Having accepted the validity of the pooling of interests concept, the APB stipulated that twelve criteria must be met if a business combination is to be treated as a pooling. Equally significant, perhaps, was the concept that if these criteria were satisfied, pooling must be used [par. 45].

**Accounting procedure.** — The method of recording a business combination as a pooling of interests is supported by the argument that no new basis of accountability arises. The accounting procedures set forth in *APB Opinion No. 16* were consistent with this concept.

The combined corporation records the historical-cost based amounts of the assets and liabilities of the separate companies because the existing basis of accounting continues [par. 117].

The stockholders' equities of the separate companies are also combined... The combined corporation records as capital the capital stock and capital in excess of par or stated value of outstanding stock of the separate companies.

Similarly, retained earnings or deficits of the separate companies are combined and recognized as retained earnings of the combined corporation. The amount of outstanding shares of stock of the combined corporation at par or stated value may exceed the total amount of capital stock of the separate combining companies; the excess should be deducted first from other contributed capital and then from the combined retained earnings ...[Par. 118].

**1971-1991**

*APB Opinion No. 16* attempted to identify those business combinations to be accounted for as poolings of interests by delineating the twelve pooling criteria and making the pooling versus purchase decision a somewhat mechanical one through strict consideration of those criteria. As companies began to apply the opinion in practice, application problems became apparent. In addressing problems of implementation, the AICPA issued thirty-nine interpretations of *APB Opinion No. 16* between December 1970 and
March 1973, dealing primarily with the specifics and mechanics of applying the pooling criteria.

The SEC also took action during 1972 and 1973 to provide implementation guidelines for APB Opinion No. 16. In addition to Accounting Series Release No. 130 and No. 135, the SEC issued Accounting Series Release No. 146, dealing with the effect of treasury stock transactions on accounting for business combinations. Many of the large accounting firms developed manuals providing guidance in applying APB Opinion No. 16. (See, for example, Interpretations of APB Opinion No. 16 and 17, Arthur Andersen & Co., Seventh Edition, 1988.) In discussing the need for extensive interpretive materials concerning the opinion, Dieter [1989] of Arthur Andersen & Co. states that “this must say something about the ambiguity of the concept of pooling-of-interests to accountants. Soundly conceived concepts are more easily understood and interpreted shortly after adoption” [p. 46].

Dieter also discusses the position generally taken by the SEC regarding poolings. He notes that the SEC has attempted to support the standard-setting authority of the private sector in recent years and its own rules have addressed relatively narrow issues where abuses were perceived, with one exception—interpreting APB Opinion No. 16.

... the Chief Accountant's Office does not often issue SABs [Staff Accounting Bulletins] or other interpretative guidance on pooling-of-interests issues. Rather, pooling-of-interests accounting questions for registrants are handled on a case-by-case approach, and word of mouth is supposed to make these views available to the profession as a whole [Dieter, 1989, p. 47].

In 1973, the FASB replaced the APB as the primary accounting standard-setting body in the United States. Soon after its formation, the FASB issued an open letter soliciting the public's views concerning the need for interpretation, amendment, or replacement of existing pronouncements of the Committee on Accounting Procedure or the Accounting Principles Board. The FASB Status Report dated April 30, 1974, indicated that a high proportion of the respondents to the open letter questioned APB Opinion No. 16 and No. 17. As a result, the FASB announced the appointment of a task force for a project on business combinations and purchased intangibles, with its first step to be reconsideration of the criteria for pooling of interests accounting. The primary objective of the task force was to provide input to the FASB.
in drafting a discussion memorandum identifying alternative solutions as a basis for a public hearing.

The June 24, 1974, Status Report indicated a change in the FASB’s position:

The Standards Board has dropped a previously announced interim step in its project on accounting for business combinations and intangible assets and has decided, instead, to proceed directly with total reconsideration of two Accounting Principles Board Opinions on the subject.

The FASB felt that the project should extend beyond the mere consideration of the pooling criteria to encompass the underlying theory of business combinations.

On August 19, 1976, the FASB Discussion Memorandum, “Accounting for Business Combinations and Purchased Intangibles,” was issued. It provided the basis for a public hearing scheduled to be held in New York on May 17, 1977.

In December 1976, the FASB announced that it would hold a public hearing in June 1977 on the conceptual framework for financial accounting and reporting. As a result, the public hearing on business combinations and purchased intangibles would be rescheduled [FASB Status Report, December 5, 1976]. This hearing was ultimately rescheduled for the second half of 1978, with an exposure draft and final Statement expected in 1979 [FASB Status Report, October 13, 1977].

The April 26, 1978, Status Report indicated that “the Board has received recommendations to postpone a public hearing and not to issue a Statement on that topic [Business Combinations and Purchased Intangibles] until it has substantially completed certain phases of the conceptual framework project. Additional information is being obtained as to the priority to be assigned to the business combinations project” [pp. 1-2]. The Board announced in October of 1978 that the planned timing for the business combinations project had been moved back, awaiting the issuance of a Statement of Financial Accounting Concepts on the Elements of Financial Statements of Business Enterprises. The public hearing on business combinations was not expected until the fourth quarter of 1979, with a final Statement not expected until 1981 [FASB Status Report, October 25, 1978].

As work on various of its projects progressed, the FASB concluded that “a Statement on elements and an updating supplement to the August 1976 [business combinations] discussion
memorandum should precede a public hearing on this project. Accordingly, a public hearing is not expected before 1980" [FASB Status Report, July, 6, 1979]. In October of 1979, the Board announced that "the project is inactive pending further progress on the conceptual framework, especially elements of financial statements" [FASB Status Report, October 17, 1979]. After more than a year of inactivity, the FASB announced that the business combinations project had been removed from its agenda "because of low priority in relation to other existing and potential projects" [FASB Status Report, April 10, 1981].

Considering all of the concern with the inadequacies of APB Opinion No. 16 expressed by the public in response to the FASB's 1973 open letter, it seems surprising that the FASB's ultimate conclusion was that the business combinations project was one of "low priority." However, from the time the Discussion Memorandum was issued in 1976 until 1981, only sixteen comment letters were received by the FASB [Letters of Comment on the Discussion Memorandum of the FASB]. An analysis of these comment letters is summarized in Exhibit 1.

**Exhibit 1**

**Discussion Memorandum Comments**

<table>
<thead>
<tr>
<th>General Position</th>
<th>Number of Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred to defer consideration of the issue until the Conceptual Framework</td>
<td>2</td>
</tr>
<tr>
<td>Project was completed</td>
<td></td>
</tr>
<tr>
<td>Did not specifically refer to poolings</td>
<td>4</td>
</tr>
<tr>
<td>Supported APB Opinion No. 16 (some with slight modifications)</td>
<td>6</td>
</tr>
<tr>
<td>Recommended elimination of poolings</td>
<td>2</td>
</tr>
<tr>
<td>Considered pooling preferable to purchase regardless of method of payment</td>
<td>1</td>
</tr>
<tr>
<td>An outline only</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Most, if not all, of the positions taken in the comment letters were unsupported with logic or theory, and little effort was made to defend arguments. Clearly, the FASB received no mandate for major change in accounting for business combinations from these responses.

Hermanson and Hughes [1980] reported on a study of the satisfaction of accounting practitioners, accounting educators, and
financial executives with *APB Opinion No. 16* and *No. 17*. Their survey of 600 individuals suggested that "the major accounting groups seem to have learned to live with—and, in some cases, appreciate—Opinions 16 and 17." Their message for the FASB was: "Take your time" [p. 15]. They discovered that educators and financial executives tended to differ in their opinions while accounting practitioners sided in some cases with educators and in other cases with the executives. Table 1 presents selected results of their findings concerning satisfaction with *APB Opinion No. 16*. Table 2 presents their findings concerning the appropriate treatment of goodwill [*APB Opinion No. 17*].

The FASB apparently was in agreement with Hermanson and Hughes since it has largely ignored the issue of business combinations in general (and poolings of interests specifically) following the abandonment of the business combinations project in 1981. The FASB issued *Technical Bulletin No. 85-5* in June of 1985 entitled "Issues Relating to Business Combinations." Regarding poolings, the technical bulletin addressed the issues of downstream mergers, identical common shares, and the combination of mutual and cooperative enterprises, all with reference to the application of *APB Opinion No. 16*. The SEC issued *Staff Accounting Bulletin No. 65* in November of 1986 in which the SEC's staff discussed its views on certain matters involved in the application of *Accounting Series Release No. 130 and No. 135* regarding risk sharing in business combinations accounted for as poolings of interests. For the most part, however, the authoritative bodies have allowed the accounting for poolings of interests as provided for in *APB Opinion No. 16* to stand.

In fact, *APB Opinion No. 16* has only had paragraphs amended or superseded seven times, and none of those changed the criteria for accounting for a business combination as a pooling of interests. Additionally, the FASB has issued only four interpretations and two technical bulletins regarding *APB Opinion No. 16*. One of the interpretations, *FASB Interpretation No. 21* [April 1978], and one of the technical bulletins, *FASB Technical Bulletin No. 85-5* (see above), addressed pooling of interests. *FASB Interpretation No. 21* clarified application of *FASB Statement No. 13*, "Accounting for Leases," in a pooling as well as in a purchase combination.

The continuing acceptability of pooling of interests accounting has not silenced all critics, however. Dieter [1989], in considering the need for changes in accounting for business combinations, attacks the pooling concept.
### Table 1

**Degree of Satisfaction with APB Opinion No. 16**

<table>
<thead>
<tr>
<th>Thc pooling criteria</th>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Neutral</th>
<th>Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practitioners</td>
<td>5.5% 52.7%</td>
<td>18.2%</td>
<td>16.4%</td>
<td>7.2%</td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>Educators</td>
<td>1.8% 28.1%</td>
<td>17.5%</td>
<td>40.4%</td>
<td>12.2%</td>
<td></td>
<td>114</td>
</tr>
<tr>
<td>Financial Executives</td>
<td>1.1% 52.5%</td>
<td>15.6%</td>
<td>20.0%</td>
<td>11.1%</td>
<td></td>
<td>90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The manner of recording a pooling</th>
<th>Practitioners</th>
<th>Educators</th>
<th>Financial Executives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.3% 56.4%</td>
<td>21.8%</td>
<td>11.0%</td>
</tr>
<tr>
<td></td>
<td>9.9% 38.2%</td>
<td>23.6%</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thc manner of recording a purchase</th>
<th>Practitioners</th>
<th>Educators</th>
<th>Financial Executives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12.7% 60.0%</td>
<td>14.5%</td>
<td>11.0%</td>
</tr>
<tr>
<td></td>
<td>2.2% 64.8%</td>
<td>14.3%</td>
<td>5.5%</td>
</tr>
</tbody>
</table>


### Table 2

**Opinions Regarding Treatment of Goodwill APB Opinion No. 17**

<table>
<thead>
<tr>
<th>Goodwill should be:</th>
<th>Practitioners</th>
<th>Educators</th>
<th>Financial Executives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recorded as an asset</td>
<td>63.6%</td>
<td>66.7%</td>
<td>63.3%</td>
</tr>
<tr>
<td>Immediately written off or shown as</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a reduction of stockholders' equity</td>
<td>25.5%</td>
<td>23.7%</td>
<td>26.7%</td>
</tr>
<tr>
<td>Other</td>
<td>10.9%</td>
<td>9.6%</td>
<td>10.0%</td>
</tr>
</tbody>
</table>

| Number of responses                         | 55            | 114       | 90                   |

If goodwill is capitalized as an asset, the subsequent treatment of it should be to:

| Retain it permanently as is                | 1.8%          | 2.7%      | 6.8%                 |
| Amortize it mandatorily against current income | 72.8%        | 69.6%     | 55.8%                |
| Amortize it mandatorily directly to retained earnings | 12.7%       | 12.5%     | 22.7%                |
| Amortize it optionally against current income | 10.9%        | 2.7%      | 5.6%                 |
| Amortize it optionally directly to retained earnings | 0.0%        | 2.7%      | 1.1%                 |
| Other                                       | 1.8%          | 9.8%      | 8.0%                 |

| Number of responses                         | 55            | 112       | 88                   |

The present rules, embodied primarily in APB Opinion Nos. 16 and 17... were a convenient compromise, not rules of reason and logic... the concept of pooling-of-interests is an accountant-related concept that bears no relationship to economic reality and is at variance with the primary transaction-based approach used in most areas of accounting today. The conceptual arguments to support continuation of this form are weak. In almost all business combinations that are accounted for as poolings-of-interests, an economic event has taken place whereby one entity has acquired another. To not account for these very significant transactions at their economic value further erodes the credibility of continuing financial statements [p. 44].

Despite arguments such as these, the pooling method is still generally accepted. The criticisms have not been severe enough nor sufficient in number to move the authoritative bodies to action.

APB Opinion No. 16 celebrated its twentieth birthday in November of 1990. Except for interpretive pronouncements, the sections of the opinion related to pooling of interests have not been changed. The FASB has had a project on “Consolidations and Related Matters” on its agenda since January 1982. One part of this project is addressing when a new basis of accounting is appropriate. This part of the project is in the early stages of development with a Discussion Memorandum [FASB, September 10, 1991] recently issued. What impact, if any, these deliberations will have on accounting for a business combination as a pooling of interests cannot be predicted.

In its annual overview of the activities of the FASB, the Financial Accounting Standards Advisory Council [1990] surveyed current and former Council members, soliciting their views on the priorities and timetables of each of the FASB’s current agenda items. The respondents stated that “Business Combinations continues (as it did in the prior year) to be the first choice of Council members for a major new agenda project when the Board has the capacity to add one” [Financial Accounting Standards Advisory Council, 1990, p. 1]. Thus, there is some pressure for the FASB to revisit this issue. Until it does, APB Opinion No. 16 continues in force essentially unchanged as it relates to pooling of interests accounting for business combinations.
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INTRODUCTION

The accountancy profession is nearly one hundred and fifty years old. Formally organized in Scotland in the mid 1850s, it has expanded rapidly worldwide to become one of the leading professions in terms of the number of people it employs, the quantity and variety of services it offers and renders, the size and pervasiveness of its public firms, the extent of its provision and use of educational and research resources, the degree of influence it has in its relations with the state, and the social status and economic rewards enjoyed by its members. Yet, it still must cope with persistent and seemingly intractable problems such as the dubious meaning of reported accounting figures, inconsistencies in accounting rules, education orientated solely to training for current practice, a lack of research influence on practice, and managing the ethical behavior of practitioners.

For these reasons, and more than ever before, there is a need to explore the origins and development of the accountancy profession — that is, to discover the reasons why it came into existence, and the means by which it has prospered despite its long-standing problems. Hopefully, such historical studies will not only provide the profession's current and future members with an understanding of their roots, but will also signal clues as to possible resolutions of at least some of its problems.

With these thoughts in mind, this review essay is intended to provide some historical perspective on the modern accountancy profession by critiquing the recent study of Dr. Kedslie into the origins of the earliest professional accountancy bodies formed in
Scotland in the mid 1850s [Kedslie, 1990]. It would be arrogant to claim that these bodies were necessarily different in character, origin or purpose from other bodies formed at about the same time in England and elsewhere. Nevertheless, there is a curious fascination about the founding fathers of any enterprise. For example, consider the attention given to Pacioli regarding the introduction of double-entry bookkeeping despite knowledge of its existence prior to the date of his publication [see de Roover, 1974].

Given this natural curiosity about 'beginnings,' what is most surprising with respect to the Kedslie text is that it represents one of a very few scholarly studies of the Scottish origins of the modern accountancy profession. One of the earliest and often-quoted texts is that of Brown [1905], a leading Scottish chartered accountant at the beginning of this century, who wrote very generally of the origins of the profession in Scotland, the establishment of the first societies, the first chartered accountants, and the work and problems of these early professionals [pp. 181-231 and 314-42].

Pre-professional accounting in Scotland is covered in a detailed study by Mepham [1988] of eighteenth century accounting and accountants, the main feature of which is the considerable intellectual capacity of the men behind the accounting ideas which were part of the Scottish Enlightenment [pp. 381-3].

Post-professionalization in Scotland has also been studied by accounting historians, and in a number of ways. First, there is an anonymous general history of the early development to 1954 of the main Scottish professional body, described within a context of accounting activities and leading Scottish accountants of the period [ICAS, 1954/1984]. Second, Stewart [1977/1986] produced a historical review of Scotland’s professional beginnings in accounting in the form of a series of brief biographical sketches of the original Scottish chartered accountants to 1879. Third, Winsbury [1977] has written a history of a leading international public accountancy firm which originated in Scotland. Fourth, Lee [1984] has edited a book of papers which were delivered over a seventy-year period to Scottish accounting student societies by leading accountants, revealing the type of persistent issues which were brought to the attention of Scottish accounting practitioners and their apprentices over several decades. Fifth, Walker [1988] re-

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1It should be noted that Kedslie's book appears in summarized form in a recently published paper which was awarded the 1990 Manuscript Award of the Academy of Accounting Historians [Kedslie, 1990a].
Mills: Reviews

cently wrote an extensive empirically-based social history of recruitment to the earliest Scottish accountancy body, with specific references to the social mobility of the recruits.

Kedslie's text touches on most of the activities and issues covered in these earlier studies. It is particularly related to that of Walker [1988], in the sense that both historians have observed and interpreted the main factors which they perceive to have comprised the origins of the earliest Scottish accountancy bodies. However, lest any reader feel that there is duplication between these two recent studies, it should be stated at the outset that Kedslie's study provides a broad observation and commentary on a multiplicity of connected issues. It establishes what Carr [1987, p. 104] has described as one of the essential roles of history — "a rational and logical quilt of knowledge." In this case, knowledge concerns the origins of professional accountancy in Scotland. Walker, on the other hand, has produced a more socio-scientific study of certain specific variables which he argues determined the nature and size of the recruitment and self-recruitment to one of the founding professional bodies in Scotland. In particular, his study is of developments from the origins of professionalization, with specific emphasis on the openness of professional accountancy in Edinburgh to the phenomenon of upward social mobility.

PLEA FOR KNOWLEDGE

Kedslie's study of the early Scottish accountancy profession must be seen in the context of several recent pleas for more and better knowledge of the origins of accounting generally, and the accountancy profession particularly. The particular motivations behind these urgings are the need to understand the role of accounting and accountants within the context of significant organizational and societal change; not to study these phenomena as if they were static and neutral; and, more specifically, to observe accounting (and presumably the accountant) becoming what they were not [see Burchell et al., 1980; Willmott, 1986; and Hopwood, 1987]. Kedslie's text is compatible with these ambitions for the study of accounting history, although it is not necessarily faithful to them all and at all times. The purpose of this review is to identify the compatibilities and incompatibilities between Kedslie's thesis and prior historical prescriptions, remembering the warning of Carr [1987, p. 22] that history is not just about facts; it is also about the historian, and the problem he or she has in separating fact from interpretation, and the unique from the
general. It is also perhaps relevant to note the view of Collingwood [1974, p. 37] that the proper task of historians is to penetrate the minds of those persons they seek to study historically. Each of these points will be touched on at appropriate parts of this review, but, first, a summary of Kedslie's thesis with, where relevant, comparisons to that of Walker.

CONTENT OF KEDSLIE [1990]

Kedslie's study is of the origins and events surrounding the formation of three Scottish professional accountancy bodies in the mid 1850s (chronologically, in Edinburgh, Glasgow and Aberdeen). What is fascinating about these developments is not the formations themselves, but why they took place in Scotland at that time. Kedslie's careful research has provided some interesting answers, and she has managed to present them (both in her book and related paper) in a way that is accessible not just to the accounting historian, but also to the practitioner and the student of accounting. Indeed, her study provides a data base for further research as much as definitive conclusions on the issues concerned. In this respect, and as will be explained later in this review, arguably its main weakness is its failure to use such a data base to support or reject hypotheses which could be specified with respect to familiar models of professional behavior.

Kedslie's study begins with an examination of the accounting and accounting-related activities with which identifiable accountants were involved prior to professionalization in Scotland. She reveals evidence of these accountants as connected in a variety of ways, and to different degrees, with such businesses as canals and railways [pp. 15-28]; banking, insurance and stockbroking [pp. 28-39]; and, most particularly, bankruptcy [pp. 39-54 and 114-34]. In general, Kedslie discovered from data gathered from directories, court records, and other relevant sources, there were significant differences in pre-professional activities in the three geographical locations researched, depending on the nature and preponderance of different businesses in different regions. For example, Edinburgh was a legal and financial center, whereas Glasgow had an industrial and stockbroking focus. These inevitably led to the founding fathers of chartered accountancy in Scotland having different social backgrounds, and being involved and specializing in different accounting and related activities depending on the city in which they did business. For example, Edinburgh accountants entering the new profession were more likely to have family connec-
tions with the legal or financial communities than were their colleagues in Glasgow [p. 82]. At least within the context of Edinburgh, these findings are consistent with those of Walker [1988, p. 265].

One thing above all others is clear from Kedslie's thesis. Pre-professionalization, accountants as a social grouping were significantly involved in bankruptcy work and this was the principal factor leading to the formation of the three Scottish professional bodies [pp. 50-77 and 114-34]. Indeed, a threat of change in bankruptcy law at the time, which would have led to lawyers rather than accountants undertaking such work, was the indisputable catalyst for action to form the Edinburgh body [p. 59], and then the Glasgow and Aberdeen bodies. In the end, the legal change did not take place, but it was sufficient to create the beginnings of modern professional accounantry. Involvement in bankruptcy and related legal work continued to be a major source of business for the early Scottish chartered accountants, to the point that they appear to have established a near-monopoly of such activity during the decades following the founding of the three professional bodies — that is, until a decline at the end of the nineteenth century [p. 134]. Indeed, Walker [1988, p. 34-40] provides data in the Edinburgh context from which a similar conclusion can be drawn. The main change in the mix of business appears to have been to company auditing — for example, in relation to Scottish banks [Kedslie, 1990, p. 145] and railway companies [Kedslie, 1990, p. 166]. Walker [1988, p. 40] confirms this trend with more general corporate data.

Kedslie examines the social origins of the early Scottish professional accountants [pp. 78-113]. When compared with the work of Walker [1988], the analysis is not as statistically detailed and argumentatively complex as his interwoven themes of recruitment factors [pp. 30-193], and his self-recruitment demographic model [pp. 203-64]. Kedslie's conclusions, however, are no less clear and concise. For example, her evidence indicates that the earliest recruits to the Scottish profession tended at first to come from an upper to middle class background [pp. 79-81]. This varied, however, between Edinburgh, and Glasgow and Aberdeen. Edinburgh's earliest recruits tended to be more upper to upper-middle class than their colleagues elsewhere. Later recruits in all three regions tended to come from a more uniform middle class background [pp. 81-96]. This matches the specific Edinburgh findings of Walker [1988, pp. 83-9]. Kedslie [1990, pp. 96-104] also found the earliest recruits usually had a
sound education at fee-paying schools, with some having university education [pp. 101-4]. Walker [1988, pp. 89-95] presents similar data for Edinburgh recruitment. Finally, Kedslie [1990, pp. 110-12] also demonstrates the earliest chartered accountants in Scotland were active in public life and so-called ‘good works’ in the community.

In other words, these early accounting professionals were predominantly members of an elite grouping in their communities prior to entry to membership of their professional bodies, and later members tended to come from reasonably similar backgrounds — with some differences over time and between bodies. Coming together at this time in such an organized way is a clear signal of some form of self-protection involving economic employment and social status. Kedslie reveals the several post-professionalization actions of Scottish chartered accountants which evidence such self-protection. Interestingly, despite differences in the composition and background of members of the three bodies, this evidence reveals unanimity of attitude and purpose over the issues concerned.

The first matter centers on the expansion and then decline in the second half of the nineteenth century in the involvement of Scottish chartered accountants in legally-driven work such as bankruptcies, and a compensating expansion of their involvement in other areas in which they had previous connections (such as auditing banks, insurance companies and railways [Kedslie, 1990, pp. 114-34 and 135-71]. Kedslie clearly reveals the adaptability and success of the early chartered accountants in capturing significant areas of accounting-related activity — to the point at which they occupied a near-monopoly position (as in the audit of railways) [p. 71].

The second example of protectionism cited by Kedslie [1990, pp. 179-217] is the increasingly explicit use by the three Scottish professional bodies of methods of restricted entry. This started with entry by invitation to a selected few with an appropriate background and experience. Then to indenture, apprenticeship and informal examinations. And, finally, to a unified national examination system. Several things above all others evidence deliberate barriers to entry — the high financial cost of entry to membership and the length of training prior to entry [for example, pp. 184-8]; and the rapid stiffening of educational and examination standards designed to provide chartered accountants with a knowledge which was directly relevant to their involvement in practice [for example, pp. 188-97].
Legal conflicts with rival accountancy bodies to prevent them receiving a charter of incorporation, and thus protect the exclusive use of the label of chartered accountant, comprises Kedslie's [1990, pp. 218-9] third example of professional closure. These protectionist actions were successful, although the rival bodies survived to be later absorbed into larger bodies in England. This defending of what amounted to a professional monopoly has been well documented and discussed by Walker [1991], with the particular conclusion that its success rested on appeals to the public interest being best served by restricting the title of chartered accountants to the then existing Scottish chartered bodies [p. 279].

The final example provided by Kedslie [1990, pp. 239-61] of early Scottish chartered accountants attempting to establish professional closure concerns the issue of registration of such accountants as the only ones licensed to practice as such. This was intended to be achieved by legislation and, over several years, numerous unsuccessful attempts were made by the Scottish and other UK bodies to do just that. As Kedslie [1990, p. 260] remarks, these attempts appeared to be deliberately explicit displays of national and inter-organizational rivalry. The Scottish activities have been extensively explored by MacDonald [1985].

A THEORY OF PROFESSIONAL BEHAVIOR

The value of Kedslie's work is in its provision of a "quilt" of related topics which, when gathered together, give the reader a sense of how the Scottish bodies came into being in the mid 1850s, and then proceeded to restrict their membership and capture specific work for their members. In this respect, however, the quilt tends to lack a pattern which would help explain why these developments took place when and where they did. In other words, there is little or no specification of a general model or individual hypotheses of professional behavior with which to relate the data and derive explanatory conclusions of the type desired by writers such as Burchell et al. [1980], Willmott [1986] and Hopwood [1987]. Kedslie [1990, pp. 262-74] does attempt briefly at the end of her book to provide such a scenario — in the sense that she discusses various views of the attributes of a profession and its members. These include such well-known writers on the subject as Carr-Saunders and Wilson [1933] and Hall [1969].

Kedslie uses each of these studies to describe attributes or characteristics of professionalism such as a theoretical body of knowledge; social prestige through charters of incorporation;
training, examination and licensing; independence from the client and a code of ethics; the use of rituals, symbols and specialist languages; a legal monopoly; and the power and authority given to self-regulate. These are used briefly by Kedslie [1990, pp. 270-4] with reference to her findings on the Scottish bodies — that is, to evidence that, because these attributes could be demonstrated to have existed in the formation of these bodies, then each such body clearly had the characteristics of a professional body [p. 273].

Such a conclusion is logical and necessary in such a historical study. However, it limits the latter in its potential to explain the rationale of the professional accountancy body and its Scottish origins. Kedslie provides considerable data to make such a case. She fails to take the opportunity — despite having access to several authorities which could have assisted her. For example, she refers to Carr-Saunders and Wilson [1933] in terms of professional characteristics, but does not present this study as an example of the functionalist approach to the study of professionalism. This is the view that the professional exists to provide a functional service within the public domain, and that his actions are primarily guided by altruism — of putting service to the public before economic or social self-interest. Kedslie [1990, p. 262] also makes brief and incidental reference to Larson [1977], a principal advocate of the alternative critical school of professionalism — but without mentioning his model of the professional as a person seeking market control over needed services and upward social mobility by a process of public legitimation of his actions.

In other words, the evidence provided by Kedslie of the emergence and development of professionalized accountancy in mid to late nineteenth century Scotland is presented without a formal theoretical framework. In particular, the extensive and valuable data which she has gathered have not been discussed or interpreted from either a functionalist or critical perspective. For example, there is a considerable literature on the power-knowledge relationship in the context of professional activity — that is, where there is a body of knowledge, there is the exercising of power, and vice versa. Johnson [1972, pp. 41-7] discusses this concept in terms of a profession creating a structure of uncertainty [p. 42-3] which can be both threatening and exploitative [p. 44], and thereby exercising occupational control [p. 45]. Bledstein [1976] argues in similar terms — of the professional having power through command of his discipline [p. 90], special rituals reinforcing the mystery of his power [pp. 93-4], invoking disasters to increase client dependency [pp. 99-100], and cultivating irrationality.
by uncovering anomalies [p. 102]. Larson [1977], also writes of the ideology of (professional) competence creating a societal image that subconsciously fuses power with superior ability and self-development [p. 241], but which uses the work ethic, universal service and noblesse oblige as components of a marketable commodity [p. 220]; professionalism as a means of controlling educated labor and co-opting elites [p. 237]; professionals constructing reality on their terms, thus obtaining a minimum of social authority [p. 231]; and professionals having a monopoly of competence as well as practice in terms of authority over a body of knowledge [p. 231].

Putting these ideas in the context of professional accountancy, Kedslie could have hypothesized that the early Scottish professional accountants acted in a concerted way to monopolize a body of knowledge or competence which they could exclusively practice; created an atmosphere of dependency for such services by pointing out the need for altruistically-driven superior abilities to successfully remove observable uncertainties to maintain the public interest; and reinforced such superiority by explicit signs of elitism and status. The evidence provided by Kedslie is certainly consistent with this model. For example, attempting to achieve professional monopoly in the areas of bankruptcies [pp. 50-77 and 114-34] and company audits [pp. 135-71]; involving a need for skilled professionals to deal with complex issues in bankruptcies and audits [p. 57, 62, 75, 141-2, 156, 160-1 and 168]; creating an image of elitism and status in terms of specific entry standards including apprenticeships, entry and membership fees, and education and examination [pp. 188-217]; and using the idea of the public interest to exclude other bodies from the domain of public accounting [pp. 218-39], protect the title of chartered accountant [pp. 239-49], and attempt to register only chartered accountants [pp. 249-61].

Kedslie does make some oblique references to these issues and interpretations, but her thesis is weakened by a lack of explicitness. In particular, she fails to provide her reader with a strong flavor of the ultimate challenge for the early Scottish chartered accountants — that is, what Montagna [1974, pp. 4-5] has described as the conflict between public interest and self-interest, and the need to balance these opposing responsibilities. In addition, because of her lack of a theoretical framework, she has neglected to relate her findings explicitly to the research of other writers in the same area — for example, the factors relating to recruitment and self-recruitment in the Scottish bodies [Walker,
1988]; the use of the examination process to create occupational control [Hoskin and Macve, 1986]; the standardizing of knowledge and the institutionalizing of training to gain social rewards [Richardson, 1988]; and social closure through occupational registration [MacDonald, 1985]. She has presented facts about actions without necessarily attempting to clearly “get behind” the thinking behind the actions as recommended by Collingwood [1974, p. 37].

CONCLUSIONS

As stated at the beginning of this review, there is a need to know how professional accountancy came to be what it was not. However, much of this process of investigation and explanation is subject to the constraint of the historian. In this case, Kedslie has provided much useful material to describe the emergence of professionalism in accountancy in Scotland. What is still required is an interpretive approach to such data to provide explanation and understanding. As she reveals in her preface [Kedslie, 1990, p. xiii] and conclusion [p. 274], recent events in the history of The Institute of Chartered Accountants of Scotland suggest that the process of professionalization is a continuing affair which will require further investigation and explanation. Dr. Kedslie is to be encouraged to continue that process as part of the larger task of understanding the role of professional accounting and public accountants in society.

REFERENCES


Reviewed by

Thomas J. Burns

The Ohio State University

In the Epilogue, Lord Benson says he is loyal to the following prayer (and his autobiography surely reflects it):

Not the quarry, but the chase,
Not the laurel, but the race,
Not the hazard, but the play,
Make me, Lord, enjoy always.

This delightful book is the personal history of an accountant who seems to have done everything and enjoyed every minutes. Born in South Africa, his mother was a poor relative of the Coopers accounting family; while a boy on a trip to England, the family decided he would enter the firm as a clerk when 17. He did, qualified as a chartered accountant at 23, and became a partner at 25 (due to ability and, as he reports, nepotism). He went on to become the English head of the firm, conduct investigations throughout the world for his firm, for the Bank of England, and the government, even chairing the first International Accounting Standards Committee. A listing of special assignments and appointments covers six pages including his election as the only living non-American to The Ohio State University Accounting Hall of Fame in 1984.

His personal life has been equally rewarding. Married for 50 years, he has three children (one who is in what seems to be the family firm, Coopers & Lybrand), and nine grandchildren (a photo of eight nude on a slide is included). A sportsman who developed a middle-aged passion for sailing, he has taken the entire family on safari in Africa and sailing in the Greek Isles. Determined, he took 52 years to catch a single expensive salmon but he seems to enjoy it all in this fully packed life. He is a good carpenter in his spare time and enjoys making cabinets.

This account of his life is far more candid than any other accountant has written and also includes his frank opinions on many issues including those of accounting, business, politics, society and life in general. He traveled more than a million miles on business alone by planes, cars, taxis, camels, river boats, ocean liners, trains, rickshaws and by foot, mostly to open offices overseas and to ensure such offices maintained standards.

Illustrative of this account of a life at the top is his description of how to conduct a large scale investigation. He starts by breaking the subject down into a number of topics. Next a list is made of the information needed under each topic. Prepare a series of questions (sometimes 1,500) for which answers are needed. Make a list of the people needed to see and in what order. Interview with tape recording (or a skilled associate). Transcribe notes immediately. Test recommendations against evidence. Expect five or six drafts of the report with the "...first preliminary draft put together by a junior partner..." [p. 86]. Finally use common sense.
Fraud has been a subject of considerable concern. His audit cases on this subject include one in Hong Kong which took three years of his expert witnessing. He also had service on the Roskill Committee which made suggestions on how to improve criminal procedures for fraud.

When told that an Australian accounting student audience was only interested in sex and crime, he told them that he was out of date on the one and shy about the other. But, he told them, you will never be paid enough until you are old (when you will be overpaid), you will often be offered bribes, not in money, but in flattery, your colleagues can be helpful if you let them and you should truly cherish your independence.

The following four lines epitomizes everything important to him:

I would be true, for there are those who trust me;
I would be pure, for there are those who care;
I would be strong, for there is much to suffer;
I would be brave, for there is much to dare.

When he retired from the firm, he was with the Bank of England for eight years. For centuries this bank fired employees who refused to work on Sundays or who joined the Roman Catholic Church. He found that the Bank still maintained tight discipline. He first met Mrs. Thatcher, later to become prime minister, when he was called into a cabinet meeting to discuss the financial fate of Rolls-Royce. She tried to engage him in private conversation, much to his impatience. When he entered the House of Lords, his maiden speech, most appropriate for an accountant, was on inflation.

In a negotiation valuing shares, he tossed a coin with his opponent, a partner in another large firm, about whether to add an extra million pounds. Benson lost. He and an associate arranged for the merger with the American firm of Lybrand, Ross Bros. & Montgomery in 1957. From 1945 to 1975 (when he retired), the firm, now Coopers & Lybrand, grew from eight offices worldwide to 332.

As the first chairman of the IASC which develops standards, he recommends first, "that those standards need to be tighter and the alternatives reduced or eliminated ... Second, ... whenever financial statements are issued to the public they should state whether they comply with international accounting standards and, if they do not, the extent to which the standards have been observed" [p. 113]. He also insists that every accountancy board any-
where needs to do a better job of seeing to it that standards are applied.

Sixteen pages of photos illustrate the book. Included are several cartoons from Punch which use Benson's name in the captions. Don't overlook his description of the benefits of a raw mouse sandwich!


Reviewed by
Patti A. Mills
Indiana State University

By the middle of the twelfth century, the counts of Barcelona had established a loose hegemony over what was to become the Kingdom of Catalonia. This beautiful work by a noted medievalist is an annotated edition of account summaries and other accounting-related records of these early count-kings. Comprising all of the extant accounts, inventories and commissions of the comital-royal domains, and a selection of other fiscal records, these documents are an invaluable resource for the study of early governmental accounting.

Each of the documents is carefully transcribed according to the editorial standards of the Commission Internationale de Diplomatique and is accompanied by a brief summary of its contents, a physical description and editorial notes. The texts are in medieval Latin. For the reader who has no knowledge of the language, the most valuable part of Bisson's work will undoubtedly be his masterful 162-page introduction, in which he offers his own analysis of the documents and the historical background necessary to their understanding.

At the heart of the introduction are three chapters which Bisson uses to explain the general administrative structure and economy of Old Catalonia; and to chart the development of public accounting procedures and other fiscal activity during the period 1151-1213. Bisson's account is incredibly rich in detail, especially his description of local administration; but like other master historians, he manages to distill from his carefully reported findings important conclusions. The evidence shows that over the course of the period accounting and audit activity improved in this corner of the Mediterranean, as was the case in other areas of Europe. The
main impetus, however, was to strengthen the counts' credit, the lifeblood of their expansionist designs. Indeed, the counts' chief fiscal officers — the accountants and collectors who initiated fiscal reform — were normally his principal creditors. As Bisson writes, "building efficient institutions was not yet an end in itself in the early thirteenth century" [p. 150]. Despite advances in routinization and in the management and preservation of written accounts, public accountability at this time was essentially patrimonial rather than bureaucratic in nature.

The introduction is supplemented by ten "related studies" which assemble a wide variety of information gleaned from the documents. For example, one of the studies provides a "biographical conspectus" of the accountants, auditors and scribes engaged in the fiscal administration of the comital domains. The known audits or "sessions of account" are listed chronologically in another study. Another attractive feature of the work is the series of 23 black-and-white plates which show the actual scripts and endorsements of several documents.

Few governmental accounting records survive in the aggregate prior to 1250. By his efforts, Thomas Bisson has afforded us a unique glimpse into the early stirrings of public accountability.


Reviewed by
Moyra J. M. Kedslie
University of Hull

This beautifully produced book provides us with an explanation of why a professional body for cost accountants emerged and of the subsequent formation and early years of that body, then called the Institute of Cost and Works Accountants. The period covered is very narrow when measured in years but extremely significant in terms of the changes in the British economy and social structure which took place during and after the First World War. It is interesting to see the opportunities that the war presented for cost accountants and the manner in which they capitalized upon this in 1913 when the Institute was formed.

Chapter Two sets the scene for the birth of the new professional body by examining the development of cost accounting sys-
tems in Britain towards the end of the nineteenth century and beginning of the twentieth century, which led to a growth in the number of men employed as costing clerks. The second factor to be considered is the impact of the First World War on industry and the involvement of professional accountants in government work. Because the chartered accountants and incorporated accountants were members of well-established professional bodies, they were often recruited to assist in this work in preference to costing clerks with no professional affiliation. This preferential treatment undoubtedly indicated to costing clerks, many of whom must have been highly skilled and experienced, the lower status attributed to them by virtue of their lack of an organized body and provided the catalyst for such a formation.

The formation and early organization of the ICWA is dealt with in some detail in Chapters Three and Four. Understandably, the cost accountants attempted to model themselves on the existing professional accounting bodies and to form "an Institute equal in status to the Chartered Accountants" [p. 47]. This view was at variance with that held by the Institute of Chartered Accountants in England and Wales whose president declared at the 39th Annual General Meeting of the Institute [Accountant, May 8, 1920, p. 548]:

In my opinion, "Costing" has lately become almost a science, and ought to form a part of the education of every Chartered Accountant in a much larger degree than it has apparently done in the past, but that does not justify a separate organisation amongst members of the Institute. It is most undesirable to encourage these outside formations, as, if they deal with subjects that appertain to our profession, then by all means let those subjects be included more liberally in our curriculum.

The president was referring to his speech to the Costing Association [p. 37] but it is reasonable to assume that the CAs held similar views on the formation of the ICWA.

Finally the book deals with the early membership of the ICWA and includes eight fascinating reports of interviews with surviving founder members. This is the most enjoyable part of the book and is an excellent example of the use of oral history.

It would be impossible to review this book without making some comparison between it and Anne Loft's earlier book for which she received the 1990 Hourglass Award. Much of the new book is a reiteration of Chapters Six, Seven and Eight of the ear-
lier one with the addition of archival material on the early days of the Institute and a much fuller coverage of the oral history aspect. However, this repetition can be forgiven on the grounds that the target audience is different — it would make an excellent gift for someone who had worked through the early development of professional costing. Another regrettable similarity between the two books is the lack of index and, in this case, of a bibliography. Nevertheless, this is an interesting and well-produced book which should have considerable appeal to a wide range of readers.
The Accounting Historians Journal announces that the NINETEENTH ANNUAL HOURGLASS AWARD for the most notable contribution to the literature of Accounting History has been awarded to Philip D. Bougen for his publication Accounting and Industrial Relations: Some Historical Evidence on Their Interaction Published by Garland Publishing

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