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Accounting and Auditing History: Major Developments in England and the United States from Ancient Roots Through the Mid-Twentieth Century[1]

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Summary

The history of accounting and auditing, as inextricably entwined disciplines concerned with the communication of information about economic events affecting governmental or private entities, is traced from the beginning of recorded history to recent times. Both disciplines have developed as a response to emerging needs of the times, and both have facilitated the development of capital markets that have supplied the tremendous amounts of capital to satisfy the demand that was an outgrowth of the Industrial Revolution. Closely associated with the development of the two disciplines has been the emergence of the accounting profession, playing a key role in more recent times in advancing the state of the art in both professional practice and in the development of accounting and auditing standards.

The following chronological synopsis of major developments in accounting and auditing constitutes the framework for the more extensive treatment the paper gives to the evolution of the two disciplines. The rationale underlying these developments is likewise considered.

Major Developments	Principal Causes
Means of communication	Communal activities
Writing	Need for a record of economic goods
Accounting and auditing	Accountability for tribute exacted by ruling authority
Accounts of transactions with others and of trading activity	Economic benefits of trading activity arising from the development of private property
Accounting for owner equity–double entry	Measurement of the increase in wealth from trading
Formation of stock companies and reporting of results to third parties	Demand for capital to extend trading abroad
Chartering of companies with limited liability and subject to specified reporting requirements	Extension of the need for capital accumulation generated by the Industrial Revolution

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Audited financial information for third parties	Extended development of limited companies with widespread ownership facilitated by stock exchanges
Professional organizations of accountants and auditors	Increasing number of accountants in response to growth and complexity of business operations
Shift of accounting emphasis from the balance sheet to the income statement	Reliance on income as the source of dividends and capital growth
Accounting and auditing standards; securities regulation	Growth in Big Business and the ensuing Great Depression; dependence by investors on reported financial information
Performance auditing	Quest for improved efficiency and effective ness in all large organizations, including government and not-for-profit organizations

Introduction

> By understanding the past, we incorporate it into our present thought and enable ourselves by developing and criticizing it to use that heritage for our own advancement.
>
> \- Historian R. G. Collingwood

> Each new generation must learn for itself. But each new generation will think more intelligently if it knows what its predecessors have thought and done.
>
> \- John R. Wildman, in his Foreword to Green's *History and Survey of Accountancy*

This historical account of the development of accounting and auditing is dedicated to the precepts expressed by Collingwood and Wildman. As background for the account that follows, it should be recognized that in common with other skilled occupations, accounting and auditing evolved in response to the needs of an increasingly complex and interdependent society; however, because the pursuits are intellectual as well as practical, accounting and auditing merit classification as a profession rather than as a trade. Early in the development of a profession that involves an element of skill, the emphasis tends to be on the practice of those skills: how to perform the necessary actions; only later do the professional aspects of knowledge, understanding, and judgment become evident. During those early stages of development, the training of neophytes likewise tends to reflect the preeminence of practical skills, with emphasis on what is to be done and how it is to be done. In the case of accounting and auditing, even when on-the-job training under the tutelage of a master gave way to classroom instruction, the principal change that occurred was in the environs rather than the instructional approach. Gradually, however, the description of procedures and techniques was supplemented with consideration of the objectives of the procedures, and eventually emphasis shifted to the professional, stressing knowledge, understanding and judgment.

In tracing these and other developments related to accounting and auditing, attention first is directed to the roots from which accounting and auditing emerged as a response to the needs of the times, and a conscientious effort has been made whenever possible to indicate the probable causes of change along with presenting a description of the major changes and developments that occurred.

An Accountant's View of History

The historical account that follows is clearly an accountant's view of history rather than an historian's view of accounting, and highlights the fact that accounting and auditing would seem to have played a more significant role in our economic development than is often recognized–a role that can be traced from the beginning of recorded civilization to the present day. To facilitate comprehension of a sweep of such vast dimension, 6,000 years of history are subdivided into eras marked by milestones that are the more significant factors and events in the development of accounting and auditing:

Forty centuries B.C. to fifth century A.D. – the development of writing and records.

Fifth century A.D. to 1500 – the introduction of Arabic numerals and place value and subsequent use of that number system in the development of the double entry system of bookkeeping.

1500 to 1790 – from Pacioli's *Summa* to the beginning of the Industrial Revolution.

1790 to 1900 – from the Industrial Revolution to the period of mergers and "Big Business."

1900 to 1930 – the development of Big Business and its relapse with the onset of the Great Depression.

1930 to the present – the advent of regulation in the United States; development and maturation of accounting, auditing, and the public accounting profession.

Forty Centuries B.C.–Counting and Writing

With the development of the ability to communicate through spoken language and the cooperation that communication made possible, people banded together and thereby became susceptible to some form of governance and control. Invariably the power of the ruling authority was used to exact tribute from the governed, and the resulting accumulated wealth presented problems of control that exceeded the ability to keep track mentally of what had been collected. Adequate control depended on a record of what was received and disbursed, and was probably a contributing factor to the development of writing. Indeed, Eric Hoffer (1966) was prompted to observe that writing was developed not to *write* books but to *keep* books.

Some of the earliest known writings originated in the Mesopotamian Valley of the Middle East about 4000 B.C. (Keister 1965), and appear to be commercial records created to account for physical things by marks scratched into clay tablets. The writing and associated counting to record the quantity of things were representational in the form of pictographs–pictures of objects or parts of objects with each picture of an object representing a count of one. It is evident that the object of such writing was to keep track of accumulations of things (wealth), and it is the accounting for wealth that has ever been the focus of the keeping of records.

Early records were scratched into stone or inscribed on tablets of moist clay, which were then dried in the sun to preserve them. Some records were made on the Egyptian-developed papyrus, but papyrus was more expensive and less permanent, so few papyrus records are available for study.

Later, to simplify writing, whole pictures of objects were reduced to characteristic parts of objects, and ultimately curved lines were reduced to short straight wedged lines to facilitate recording on the moist clay with the stylus, resulting in what we know as cuneiform writing, from the Latin *cuneus,* meaning wedge. At this point, representational counting was in the form of a tally system, with one mark for each object. The literal system of Roman numerals is a further development of the tally system, with other characters substituted for groups of straight lines in the interest of economy.

Developing along with writing was the scribal profession–a most vital and respected occupation, for the scribe was usually the only person in the community who could read or write. The brightest children were selected to become scribes and were sent to the temple to learn reading and writing, as well as arithmetic, law, and moral precepts. Such learning had a strong commercial orientation, for the scribes were most often employed in temples and palaces to prepare and read the records of the religious and economic events that had occurred. These scribes were, of course, the forerunners of today's accountants.

Control systems were developed to assure accountability and accuracy, and a "program flow chart" in picture form, found in the tomb of Chnemhotep, illustrates such a system. This picture shows corn being brought to a storehouse, weighed under the supervision of an overseer, and placed into sacks, with a record of the sacks prepared by a first scribe. Then, as the sacks are carried to the roof of the storehouse and emptied, a second scribe prepared a record of the sacks at that point (Brown 1905, 21). Although the pictures do not show the two records being compared, it appears that the purpose of the second record was to serve as a check on the first, thus providing the basis for subsequent audit verification.

Brown observes that similar checks occurred as grain would be issued from the storehouse. Issues required a written order, and as the requisitioned grain was measured out and released, a scribe recorded these events, with the written order serving as the supporting check of the recorded issues and providing the final element of a complete and verifiable stores record of all movements of the grain. Author ten Have (1976, 25) observes that such records of the quantity of goods made it possible to audit the custodians in terms of the quantity of goods received and the quantity on hand.

Moving ahead to the time of the Romans and their audit activities, Brown (1905, 32) states that "The quaestors (who handled all public funds) on demitting office rendered an account to their successors of the state of the funds and of the condition of the registers, and they also submitted accounts of their administration to the senate," (presumably for review and acceptance). Brown also mentions that the extensive government operations to be accounted for resulted in the creation of a central accounting office called the *tabularium,* where the work was carried on under a superintendent by a host of bookkeepers or *tabularie* and their assistants, who were often slaves.

The Greeks, at an earlier date, showed prescience in the use of published "financial statements." The cost of constructing the Parthenon, a storehouse and temple to the goddess Athena constructed 447-432 B.C., was chiseled on a marble column placed on the Acropolis in Athens (ten Have 1976, 25).

Fifth Century A.D. – Arabic Decimal

Notation and Place Value

Although early records seemed to pertain almost entirely to the large accumulations of wealth by rulers or governments, private wealth also existed in limited amounts where a parallel system of private property made that possible. Private property existed primarily at the sufferance of the ruler or central authority to the extent that producers were permitted to retain that portion of the fruits of their labor that remained after the collection of taxes. Private property coupled with personal freedom to engage in activities of the individual's choosing in countries fortunate enough to enjoy those privileges opened the door to the abundance of material things enjoyed in many parts of the world today, and constitute what Weaver (1953) calls "The Mainspring of Human Progress."

Trading was a natural concomitant of private property and provided the opportunity to increase satisfaction and wealth. Although trading originated on a local basis, it gradually extended to distant locations in order to add to the supply and variety of goods available locally. One of the commodities frequently traded was gold because of its universal appeal, with the use of gold as a medium of exchange eventually leading to the development of money in standard units of value. When occasionally transactions were consummated on the basis of future money settlements, this use of credit (from the Latin *credere,* to trust) provided further facilitation of trading activity.

Records of property inflows and outflows that had been developed for heads of state were found to be equally useful for the early traders of the Mediterranean area. "Accounts" of their trading activities in the form of narrative records were kept by means of tallies or cuneiform characters, but these eventually gave way to other systems, such as Roman numerals, as more efficient means of keeping track of the money amounts representing the ownership and movements of goods. Similar records of money itself were maintained in the case of banks, developed as "storehouses of money" and for the exchange of the various kinds of money in circulation.

But arithmetic operations performed on Roman numerals were most cumbersome, and it was easier to count on one's fingers, or to convert the numbers to the place value symbols of the abacus and to perform the operations by that means than to perform the operations mentally (ten Have 1976). The breakthrough to the more efficient and manipulable base-ten system that we know as the Arabic system of decimal character notation and place value is credited to the Babylonians (Cooley 1937), although Babylonian traders may have brought back knowledge of the system from their trading with the Hindus of India. Especially important to this system is the incorporation of the symbol for zero to replace the blank space representation of the absence of anything sometimes used by the Mesopotamians (Keister 1965), and has prompted one wag to remark, "thanks for nothing."

The Babylonian system was carried by their traders to Spain, and eventually introduced to all of Europe in the twelfth century as the system was copied from the Arabs of Spain. Dissemination of information about this new system was aided by a book on the Arabic system of numerals and their use in computation written by Leonardo of Pisa in 1202 (Littleton 1933).

Italian merchants were said, however, to have been resistant to the new system at first because Arabic records and documents were easier to alter than those in which Roman numerals were employed (ten Have 1976). The use of Roman numerals also persisted in official and public documents for many years, since that was often considered to be the only proper form for important matters of public interest (Brown 1905).

1494 – Pacioli and Double Entry

The first readily recognizable accounting milestone appeared in 1494 with the publication of Frater Luca Pacioli's 210-page treatise *Summa de Arithemetica, Geometria, and Proportioni et Proportionalita* (Everything about Arithmetic, Geometry, and Proportion) which included 36 segments on bookkeeping (Green 1930, ten Have 1976). Worthy of note in this connection is the indication that accounting was considered a part of the study of mathematics; that characteristic of the church as the center of learning, the book was written by a Franciscan friar; and that the significance of the book is suggested by the fact that it was one of the early books set by the movable type system invented by Gutenberg about 1450. (Note that the Pacioli Society, in celebration of the quincentennial of the publication of Pacioli's treatise is planning a "pilgrimage" to Sansepolcro, Italy (the birthplace of Pacioli) in June of 1994, where a symposium on accounting history will be presented by scholars from throughout the world).

Although as a result of the bookkeeping section, Pacioli is sometimes referred to as the "father of double entry bookkeeping," Pacioli in preparing the book was largely engaged in writing down what was already known. Indeed, de Roover (1938) states that the Pacioli work was essentially a copy of a contemporary manuscript circulating in the schools of Venice, and that in many ways practice in the fifteenth century was far ahead of the theory reflected in what had been reduced to writing.

Development Factors

In some of the earliest record systems only personal "accounts" were kept, and a narrative form was common. The narrative form is perhaps traceable to the "log" maintained by trading ship captains. The principal function of the log was in determining and recording the ship's position by "dead reckoning" on the basis of direction and distance traveled. At regular half-hour intervals based on the sounding of the ship's bells according to the ship's chronometer, direction of movement was determined from the ship's compass and recorded. Distance traveled was determined by the ship's speed of movement, which was calculated by throwing overboard a log to which was attached a line with knots tied at fixed intervals. By counting the knots payed out as the ship moved away from the log during a given period of time, the speed in "knots" could be determined and recorded in the ship's log–which derived its name from the jettisoned log that established the starting point for the calculation.

All major shipboard happenings were likewise recorded in the log, such as the hands signed on for the voyage, storms encountered, injuries or deaths that occurred, ports visited, supplies and wages issued to members of the ship's crew, and most important from our accounting point of view, the inventory of trading goods taken aboard at the beginning of the voyage, and the exchanges of goods that took place at the ports of call. The managerial role of the ship captain thus extended to operating the ship, looking after the safety of crew and cargo, effecting advantageous trades, and keeping a meticulous record of all noteworthy events so that at the termination of the voyage the profit (in the form of goods) could be determined and allocated among the venturers who had financed the voyage.

These "accounts" of trades and other transactions eventually came to be maintained under a bifurcated system, with the narrative pertaining to increases in an account (historical record) of related transactions entered at the top of the page and decreases entered on the lower portion of the page (ten Have 1976). To this system was eventually added the convention of arranging the narrative so that amounts expressed in terms of money appeared in columns to facilitate addition of the figures (ten Have 1976).

Among the developments that gave rise to the double entry system was the growth of merchant trading and banking in Italy during the Middle Ages. The promise to pay, or credit, was sometimes used in obtaining financing, but entrepreneurial capital was mostly the result of personal accumulation. "Personal" accounts were maintained of credit transactions. Subsequently, impersonal accounts for things were added to the system, as well as an account to keep track of the merchant's own affairs–the amount invested and the results of household and trading operations.

At about the time that impersonal accounts and the merchant's investment account were being added to the personal-account-only records, the advantages of a bilateral arrangement of each account became evident. To clearly distinguish between *debitor* accounts (he owes) and *creditor* accounts (he trusts), increases in the former were entered on the left side of the account and increases in the latter accounts were entered on the right. As perhaps the more important of the two accounts to the merchant trader, debitor accounts appeared first in the ledger, and since writing proceeded from left to right, it was apparently natural to have increases in the important debtor accounts on the left, with increases in the opposite type of account on the right. Although no contemporary rationalization has been found for the convention of debits on the left, the suggested relationship to the left-to-right writing convention is supported by the fact that in Arabic-language countries the custom is to record debits on the right, corresponding to the right-to-left convention of the written language.

The technical terms *debit* and *credit* appear to be related to be two basic classes of accounts, with debits being increases to *debitor* accounts and credits being increases to *creditor* accounts. This debitor/creditor account system holds the explanation for the neophyte's confusion that readily attributes the abbreviation *cr.* to credit but leaves *dr.* unattributable to debit, whereas the terms are apparently abbreviations derived from creditor and debitor.

Other Features

One feature of the all-inclusive self-balancing system described by Pacioli was the "Memorial," or day book. A major purpose of this record was to show the conversion of barter transactions and transactions expressed in "foreign" monies to the particular currency chosen as the standard for succeeding entries in the journal and ledger (Green 1930). We no longer find such a record in accounting systems of today inasmuch as barter has been replaced by money exchanges, and the accounting for foreign branch and subsidiary operations has been decentralized, with currency translation handled as a worksheet operation associated with the preparation of consolidated statements. Foreign transactions entered into by a domestic unit are converted to local currency directly on source documents before the transactions are recorded in the journal.

Another feature of the records of Pacioli's day was the validation of the bound books of account by the impressing of the state seal by the consul or other city official (Green 1930). This procedure was followed to establish the official nature of the books before they were "opened," with the importance of that act indicated by the fact that the record of the indebtedness of another in such official records could be sufficient to hold the party for a debt at law.

The forerunner of this notion of the credence of books of account is suggested by the record of trial involving one Roscius, who was defended by the renowned Cicero against a debt claimed to be owed to a C. Fannius Chaerea. Cicero makes a major point of the fact that Fannius was unable to produce a record of account showing that the amount in question was owed by Roscius (ten Have 1976, 28). To further establish the authenticity and correctness of legal documents in banking transactions, a witness to the transaction might be noted on the record, as an outgrowth of the practice described by ten Have (1976, 26): "It is probable that the evidence of the existence of a credit relationship was generally not furnished by the existence of notes or bookkeeping entries, but rather by witnesses who were present at the time that the credit relationship originated."

As has already been mentioned, the major advance in record keeping of the period under discussion was the addition of accounts other than personal accounts, with the key account being the record of the proprietary interest of the owner of the business. With the closing of the circle, double entry and the equality of debits and credits had become a reality. The earliest known records reflecting the double entry concept are the ledgers of Renieri Fini & Brothers (1296-1305) and Giovanni Farolfi & Company (1299-1300)(Lee 1977, 79).

Proprietary Equity

Merchant trading was but the outgrowth of simple peddler activity, but on an expanded scale and ever more widely ranging. Acquiring goods from distant places gave rise to agency arrangements, with agents entrusted with goods or money to carry on trading activities on behalf of their principal. If the capital to engage in such expanded activities was not available from personal sources, not infrequently the entrepreneur would seek additional resources by entering into partnership with others.

Double entry bookkeeping incorporating the concept of the proprietary equity was developed to accommodate the entrepreneurial need for information about the expanding multiplicity of goods, activities, and relationships. Foremost among these were needs for records of the goods owned, credit transactions, and agency and partnership relationships, with the proprietary accounts necessary to make the record complete. It was not uncommon in these early days of double entry to include the owner's household transactions in the owner's capital account, suggesting that the household was the economic unit being accounted for. Green (1930) points out, however, that some merchants kept two sets of books - one for the home and one for the shop, and Littleton (1933, 36) notes that with the growth of trade there developed the practice of trading through agents or partners, with the attendant records likely containing only business transactions.

The multitude of transactions in the owner's equity account suggested the desirability of separately classifying and recording similar transactions and gave rise to the introduction of "nominal" accounts, which Lee (1977, 88) dates to the first half of the fourteenth century, and which in contrast to the "real" accounts in the ledger, were accounts in name only.

In maintaining the ledger, as the page for an account became filled the balance of the account would be transferred to a new page and the record continued thereon, so that there was little order within the bound ledger. The books often were not "closed" until completely filled and a new book was opened, although closing the books at the end of the year was sometimes recommended (Green 1930). Closing the books involved the transfer of all nominal account balances to a profit and loss account, and the transfer of the profit and loss balance to the owner's capital account. All real accounts were then summed, balanced, and the balance transferred to a page of balances (balance sheet). If the totals of debit and credit balances agreed, the books were considered balanced and closed, at which point the balances of the real accounts were entered below the balanced and ruled amounts, ready for the next cycle of transactions and entries.

Joint venture and partnership arrangements began to emerge during the period of Pacioli as a means of assembling additional capital and entrepreneurial skills, and hence Pacioli set down the principles and recommended entries for the conduct of partnerships as well as sole proprietorships (Green 1930). A partnership arrangement increased the importance of maintaining complete records that included the proprietary interest, in order to ascertain the division of profits (or losses) among the partners, and of course the partnership records would contain only the results of transactions of the partnership, and not household transactions as in merchant trader records.

English Developments to the 15th Century

Accounting development in England in some ways paralleled the developments in countries of the Mediterranean region, although England's remoteness from the major trade routes tended to delay the introduction of the innovations of the merchant traders. Much of the following information is drawn from Michael Chatfield's (1968) own essay "English Medieval Bookkeeping: Exchequer and Manor" included among the collected readings in his *Contemporary Studies* as given in the references.

Public Records

In common with the situation in other areas of civilization, there existed the need for records of the public revenues to support the government. The earliest surviving accounting record in English is the sheepskin Pipe Roll or "Great Roll of the Exchequer." The Pipe Roll was prepared each year from the *Domesday Book,* a census and record of real properties and the taxes assessed thereon, based on a survey in 1086 after William the Conqueror took title to all property in the name of the crown. The Pipe Roll is a narrative covering seven hundred years, relating to taxes and other levies due the king, the amounts of such taxes collected and remitted by the county sheriffs to the Court of the Exchequer, and the expenses incurred in collecting the taxes.

The Pipe Roll was maintained in the department of the Upper Exchequer as an accounting for all receipts and payments. The Upper Exchequer had the authority to examine the Lower Exchequer or Treasurer's Department that received all monies and payments in kind, either directly or through the sheriffs, who were the king's representatives. It is from the relationships between the two divisions of the Court of the Exchequer and the sheriffs that we have obtained our word "audit" (hearing), even though the verification or checking functions performed are of much earlier origin.

The sheriffs brought to Exchequer sessions at Westminster at Easter the portion of the year's taxes and rents for the king's lands collected to that time. The monies and payments in kind were paid into the Lower Exchequer and notched incisions were made in a "tally stick" to record the amounts. The stick was then split along its length, with the stock or larger piece taken by the sheriff as a receipt for the amounts deposited, and the smaller foil kept by the treasurer as a "carbon copy" for the Exchequer archives. At Michaelmas, the sheriff would bring the additional amounts of revenues collected since Easter and submit to an audit. Final settlement for the year took place across a chequered cloth patterned after the chess board, and it is after this chequered cloth that the Exchequer is named. The treasurer would read from the Exactory Roll (based on the Domesday Book) the amounts due for that year from each farm in the sheriff's county. An official called the "calculator" would place "counters" on a row of squares equal to the amounts called by the treasurer. Both sheriff and treasurer had to agree on the results of this operation, which showed the amount with which the sheriff had been charged. Then, on a row of squares pertaining to the sheriff, the calculator would lay out counters equal to the installment paid at Easter as shown by the matched pieces of the tally stick record that had been made earlier. On other rows, counters were placed for the Michaelmas collections being remitted and for the amounts of the sheriff's expenses and allowances as evidenced by writs warranting those amounts. When the counters for the amounts due were fully balanced by counters for the payments made, the entire operation having been observed by all parties based on the hearing (audit) of the accounts, the sheriff was "quit" and the audited amounts were recorded by the Upper Exchequer on the Pipe Roll in summary form.

Disbursements from the treasury were authorized by "writ" of the Exchequer, a written order to pay, and it is apparently from this practice that we derive the popular term for bank drafts as orders to pay, with the English referring to the draft as a "cheque" and Americans as a "check."

Brown (1905, 75) reports the keeping of separate records as a check of one against the other, such as the Exchequer's Pipe Roll, the roll kept by the Chancellor's clerk, and a third by a special representative of the king. At the end of the year the records were compared and footed by the auditors, with the probatum abbreviation "Pb^{t}" inserted beside each amount and sum so verified.

Manorial Records

In the private sector of England, the key activity on which the keeping of records focused was the landed estates or manors, rather than merchant activities as in the Mediterranean region. These sizable estates held by titled persons presented a major management challenge, and records were needed to aid in the functioning of the manors. Management of these large feudal estates often encompassing hundreds of people was normally placed in the hands of stewards, and the lord depended on the keeping of accounts as a check on the honesty and performance of the stewards. Thus, two major aspects of the manorial system were the charge and discharge statement pertaining to the principal/agent relationship and the management use of accounting information. The earliest developments of internal check (as a fundamental aspect of internal control) for private activities seem to have occurred in these circumstances. The lack of a double entry system in these records is probably attributable to the absence of the profit motive that propelled the trading activity of the Mediterranean region. As a consequence, the prime need was for accountability, and there was apparently little interest in or need for any accounting for changes in ownership equity.

The accounting use of "to charge" as the equivalent of "to debit" is probably attributable to the English influence, as reflected in the manorial responsibilities of the stewards and the meaning of the verb "debit:" to charge with, as a debt. The manorial audit involved an approach much closer to the audit of modern times than was true of the audit of public records, which involved more of a form of internal checking. For instance, Chatfield (1968, 37) writes:

> Even six hundred years ago it was realized that an auditor's opinion had more value if he stood independent of the parties at interest. He began by carefully examining the accounts of all officers who handled money, checking their arithmetic and the reasonableness of expenditure warrants. If it had not already been done, he then combined these accounts into a charge and discharge statement for the whole manor, sometimes putting his initials beside subtotals and writing below the last balance, "heard by the auditors undersigned."
>
> Finally came the annual Declaration of Audit. The charge and discharge statement as verified by the auditor was read in the presence of the lord and the assembly of stewards whose discharge of duties was under scrutiny. Each might be called on to answer questions and substantiate facts from his personal knowledge. One reason for an oral summary of accounts is obvious: the manor, like the Exchequer, had to be tuned to the realities of a largely illiterate society. But a public hearing...also offered special protection against fraud, since the facts were being laid simultaneously before all those qualified to recognize omissions and errors.

It was, of course, necessary to train practitioners in the art of keeping accounts and making audits. Oschinsky (Littleton and Yamey 1956, 93-94) mentions 20 treatises on manorial accounting compiled for clerks and auditors. Although dating of treatises is difficult to establish, Oschinsky (Littleton and Yamey 1956) concludes that four of the treatises were compiled prior to 1270. The manorial treatises generally contained specimen account forms, instructions for keeping the accounts, and guidance for auditors engaged in checking the accounts, including references to determining such things as the amount of salt to be allowed for salting specified amounts of meat and to investigating expenses for indication of possibly excessive eating and drinking by employees. Such was the need for manorial clerks that Oschinsky (Littleton and Yamey 1956) reports that teaching of manorial accounting was evidently a regular branch of the *arsdictandi* at Oxford by the end of the thirteenth century.

From Pacioli to the Industrial Revolution

During the period following the time of Pacioli, the activities of merchants, of the English manors, and later of the guilds, gradually increased in scope and volume. The accompanying accounting and auditing developments were similarly gradual and for the most part represented refinements of existing techniques.

Significant economic developments were the initiation of joint ventures to conduct trading on a more extensive scale and for periods of time beyond the duration of a single venture. The English (as well as the Dutch), denied for geographical reasons early access to the trade routes to the East, later formed large scale companies which were granted monopolistic rights to exploit trade with the East. Also, of course, in England there was the rapidly developing trade with New World colonies.

People in England who migrated from the feudal estates to the cities sought employment in the guilds that controlled hand making (manufacturing) of such necessities as cloth, iron cooking utensils and tools, and leather goods, and here, too, economic development had its influence on accounting.

Bookkeeping after Pacioli

Although Pacioli, in describing the bookkeeping system of Venetian merchants that emerged as early as the thirteenth century (Previts and Espahbodi 1977, 74) emphasized double entry and the method that incorporated the proprietary capital account, the merchant orientation of the system was largely toward the early idea of maintaining an historical record of assets and liabilities and the various events that affected the business. The setting of the keystone in the form of the capital account was more for the purpose of symmetry than for information to manage the business.

Although Pacioli recognized that the books might be closed periodically, he emphasized the notion of closing the books only when they were filled and it became necessary to begin a new record. Previts and Espahbodi attribute to Pacioli major refinements in the Venetian system, most important of which was setting forth the basic elements of a balance sheet. Pacioli's instructions included preparation of this rudimentary statement in the form of a periodic trial balance, but it was "extra-compatible" and intended solely to prove the equality of debits and credits to indicate whether bookkeeping accuracy had been achieved.

Some merchants of that day had expanded their activities to the point where they established factors (agents) in other locations, but the regular statements required of the affairs of a factor seemed primarily for the purpose of recording the results of the factor's activity in the books of the merchant who was the principal and were apparently put to no additional use.

As had been pointed out in the previous section, however, the operation of English manors involved considerable managerial use of the accounting records through the charge/discharge aspects and the efforts to control remotely conducted operations.

Progress toward the preparation of periodic statements from records maintained under the Italian system of Pacioli is evident in the Flemish Ympyn's *New Instruction* published in 1543 (ten Have 1976, 60), although Ympyn recommended closing only every two to four years. The principal advance advocated by Ympyn was the incorporation of a balance account as a formal part of the system. The emphasis at that time was, however, still on the balancing aspect to prove bookkeeping accuracy.

Other important advances were advocated subsequently by another Flemish writer, Simon Stevin in his *Hypomnemata Mathematica* (mathematical traditions) published in 1605 (Brown 1905, 137). Stevin, like Pacioli, was a famous mathematician and wrote in his national language (rather than the more formal Latin) in the hope of disseminating knowledge more widely among his countrymen. In his youth, Stevin served as a bookkeeper and cashier, and for a period was an instructor at the University of Leiden. The breadth of his interests is suggested by the fact that he was a defender of the teachings of Copernicus, one of the first to make use of decimal fractions "by which we can operate with whole numbers without fractions," inventor of a form of locks for canals, and author of a treatise on fortification that was long a standard.

In his work in accounting, he advocated the use of double entry records in public administration and the segregation of business and private capital. He viewed bookkeeping as a sorting technique involving first a chronological recording and then posting on a systematic basis to accomplish the sorting. He also viewed business and its attendant bookkeeping as a continuous process, with a survey of affairs to be prepared as an "extra-compatible" matter whenever desired and disassociated from closing the books, thus suggesting the management orientation of these activities. User orientation is likewise evident in Stevin's early efforts at classification of items and in his advocacy of an annual reckoning, as observed by Woolf (1912, 130): "Interesting innovations to be noted are the grouping of items and the balancing of the Profit and Loss Account at the close of the year, instead of at the end of each enterprise or venture, which as we have seen, formerly obtained."

In Stevin's balancing process, he computed the net worth on the *staet,* a separate sheet of paper on which was listed all the real accounts (assets and liabilities), with the credit amount needed to balance representing the net worth. The profit (or nonprofit) was then calculated as the increase or decrease from the balance on the previous *staet.* He then prepared the *staet proef,* which was a listing of all the profit and expense accounts and which must balance with the profit calculated by comparing the two *staeten* balances to complete the proof.

Debits on the Right

Curiously, in the *staet,* Stevin listed liabilities on the debit side and assets as credits, the excess credits being net worth, (ten Have 1976, 65), but he gave no explanation for this reversal from customary practice. Of special note is the fact that the English followed an identical convention. It is uncertain whether the English purposely followed Stevin's arrangement in deviating from the arrangement of the accounts in the books, or whether this is simply English individualism comparable to driving on the left side of the road, the non-metric system of weights and measures, and the non-decimal system of money. Among other explanations are that the English followed their manorial system of charge and discharge in business affairs, with the sources of capital representing the amounts for which the management stewards were charged and the discharge being the assets in which the capital had been invested. A related explanation is that these amounts with which the management stewards were charged were of primary importance and were therefore listed in reading order beginning on the left. Yet another possibility is that the English chose to use the "new" sheet of balances looking to the year ahead rather than to the "old" sheet of balances portraying past results. The new balance account has been recommended as a proof of the balances in opening a new ledger, with the balances being shown reversed to offset the balances carried forward to the individual accounts in opening the new ledger.

The Pattern is Set

Whatever the reason for the "English" balance sheet, the pattern was set in 1657 after Cromwell required the East India Company of London to value its assets at particular times and publish a report thereof (ten Have 1976, 67), for the company used the English arrangement. That arrangement was also specified two hundred years later in Exhibit B of the English Companies Act of 1862, indicating the persistence of the practice, and by adding the force of law, making the practice well nigh immutable.

The East India Companies

Of prime importance in the interregnum between Pacioli and the Industrial Revolution were the chartering of the London East India Company in 1600 and the Dutch East India Company in 1602. Both represented monopolies granted to exploit the growing trade with distant regions, an activity which eventually involved sending abroad fleets of ships suitably protected against the incursions of high seas piracy, the assembling of large amounts of goods and precious metals as the basis for trading activity, and the construction of fortified settlements abroad to protect what was wrested from the local populace when the demand for goods became so strong that voluntary exchange could not be effected (ten Have 1976, 53). It is quite possible that the development of these enterprises of substantial magnitude can be attributed to the influence of the model offered by the large-scale manorial operations that were unique to England. The trading companies and the guilds in turn may have been the impetus for the development of manufacture and the Industrial Revolution, and it is likely that these developments together were what propelled England into its position of leadership in economic matters as well as in the development of accounting and auditing.

Originally, the English East India Company operated under a system of terminable joint stocks, with each voyage involving separately subscribed capital. Littleton (1933, 210) reports 113 such distinct voyages between 1600 and 1617, with the terminable arrangement continuing until 1657. The simplicity of venture accounting was fully applicable, with the assets divided among the venturers at the completion of a voyage. During this period, however, the function of the ship captain diminished from that of full responsibility for the venture including the trading activity and all accounting, to that of paid manager responsible only for the running of the ship and maintaining records of shipboard activities.

Liquidation of the capital at the end of each voyage made it possible for those who so desired to drop out, with others admitted to take their place. The result was a form of quasi-permanent capital and continuity with the attendant problems of valuing those "remains" of the voyage to be utilized in succeeding voyages: the ships themselves, warehouses at each end of the route to store the goods, and the allocation of joint administrative costs. The distribution of capital to be effected–the sum of the original capital (or what remained if the voyage was unsuccessful) plus the profits of the voyage—was apparently accepted on faith in most cases, especially if the voyage was profitable, equaling or exceeding expectations. As a joint venturer however, each venturer presumably had a right to inspect "his" books if any question arose.

Further indication of permanency was evident in 1613, when the capital called up was subscribed for four years, with one-fourth to be paid in each year for the fitting out of ships during that year, and was the first step away from the "share-in-the-goods" interest in affairs and toward the idea of capital as an invested sum represented by transferable shares of specified amount. "The bookkeeping skill of the day was unequal to the task of successfully juggling the assets and profits of a dozen distinct trading ventures in various stages of completion. The need for a policy of long-time investments was thus indicated as a prerequisite to intelligent current management." (Littleton 1933, 211)

The full scale change came about in 1657 when the company secured a new charter based on non-terminable stock to be valued initially at the end of seven years, and then every three years thereafter. On the basis of such valuation, a shareholder who wished to withdraw was entitled to have his place taken by another, and that arrangement opened the way to trading in the shares of the joint-stock company.

Trading in the shares of the Dutch East India Company began in Antwerp the year the company was formed, and shortly thereafter in Amsterdam, but did not occur in the shares of the British East India Company until the latter part of the 17th century (Shultz 1942, 1), apparently sometime after the permanent capital arrangements of the 1657 Charter became effective. The important distinction between capital and income became apparent when in 1661 the governor of the company stated that "...future distributions would consist of the profits earned (dividends) and not 'division,' as in the past." (Littleton 1933, 211)

Permanent capital was a new development, however, only in the sense that it was applied to otherwise terminable activities. Permanency of investment was a natural consequence of such longer term undertakings as Mines Royal chartered in 1568 and New River Company, chartered in 1609 to bring spring water to London by conduit (Littleton 1933, 212).

As there was no accepted definition of income, even though 19th century English statutes limited the distribution of dividends to income, differences of opinion over the matter were taken to the courts for resolution. "The courts were thus called upon to consider issues which were of importance to accounting before accounting literature (as contrasted with *bookkeeping* texts) began to appear." (Littleton 1933, 214)

The South Sea Company

Yet another major trading company was formed in 1711 to exploit trade in the South Seas and other parts of America. A secondary purpose of establishing the company was to convert the large floating debt of England into a funded debt by providing that holders of the debt could convert it into South Sea Company stock at par, with the interest paid on the company-held debt being added to the profits of the company (Hasson 1932).

Trading activities ended when war broke out with Spain in 1718 and all company property in Spanish-American ports was seized. Subsequently, the acquisition of other state debts through exchange for stock occupied the company, as well as raising funds through the floating of bonds and sale of shares of stock. Offers of exchange for the various debts began at a conversion price per share of 114 pounds sterling and rose to a maximum of 1050 pounds, supported by rumors of profit potential and large dividends, plus the paper profits of investors resulting from the increase in the speculative trading of the stock.

The bubble burst when the South Sea Company persuaded parliament to investigate other companies that had been formed, often without obtaining a charter, since these companies were competing for investment funds. At this point speculators in the various stocks began to sell, and 1720 saw the bubble burst that had been inflated earlier that year, leaving the realization that little more than air had supported the bubble. Our interest in this sordid affair is in the reference to a Mr. Snell in the title of Hasson's article, which is discussed shortly.

Reporting to Shareholders

As has been pointed out earlier, merchant traders kept their own books and referred to the books for any desired information. Although an "extra-comptable" trial balance might be prepared, or an account of balances and an account of profit and loss might appear as pages in the ledger, these were primarily to prove bookkeeping accuracy and were apparently seldom consulted for information. With the fragmentation of ownership that occurred with the inception of the East India companies however, changes were necessary. "The charter of the Dutch East India Company provided...for a 'general accounting' every ten years. But the autocratic early-capitalistic merchants brazenly ignored this. Profits (which were undefined) were distributed and that was all...(these amounted to) about 18 percent distributed annually between 1602 and 1798." (ten Have 1976, 54)

The 1657 charter of the British East India Company issued during Cromwell's protectorate required the preparation of a statement of balances (balance sheet) after seven years, and after every three years thereafter, with the statements to be available to anyone who desired to inspect them. These requirements were met, and copies of the statements exist in minutes of the company that have been preserved (Sainsbury 1925).

The trading of shares that followed the inception of "permanent" ventures was largely speculative, and although a shareholder might have the right to inspect the books, that right was seldom, if ever, exercised. Instead, trading was based largely on the prospect of profits from rising prices of the shares of stock, or perhaps in a few cases on the annual distributions of profits. In time, reliance on such periodic distributions increased as a more meaningful basis for investment, and with that increased reliance there was growth in the importance of the calculation of the profit on which the distributions were based. Likewise, consideration was given to limiting distributions to the amount of calculated profit so that investors would not be misled by capital that was paid out in the guise of profit distribution. These were, however, developments of the next milestone era and are discussed in a subsequent section.

Auditing

The earlier hearing of the accounts gave way in time to the practice of reviewing the accounts after they had been prepared, although the two approaches were sometimes carried out conjointly, as suggested by the "report" resulting from the City of Aberdeen audits, 1586-1587: "Heard, seen, considerit, caculat, and allowit by the auditors" and "futit, calculat, and endit by Auditors," which appears in another auditors' docquet (Brown 1905, 85). The latter statement is characteristic of the review of the records of manorial units by the lord's auditors, culminating in the preparation of the charge and discharge statement bearing the auditor's approval. In both situations it should be understood that the auditors were essentially officers of the person or organization for whom records had been kept and who desired assurance of the accuracy of those records.

The auditor who offers his services to the public seems to have been an outgrowth of the development of the joint-stock companies and their widely dispersed ownership, as stated by ten Have (1976, 54), "In England...an auditing system was installed by an expert to be selected by the stockholders, and out of this 'auditor' there developed later the accountant with public responsibility."

It is about this time that the Mr. Snell referred to earlier enters the scene. Hasson (1932, 128) writes that after the bursting of the South Sea bubble and the losses of millions of pounds by investors, "A parliamentary investigation resulted in the confiscation of property of many who had acted in bad faith. Charles Snell, a writing master and accountant, made a special audit and his report was published. It is interesting because it is perhaps the oldest English audit report of its kind."

Although Snell is primarily remembered for his special South Sea Company audit work, he was a writing master who also taught accounts. In this capacity, he was the author of four texts on writing and eleven on bookkeeping, one of which could also have established his place in history, for the text was entirely in verse!

The Industrial Revolution

With the concept and framework of widespread ownership of company stocks established by the British and Dutch trading companies, the way had been shown to satisfy the voracious demand for capital generated by the Industrial Revolution, generally considered to have begun about 1760 but to have reached full bloom about 1790. Important in the transition from hand crafting to mechanized production were such inventions as the spinning jenny in 1767, the cotton gin in 1792, and James Watt's steam engine in 1769, which was a marked improvement over Thomas Newcomen's engine of 1705.

Early companies formed to profit from the advantages of the use of machines in manufacture were joint-stock companies operating under charter of the crown. These companies apparently involved unlimited liability on the part of joint-stock members, but in 1825 the crown was empowered to grant charters with specific provisions regarding the liability or nonliability of members (Littleton 1933, 252). In 1844 Parliament simplified the formation of joint-stock companies by substituting registration for the formal chartering required to that time, but no provision was made for limiting the liability of stockholders for the debts of the company. However, an 1855 act of Parliament made it possible for companies registered under the 1844 act to obtain certificates of limited liability.

The Companies Act of 1862 consolidated the British law on the formation of companies, providing for limited liability and requiring that the company use "Limited" or "ltd." as the last word of the corporate name, thus opening the doors to the limited form of incorporation that is the basis for most privately organized economic activity throughout the world today.

Developments were also occurring in the United States, where the Buttonwood Tree Agreement of 1792 established a formal arrangement for the "Purchase and Sale of Public Stock" by the twenty-four brokers who signed the agreement (Shultz 1942, 2). Early trading activity was concentrated in government bonds issued to refund Revolutionary War debts and in the shares of bank stocks, supplemented later by state and city bonds issued to finance such projects as the Erie Canal, the stocks of fire and marine insurance companies, and the stocks of railroad companies. By 1837, trading was taking place in the stocks of twenty-three different companies (Shultz 1942, 5). The securities of private companies were issued under charters of incorporation granted by the states on a more available basis than the earlier English charters granted by the sovereign, but the arrangement was not unlike the registration requirements of the 1844 English Companies Act. The earliest statute for freely incorporating business enterprise was enacted by North Carolina in 1795 (Littleton 1933, 254). This and other statutes pertaining to incorporation under specified formal requirements for registration generally granted limited liability to the stockholders of all companies except banks. Usually the company was required to include "Incorporated," "Inc.", "Corporation," or "Corp." in its name to place others on notice that liability was limited.

With the advent of continuing organizations and the notion of capital as a permanent contribution as opposed to a sum to be divided and distributed at the termination of the enterprise, attention was focused on maintaining such capital intact, distributing "dividends" rather than effecting divisions of the final capital, and this to maintaining a distinction between contributed capital and the income generated therefrom, with dividends to be paid only from such income.

English Reporting Requirements

Companies were not only required to observe the above legal requirements, but to issue reports so that all concerned might be able to ascertain that the requirements had been satisfied. Thus, the reporting requirements and related auditing requirements of the English Companies Acts are especially important. The following discussion of these reporting and auditing requirements is based largely on the article by Edey (1956) and an essay by Edey and Panitpakdi in Littleton and Yamey (1956). The Joint Stock Companies Act of 1844 specified that companies must keep books of account and present a "full and fair" balance sheet at each meeting of the shareholders, such balance sheet to be filed with the Registrar of Companies. There was no requirement for submission of a profit and loss account, although 1844 legislation pertaining to banks did require the submission of a profit and loss account as well as a balance sheet. Also absent was any specification of the content or arrangement of the balance sheet, and there was no grant of power to the Registrar to enforce the reporting requirement, possibly because the disclosure of company financial information was considered to be a matter to be decided between the shareholders and the directors.

A surge of opposition to government regulation resulted in the striking of these accounting and reporting requirements in the Companies Act of 1856. The Act did include, however, as a supplement in Table B, a model set of articles of association containing exemplary clauses pertaining to the following matters:

- The payment of dividends only out of "Profits."
- The right of directors to set aside out of Profits, before recommending a dividend, sums reserved for contingencies, equalizing dividends, or repairing or maintaining the "Works connected with the Business of the Company."
- The keeping of "true Accounts...upon the Principle of Double Entry...(the accounts to be) open to the Inspection of the Shareholders during the Hours of Business."
- The requirement that the directors "...lay before the Company in General Meeting a Statement of the Income and Expenditures for the past year" and also a balance sheet to "...contain a Summary of the Property and Liabilities of the Company arranged under the Heads appearing in the Form annexed to this Table..."

It is in the balance sheet form of Table B, which is classified and with suggested captions, that we see listed on the left as "Dr." capital and liabilities and on the right under "Cr." the following items in this order: property, debts owing to the company, and cash and investments. Worthy of note from Table B is 1) that the statements are to be something more than mere copies of the sheet of balances appearing in the ledger, 2) the modern labeling of the income statement, 3) the position of the reference to the income statement ahead of the reference to the balance sheet, and 4) the retention of the idea from the earliest days of commercial activity that the account books be accessible for inspection by the owner.

The general company law was consolidated in the Companies Act of 1862, but there was no material change in the accounting provisions except to move the model articles from Table B to Table A. Subsequent attempts to reinstate mandatory provisions for accounting and publication of financial statements were unsuccessful except in the case of special legislation pertaining to banking and insurance companies, railroads, and gas and electric utilities. Company law remained essentially unchanged until 1900, which marks the beginning of the next milestone period.

Reporting Requirements in the United States

The reporting requirements of the various state incorporation statutes varied widely, although considerable similarity with English developments is evident, as for example that regulation and reporting requirements were more prevalent with respect to banks, insurance companies, railroads, and public utilities in recognition of the substantial public interest in such enterprises.

Hawkins (1963) reports that by 1900 about half of the state incorporation statutes provided for either periodic reports to stockholders or reports to be issued at the demand of the minority stockholders. Of the other statutes, some required reports to a public authority (often the office of the secretary of state, which also issued corporate charters), but such reports were generally considered to be confidential communications between the state and the corporation and not available for public inspection. In other instances little more was required than the name and residence of the agent upon whom process might be served and the names of the directors. Competition between the states to attract the lucrative incorporation fees and taxes may have accounted for the reluctance in some instances to impose requirements that might be considered burdensome or objectionable.

In the *laissez faire* economy of a developing nation, there was also much inclination to the privacy of affairs such as was prevalent during the time of the early merchant traders, and there was no tradition of financial publicity. The public was considered to have no right or interest in such confidential matters, and managers felt that revealing financial information might be of benefit to competitors (an attitude that still exists today, as indicated by business opposition to FTC line of business disclosure requirements), and there was a feeling that *caveat emptor* was as applicable to buyers of securities as to buyers of horses. As a notable exception to the general inclination toward secrecy, Bookholdt (1978, 9) notes that the railroads were one of the first businesses to have extensive investments in long-lived assets, necessitating massive amounts of outside capital, and were likewise one of the first to report on the custodianship of corporate management. He (Bookholdt 1978, 10) states that a report was issued by the Utica and Schenectady Railroad covering the period from its opening in 1836 until January 1, 1841, and that the report was partially reprinted in *Hunt's Merchants Magazine.*

Although in the U.S. a relative vacuum existed concerning government pressure for good accounting and financial reporting such as was evident in the Companies Acts, the New York Exchange sought to fill at least part of that gap. Shultz (1942) reports that the Exchange formed a Committee on Securities in 1861 that attempted to obtain information about securities on the trading list of the Exchange, and in answer to one such request in 1866 received the often quoted response, "The Delaware Lackawanna & Western R.R. Co. make no reports and publish no statements, - and have not done anything of the kind for the last five years."

In 1869 the Exchange's Committee on Stock List adopted a policy to the effect that listed companies should agree to publish an annual financial report, although few companies endeavored to follow the recommendation. The Exchange was reluctant to attempt to enforce its policy because of the possible adverse effect on its trading activities, and in 1885 created the Unlisted Department — which placed no requirements on the issuers of stock being traded – in order to attract additional stocks for trading. The first listing agreement to include the reporting requirement was signed in 1897 by the Kansas City (MO) Gas Company (Shultz 1942, 14). The Exchange was more forceful on another matter, however, when in 1869 as a result of the overissuance of shares of stock in the fight for control of the Erie Railroad, it was resolved that the shares of all active stocks should be registered at some satisfactory agency, and, when the Erie did not comply, its stock was removed from the trading list.

Developments in Accounting Theory

The displacement of the merchant trading proprietorships and terminable joint stock ventures by organizations having the prospect of continuing existence and financed by absentee owners who had limited liability for the debts of the enterprise induced a number of important accounting changes. Foremost among these was the need to chop the income stream into discrete segments in order to ascertain what dividends might be paid. Valuation of inventories, recognition of potential losses in the realization of receivables and inventories, the effect of deferred and accrued income and expense, and the limited life of the complicated machines of the Industrial Revolution all presented problems to the accountants of that day.

Although Littleton (1933) recognizes evidence of the emergence of the accrual system in a book by Savary as early as 1712, and Lee (1977, 90) notes that the Farolfi ledger of 1299-1300 contains an account "Prepaid Rent," considerable time elapsed before the methodology of adjusting for accrued and deferred items became reasonably well developed. Littleton (1933) cites a book by Pilsen in 1877 as an example.

On the whole, accruals and deferrals, inventory valuation, and depreciation were considered primarily in terms of their effect on the balance sheet. The balance sheet was the most complete statement, for it also contained the balance of the profit and loss account, it showed the accounting for the stewardship that had been placed in the hands of the company managers, and it displayed the various amounts to be taken into consideration in making a dividend distribution. In this view, what the stock of inventory would be likely to bring, and the effect of depreciation on the property listed as an asset are matters of prime importance, as suggested by a bookkeeping text by Harris published in 1842 in New York and the book by Pilsen in 1877. Bookholdt (1978, 10) quotes from *The Railway Times* (England) of 1841, "The declaration of a dividend without making allowance for depreciation of stock, cannot in our opinion be regarded as other than fallacious." Littleton (1933) reports legal cases in 1879 and 1880 that involve an allowance for depreciation in calculating profits available for dividends.

Auditing Requirements

Previously noted has been the growing importance of financial information abstracted from the books of account and used in connection with decisions by both directors and investors. Given this change, it would be expected that the center of interest for auditing would shift from the books themselves to the statements prepared from the books, although a change in audit approach would not necessarily be implied. The functioning of the auditor as an integral part of the entity being audited gives way during this change to the auditor as a practicing professional providing auditing service to clients. These professionals were also handwriting and book-keeping experts who stood ready to teach others the art of writing and bookkeeping or to assist merchants who were unable to keep their own records. Since these professionals could prepare an exemplary set of records, they could obviously determine the correctness of the records prepared by someone else, and it is out of this situation that the specialist in accounts and the auditing thereof emerges as a *public* accountant.

Prior to the Companies Act of 1844, the joint-stock company organized under a specific charter granted by the crown was subject only to such reporting and auditing requirements as were specified by the charter. With the relatively simply registration requirements to form a company set by the 1844 act, it was deemed desirable to establish certain controls over the companies so formed. Some of these controls were for the protection of investors since their relationship with the company was a relatively impersonal one.

A certificate of registration was to be issued only if the shareholders in their original agreement appointed one or more auditors. Subsequent auditors were to be appointed at the annual shareholders' meeting. The directors were required to make up a "full and fair balance-sheet," sign it, and deliver it to the auditors. Subsequently, the directors were to send a printed copy of the balance-sheet to the shareholders prior to the general meeting.

A revision of the 1844 act the next year provided that "Every auditor shall have at least one share in the undertaking; and he shall not hold office in the company, nor be in any other manner interested in its concerns, except as a shareholder." Sec. 108 of the act provided for the employment of outside experts by the shareholder-auditors:

> It shall be lawful for the auditors to employ such accountants and other persons as they may think proper, at the expense of the company, and they shall either make a special report on the said accounts, or simply confirm the same; and such report or confirmation shall be read together with the report of the directors at the ordinary meeting.

The stated provision is reminiscent of the earlier English situation when the lord of the manor would hear the audited accounts of his stewards. As in the earlier day, the typical audit consisted largely of ascertaining that a supporting voucher existed for every payment, marking those vouchers and the corresponding entries to show that they had been audited, proving the accuracy of the bookkeeping, and ascertaining that the directors' balance sheet agreed with the balances in the ledger (Littleton 1933, 290).

The Companies Act of 1856 and the consolidating Act of 1862 which replaced it included essentially the same audit provisions as the 1844 act, but they appeared only in Table A accompanying the act that set forth the model set of bylaws. An important addition to the wording of the earlier act was that the auditors were to report "whether in their opinion the balance-sheet is a full and fair balance-sheet containing the 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."

The 1862 act was the last act of that century of general significance, and at this point attention is directed to auditing developments in the United States.

U.S. incorporation statutes made no reference to required audits, and hence auditing developed purely as a service activity, available to those who sought such services. Most early audit activity in the United States was by English accountants sent here to look after the interests of English companies that had established operations in the colonies. These visits were in circumstances not unlike the audits for the lord of the manor at the location of his various lands. Bankruptcies were, however, another matter, and often the visits by the English accountants were in connection with the winding up of the affairs of unsuccessful English companies which had invested in operations in the States, or unsuccessful U.S. corporations in which the English had invested.

Richard Brown (1905, 198) mentions the commercial crisis in Glasgow in 1777 that resulted from the revolt of colonies in America and the close relationship of Glasgow to trading in that part of the world, suggesting that accountants may have been involved in visits to America even in that early day.

Professional Development

City directories help to pinpoint the entry of accountants into public practice. The following counts of listings of accountants in English directories selected from Littleton's tabulations (1933, 269) suggest the timing and scope of this emergence:

City	Year	Accountant Listings
Edinburgh	1773	7
London	1776	1
Glasgow	1783	6
London	1820	44
Edinburgh	1821	58
London	1840	107

The first issue of *The New York Directory* in 1786 contained an accountant listing according to Edwards (1960, 44), and he states that there were fourteen accountant listings in the 1850 edition of that directory and thirty-one in 1880. The Philadelphia directory for 1850 contained four listings, and the Chicago directory for 1865 listed only two names (Edwards 1960, 46).

Edwards (1960, 48-9) mentions the formation of the firm Veysey and Veysey in New York in 1866 by the Englishman William H. Veysey. The firm Barrow, Wade, Guthrie and Company was established in New York in 1883 after Guthrie had come to the U.S. as receiver for a bankrupt financial concern in England. Guthrie's firm was apparently the first to accept engagements in other locations, and hence the first "national" firm. The English firm of Price Waterhouse & Co. undertook work in the U.S. as early as 1863, and in 1890 opened an office in New York (Edwards 1960, 50). Edwards also mentions security offerings in the *New York Times* in 1890 that contained an indication that the accounts had been certified by Price Waterhouse & Co.

With the appearance of public accountants, organization of societies for the mutual benefit of the members and advancement of the profession could be expected to follow, and such has been the case. The first steps toward formation of The Society of Accountants in Edinburgh were taken in 1853, and the Royal Warrant for incorporation was given in 1854. The Incorporated Society of Liverpool Accountants was formed in 1870, and shortly thereafter in that year the Institute of Accountants in

London was formed. As an outgrowth of these activities, The Institute of Chartered Accountants in England and Wales was granted a charter of incorporation in 1880.

The Scottish and English societies were responsible for the publication of the first accounting periodicals. The Society of Accountants in England, formed in 1873 and one of the several forerunners of the Institute of Chartered Accountants, began publishing *The Accountant* in 1874 as a monthly newspaper that was shortly changed to weekly publication and has continued on that basis (Brown 1905, 245). The Scottish societies joined together to begin publishing *The Accountants' Magazine* in 1897 on a monthly basis.

Outside this "cradle of the accounting profession," The Association of Accountants in Montreal was incorporated under the statutes of the province of Quebec in 1880, The Institute of Chartered Accountants of Ontario was incorporated by an act of the legislature of the province of Ontario in 1883, and the Canadian Institute of Chartered Accountants was incorporated by an act of Parliament in 1902 (International Practice Executive Committee 1975, 110). In the United States, the American Association of Public Accountants was incorporated under the laws of the state of New York in 1887. The Association was instrumental in obtaining the first CPA law in the United States, passed by the state of New York in 1896. Certificates recognizing qualified candidates as certified public accountants were authorized to be issued by the Board of Regents of the University of New York.

Textbooks on auditing also made their appearance during the period under consideration, and as with the earlier textbooks on accounting, they were written by practitioners to assist in teaching the art to others. *Auditors, Their Duties and Responsibilities* by F. W. Pixley was published in London in 1881, and *Auditing* by Lawrence R. Dicksee of the London firm of Price and Dicksee was published in 1892. Although the next book of interest was not published until the next milestone period, it is mentioned here because of its association with the Dicksee text. Robert H. Montgomery (1939) prepared an American Edition of Dicksee's *Auditing* that was published in 1905, and his own *Auditing Theory and Practice* fully reflecting U.S. practices was published in 1912.

1900-1930: Accounting and Auditing Come of Age

The seeds of accounting, planted when writing was developed to keep records, germinated during the merchant trader era of Pacioli's time, emerged during the period of the Industrial Revolution, and reached their final stages of development by the time of the Great Depression.

Industrial activity outgrew the limitations of the simple corporate form developed to accommodate the demands of the Industrial Revolution, just as extensive merchant and foreign trade activity outgrew the limitations of the sole proprietorship. The scene of major developmental activity that had shifted from Italy to England shifted once again–this time to the United States, which by 1900 was revealed to be an awakening industrial giant that had hitherto gone relatively unnoticed.

Notable among the many developments of the post-1900 period was the merger movement to form giant industrial complexes–often for the purposes of gaining monopolistic control over a major group of products. Mega-corporations created during this period included United States Steel, General Motors, and International Harvester Company.

Beginning about the turn of the century, the pace of all development increased rapidly, with accounting and auditing sharing in that increased pace. Accounting became recognized as an essential tool of successful industrial management and as the source of information which could serve as the basis for more rational credit and investment decisions. Auditing, as a companion activity, was seen to be vital as a means of assuring the reliability of the reported financial data used by all parties who were external to the business organizations whose affairs were of interest to them.

With the above brief introduction, the discussion considers some highlights of the many developments that occurred within this milestone period.

Accounting Theory

During this period the focal point of accounting slowly but inexorably shifted from the balance sheet to the income statement. The offering of securities to finance the voracious demand for capital brought a realization that the important question was not the legality of dividends in terms of their source (whether they were paid from profits or by a return of invested capital), but rather the annual amounts of that source - the profits generated by operations. Littleton (1953, 22) asserts in his *Structure of Accounting Theory* that the determination of income is the central purpose of accounting and offers the hypothesis "That the extensive need for dependable determination of periodic net income makes the income statement the most important product of enterprise accounting." Similarly, Sanders, Hatfield, and Moore (1938, 1) begin their landmark work *A Statement of Accounting Principles* with the observation that "The distinction between capital and income...is fundamental in accounting."

In addition to the interest of investors and theorists in the determination of income, the appearance of a tax on the income of individuals and corporations in the United States in 1913 made believers of any who had not yet recognized that the determination of income was of signal importance.

Attendant questions that had to be faced and resolved were the distinction between capital and revenue charges - whether expenditures resulted in additions to the capital assets of the business or were directly related to the generation of current revenues and to be charged against those revenues. Accounting for the allocation of capital costs to the revenue generated in the form of depreciation charges and the allocation of the cost of goods purchased to inventory and cost of goods sold were matters of particular importance. Merger activity and the appearance of holding companies and parent/subsidiary relationships introduced questions about the determination of income on a consolidated basis and the presentation of consolidated financial condition.

Internally, efforts by management to control the escalating costs of production led to the development of cost accounting, which also had important implications for income determination through inventory costs. Meaningful determination of production costs on a job or process basis involved questions of cost allocation, predetermined burden rates, and estimated and standard costs.

Internal control (internal check as it was called in those days) also increased in importance as management became separated from the control of liquid assets and their attendant inflows and outflows, as well as from all other aspects of operations. Interest in this aspect of management was, of course, simply an extension of the question of maintaining control by management in the face of separation from the site of day-to-day operations as experienced by the lords in the English manorial system. Interestingly, there is little indication of management interest in internal control; the principal interest was indirect in the form of references to the subject in the auditing literature, where it was recognized that when it existed, internal control could simplify and reduce the auditor's testing of the records.

Financial Reporting

As the nineteenth century drew to a close matters were stirring in the area of financial reporting in both England and the United States. In England, 1900 marked the end of the swing away from government regulation instituted with the Companies Act of 1856. The Companies Act of 1900 made an annual audit obligatory for all registered companies, and by implication imposed an obligation to prepare an annual balance sheet (Edey and Panitpakdi 1956, 371). Although there was growing interest in requiring that "annual accounts" be prepared, such a requirement was not introduced until the Companies Act of 1907. One of the reasons for hesitancy over requiring compulsory filing of annual accounts with the Registrar of Companies was reticence about making generally available through such filings information about what were essentially family businesses operating in corporate form. These "private" companies were subsequently exempted from the filing requirements of the 1907 act (Edey and Panitpakdi 1956, 372). The 1907 act also provided that any shareholder should be entitled to obtain, upon payment, a copy of every audited balance sheet laid before the general meeting of the company, and extended the same right to debenture holders except in the case of private companies.

The Companies Act of 1929 contained a provision requiring for the first time that an annual profit and loss account as well as a balance sheet be laid before the company in general meeting. However, only the balance sheet was required to be filed with the Registrar, and thus the profit and loss account remained restricted information. Also required was disclosure in the prospectus for a new stock issue of a report by a company's auditors of the past profits and dividends of the company and on the past profits of any business to be acquired. The act also defined a holding company and required disclosure of the manner in which profits and losses of subsidiaries were accounted for, but did not require disclosure of the amount of such profits (Edey 1956, 141).

Developments in the United States

The growth of public ownership of industrial corporations is perhaps best indicated by figures reported by Hawkins (1963, 256). He reports an estimated 500,000 corporate stockholders in 1900, 2,000,000 in 1920, and 10,000,000 in 1930. The interests of stockholders and others were recognized as early as 1900 in the *Preliminary Report of the Industrial Commission on Trusts and Industrial Combinations* (1900, 6), which made recommendations that did not become realities until some thirty years later:

> The larger corporations–the so-called trusts–should be required to publish annually a properly audited report, showing in reasonable detail their assets and liabilities, with profit or loss; such report and audit under oath to be subject to Government inspection. The purpose of such publicity is to encourage competition when profits become excessive, thus protecting consumers against too high prices and to guard the interests of employees by a knowledge of the financial condition of the business in which they are employed.

A major obstacle to financial disclosure requirements was the fear referred to previously that disclosure of information considered to be confidential could be detrimental through providing helpful information to competitors. This attitude toward confidentiality may also be traced back to the days of the merchant trader, when the information memorialized in his books of account was accepted as being for his use and for his use alone. Consequently, managers believed that the public had no right of access to information on such matters, and some cavalier managers even failed to perceive any real difference between the general public and those members of the public who had provided capital for the business enterprise in question. As mentioned earlier, the doctrine of caveat emptor seemed to apply to securities as well as to tangible items of property and to relieve managers from any responsibility for disclosure.

In marked contrast to these views was the announced decision of United States Steel Corporation to present comprehensive financial information to its stockholders, as exemplified by the thirty-five page report presented at the first annual meeting of its stockholders in 1902. The condensed general balance sheet in this report was audited by Price Waterhouse & Co., the auditors reporting the statement to have been "Audited and found correct" (Previts and Merino 1979, 176). In issuing the report, Judge Gary, Steel's first president, stated "Corporations cannot work on a principle of locked doors and shut lips" (Griedinger 1950, 4). At the same time and reflecting the prevailing view, McLaren (1947, 5) states that between 1897 and 1905, Westinghouse Electric and Manufacturing Company neither published an annual report nor held an annual meeting.

The New York Stock Exchange was a significant force seeking to obtain financial disclosure, although in a discussion of the activities and developments of the Exchange, Hawkins states that the threat of government regulation was a motivating force behind some of the Exchange's actions. Hawkins also points out that beginning with the Exchange's policy set in 1869 that listed companies should agree to publish an annual financial report, and the first inclusion of such a requirement in the listing agreement with Kansas City Gas Company in 1897, all new listing agreements thereafter were to include such a provision. Its Unlisted Department was created, however, to permit trading in stocks not subject to the reporting requirements of the Exchange's listed stocks, but the department was abolished in 1910. Therefore, the Exchange actively sought to improve the reporting practices of its listed companies. Noteworthy in this regard was the agreement by General Motors in 1916 to publish semiannually a consolidated income statement and balance sheet. In 1924 Inland Steel Company agreed to issue quarterly statements of earnings, and two years later the Exchange officially recommended the publication of quarterly reports by all listed companies.

Most such requirements were by individual agreement with the companies, and Hawkins reports the following status of these agreements in 1926 with respect to the 957 listed companies:

242	making quarterly reports
79	reporting semiannually
339	issuing annual reports
297	no agreements with respect to the issuance of financial statements

The Investment Bankers Association of America encouraged minimum standards for financial disclosures in prospectuses, but the Association had no leverage by which to gain acceptance of its recommendations, and many investment bankers apparently preferred to continue the nineteenth century practice of selling securities on the sole basis of the investment banker's reputation rather than on the merits of the security issue itself (Hawkins 1963).

Auditing Requirements

The Companies Act of 1900 made an annual audit obligatory for all registered companies, the intention of this provision apparently being to assure such audits for the protection of shareholders. The auditors were required to sign a certificate at the foot of the balance sheet stating whether or not all of their requirements as auditors had been met and to make a report to shareholders on the accounts that had been examined and on every balance sheet laid before the general meeting during their tenure of office (Edey 1956).

The Companies Act of 1907 required that an audited balance sheet be filed with the Registrar of Companies. The auditor's report was to state whether the balance sheet was a "true and correct view of the state of the company's affairs," and the auditors were to state whether the balance sheet was presented "according to the best of their information and the explanations given to them, and as shown by the books of the company" (Edey 1956). The act also required that no new auditor might be appointed without due notice of intention to nominate the auditor being given to the company by a shareholder. The company had in turn to give due notice of such intention to all shareholders and to the retiring auditor.

The Companies Act of 1928 required not only the disclosure of past profits in connection with a prospectus, but also a report by the auditor on those figures. Although the act also required that a profit and loss account be laid before the company in general meeting, there was no requirement that the profit and loss account be audited (other than as an element of the shareholders' year-end equity) and confidentiality was maintained in that the profit and loss account did not have to be filed with the Registrar of Companies. The act also stated that the auditors were to be allowed to attend the general meeting at which the audited accounts were presented and to make any statement about the accounts that they desired.

In the United States, the main pressure for independent audits of financial statements came from the New York Stock Exchange. May (1926, 322) reports that by 1926 most listed companies had adopted the practice encouraged by the Exchange of issuing annual reports covered by the opinion certificate of an independent auditor. It was not until 1933, however, that the audit requirement was made mandatory by the Exchange.

Auditing Practice Developments

Audit emphasis continued on bookkeeping accuracy and agreement of financial statements with the books, with the detection of any fraud in the accounts a major auditing concern. Training of auditors was primarily on the job, but books by practitioners describing auditing practice made their appearance in the United States, following the lead in England. Robert H. Montgomery of Lybrand, Ross Bros. & Montgomery (now Coopers & Lybrand) prepared an American edition of Dicksee's *Auditing* published in 1905, but Montgomery concluded that sufficient differences in terms of the amount of audit work being done in the United States justified writing his own book, and his *Auditing Theory and Practice* was published in 1912 (Montgomery, 1939). Reflecting the changes occurring in his own book, Montgomery (1939, 91) quotes from a *Journal of Accountancy* review of the second edition in 1916: "It is evident that the day of the old system of 'holler and tick' (as graphically epitomized by a late revered leader of the profession) is passing rapidly. It is not enough for the modern auditor to check, verify and state that the accounts are correct. He must be able to tell the connected and lucid story revealed to him by the figures; in other words, he has become, or should become if he thoroughly grasps the principles of auditing expounded in this book, a translator, or better, an interpreter."

Other important books by practitioners were *Principles of Auditing* by John R. Wildman of Haskins & Sells, published in 1916, and *Auditing* by William H. Bell of the same firm, published in 1924. Other books published about that time and written by men who were as much teachers as they were practitioners were Auditing by Eric

L. Kohler and Paul W. Pettengill published in 1924 and *Auditing Procedure* by Dewitt Eggleston published in 1926.

The use of testing, or sampling, rather than complete inspection of all entries began to make its appearance in the last decade of the nineteenth century in both England and the U.S., but rapidly became widely accepted with the increasing size of business concerns, especially the giant corporations formed as a result of the extensive period of merger activity at the turn of the century (Brown 1962, 698). The 1892 edition of Dicksee's *Auditing,* however, includes no mention of testing in the tracing or vouching of transactions, although Brown (1962, 698) cites the London and General Bank case of 1895 as approving the notion of sample selection of items for detailed examination when there is nothing to excite suspicion.

Dicksee is equally silent on internal check, but in the 1905 American edition of Dicksee, Montgomery states that a proper system of internal check will frequently obviate making a detailed audit of all transactions.

The suggestion that the auditor might wish to go beyond the books themselves and supporting documents appears as early as 1882 in G. P. Greer's *Science of Accounts,* where he refers to seeking proof outside the books that the balances shown in debtor and creditor accounts are correct (Moyer 1951, 4).

Professional Developments

The English professional associations had reached their essentially final form by 1900, but much change was still evident in the United States. The American Association of Public Accountants, formed in 1887, became the American Institute of Accountants in 1917, but continued to admit both CPA's and non-CPA's to membership until 1937. In 1905, the Association began publication of the *Journal of Accountancy,* and in 1916 formed its Board of Examiners, which was charged with the responsibility for preparing an examination to be used in evaluating applicants for membership in the Association, in much the same manner as in England. The first examination in 1917 and succeeding examinations were also offered to state boards of accountancy for use as the examination for the CPA certificate, with the encouragement that state candidates who passed the Board examination would automatically be admitted to membership in the by then American Institute of Accountants. The first examination was offered in seven states (CPA Examination Appraisal Commission 1961, 1). The Commission's report (1961, 71) states that by 1926 thirty states were using the uniform examination prepared by the Board of Examiners.

As a result of the introduction of CPA legislation and the administration of either state or Institute Board of Examiners examinations, the Commission on Standards of Education and Experience for Certified Public Accountants (1956, 5) reported the following estimated numbers of CPA's:

1900	243
1920	4,997
1930	13,560

Accounting education at the collegiate level in the United States also developed during this period. The Wharton School of Finance and Commerce was founded prior to the period under study, in 1881, and the School of Commerce, Accounts and Finance of New York University was founded in 1900. The formation of both schools was closely tied to the developing accounting profession, and accounting was the veritable backbone of these schools (Stettler , 1979). Other schools also developed, and by 1926 there were 60 schools that recognized an accounting major for the baccalaureate degree and 30 schools that accepted credit in accounting courses for the masters degree. These schools offered a total of 106 courses in auditing, and 335 courses in accounting (Stettler 1979).

During this period a number of highly regarded university professors began exploring the logic and theory underlying accounting practices and writing on this subject. Especially notable in this regard during this period were William Morse Cole and Henry Rand Hatfield. Montgomery, in his *Auditing Theory and Practice,* dealt extensively with accounting matters, as auditors came to realize that a fair presentation of a company's affairs depended heavily on how transactions were treated in the accounts, the reasonableness of estimates and other year-end determinations that had to be made, and the manner in which information was presented in the financial statements.

Similar concerns were reflected in a project undertaken by the American Institute of Accountants at the behest of the Federal Trade Commission, which in the course of its investigations of business matters had become concerned about the lack of uniformity of balance sheet audits and financial reporting (Hawkins 1963). A report of recommendations prepared by an Institute committee chaired by George O. May received the approval of the Commission, and presumably to give the report wider acceptance by the banking community, was published by the Federal Reserve Board in 1917 under the title *Uniform Accounting.* The pamphlet was reissued in 1918 under the more descriptive title *Approved Methods for the Preparation of Balance Sheet Statements.*

Despite the balance sheet accounting orientation of the title, much of the pamphlet related to the conduct of audits and covered the audit of the income statement as well as the balance sheet. The pamphlet also included suggested forms for comparative balance sheets and income statements.

The major concern of the Federal Reserve Board in improving the usefulness and reliability of financial statements submitted in support of applications for bank credit is suggested by the Institute's revision of the original pamphlet. The revision was published by the Board in 1929 under the title *Verification of Financial Statements,* the new title indicating the emphasis of the revised pamphlet on auditing.

1930 to the Present Date - Continued Growth and Maturation

The Great Depression brought a rude awakening to all segments of the highly interrelated world-wide economy that had evolved. A consequence of this experience was the realization that in addition to outright speculation, one of the factors that led to the runup of prices in the stock market (at least in the United States) related to the financial information used in making investment decisions. Although there were many examples of both good and bad reporting, attention was concentrated on the situations where the financial information reported was inadequate, incomplete, or downright misleading. An important contributing factor in this situation was the still prevailing philosophy that financial information was essentially confidential and likely to be of more value to competitors than to investors or creditors.

Yet, despite this natural reluctance and resistance, recognition of the importance and usefulness of historical financial information has resulted in continuing advances and improvements in financial accounting and the related reporting and disclosure practices. Government influence on behalf of the investing public has played an important part in these advances; sometimes through overt action, and other times through pressure backed by the threat of overt action.

These accounting problems were further compounded by the increasing complexity of business financing and operations, as well as innovative methods of financing developed to obtain needed capital funds. Some financing and accounting schemes were developed with the accompanying objective of presenting company affairs in a highly favorable manner, as the results would be viewed by the financial community. These efforts directed toward the appearance of financial soundness and operating results were based on the recognition that reported financial information was playing an increasingly important role in financial analysis as a basis for investment and credit decisions.

The focal point in this final section on the historical development of accounting and auditing shifts almost entirely from England to the United States. Not only does the U.S. represent the environment within which this account is being written, but England with its earlier start and premier position seemed to have reached a point of relative maturity and willingness to accept things as they were. As a consequence, the U.S. with its vigorous and highly competitive economy became the hub for change, but before proceeding to the developments that occurred there, one major development in England demands attention.

The Companies Acts of 1947-8 and 1967

The foundation for the 1947 act was laid by the Cohen Committee on Company Law Amendment, which in its 1945 report (as quoted by Edey 1956) stated:

> We consider that the profit and loss account is as important as, if not more important than, the balance sheet, since the trend of profits is the best indication of the prosperity of the company, and the value of the assets depends largely on the maintenance of the business as a going concern.

As a consequence of this concern, the act of 1947 specified in considerable detail the content of the profit and loss statement as well as the balance sheet and required holding companies to prepare group accounts. All such statements were to be audited and filed with the Registrar of Companies and hence became public information.

An important new provision of the 1947 act was to limit the persons eligible for appointment as auditors to "a member of any body membership of which has been designated by the Board of Trade as qualifying its members to audit the accounts of companies" or to persons "designated by the Board of Trade as qualified to audit the accounts of companies." The act also defined a "private company" and exempted such companies from the above limitation on the auditors eligible for appointment, but the exemption was removed by the 1967 act.

The 1948 act also changed the formerly specified wording of the auditor's report that the company's statements were "true and correct" to "full and fair," but the requirement was retained that the report should state whether the statements are in agreement with the books of account (Hein 1978, 78, 138, 157, 176).

Private Sector Action in the U.S.

Although a primary objective of publishing *Uniform Accounting* was to encourage banks to insist on audited statements prepared in conformity with the recommendations of the pamphlet, Hawkins (1963, 268) states that banks were reluctant to insist on audited statements for their customers out of the fear that doing so would cause customers to go to other banks that were more lenient, thus acting in accordance with a creditors' version of Gresham's Law. Business managers were equally reluctant to disclose the amount of information prescribed by *Uniform Accounting*. Nevertheless, by 1926 George O. May (322) was able to state that it had become almost universal among prominent industrial companies to have audits (and presumably to make the disclosures called for by *Uniform Accounting* and its subsequent revisions).

The stock market crash of 1929 and the resultant urgings of May and J.M.B. Hoxsey, the executive assistant on stock list of the New York Stock Exchange, resulted in the appointment of an American Institute committee in 1930 to cooperate with the Exchange in consideration of problems of common interest to investors (Hawkins 1963, 269). This committee was chaired by May, and understandably considered views that May had expressed earlier. One of these was that the time had come for the American Institute to render a higher service to the community by bringing about the adoption of the disclosure standards of the English Companies Acts. May did not favor the direct legislative approach, however, and instead championed cooperative efforts with other interested groups, such as the stock exchange.

The report of May's committee was published in 1933 under the title *Audits of Corporate Accounts,* and included among the recommendations for the universal adoption of certain broad principles of accounting was a belief that May continued to hold that there should be no restrictions on the right of corporations to select the methods of accounting deemed by them to be best adapted to their business, but that corporations should disclose the accounting principles that they had elected to follow. As a result of the committee's report, the Exchange announced on January 6, 1933 that henceforth corporations seeking listing must submit financial statements audited by independent public accountants, and that all future reports to stockholders must likewise be audited (Hawkins 1963).

In general, however, there was no power to force reforms on those who opposed them, but that deficiency was remedied by the Securities Act of 1933 and the Securities Exchange Act of 1934. Early in 1933, President Roosevelt had requested Congress to enact a federal securities bill that would supplement the doctrine of *caveat emptor* by requiring the *issuer* of securities also to beware–of the consequences of failure to fully and fairly disclose all information that would be essential to the distribution of securities sold in interstate commerce. The 1933 act pertaining to the issuance of securities (stocks or bonds) and the 1934 act pertaining to securities traded on the organized exchanges were the result.

The Securities and Exchange Commission, created by the 1934 act to administer both acts, was given broad authority to state and enforce accounting rules for registered companies and to require that the reports be audited. When the 1933 act was under consideration, the Congress was persuaded, largely through the testimony of George O. May and Col. A. H. Carter, President of the New York Society of Certified Public Accountants, that financial statements relating to a proposed issue of securities should be audited and that the public accounting profession rather than government auditors should most logically be designated to provide the audits quickly and economically. Accordingly, the 1933 act gave the Federal Trade Commission authority to require the certification of financial statements to be filed with the Commission, and similar authority was included in the 1934 act (Rappaport 1972, see chapter 1, p. 5 and chapter 8). Subsequent regulations of the SEC (created by the 1934 Securities Exchange Act) implementing this requirement provided only that the certifying accountant must be *independent;* there has been no regulatory reference to the professional qualifications of the certifying accountant.

Numerous disclosure requirements have, however, been specified in great detail in the registration and reporting forms required to be submitted to the SEC, and in the related *Regulation S-X* governing the preparation and submission of those forms. In addition, various accounting and auditing matters have been covered in an increasingly frequent stream of *Accounting Series Releases.*

American Institute Activities

Somewhat paralleling the activity generated by the securities acts has been the ever-widening scope of the activities resulting from the voluntary assumption of professional responsibility by the American Institute of Accountants which as a result of restricting membership to Certified Public Accountants beginning in 1936, changed its name in 1957 to American Institute of Certified Public Accountants to more clearly identify its membership and professional concerns.

In response to the formal adoption by the Institute of the recommendations of its Special Committee on Cooperation with Stock Exchanges, *Verification of Financial Statements* was revised and published, this time by the Institute itself, in 1936. To more accurately reflect the absence of certitude inherent in both the accounting underlying the preparation of financial statements and in the process leading to the auditor's professional report on the statements, the revision was entitled *Examination of Financial Statements.* Another important response was to constitute in 1939 a continuing Committee on Accounting Procedure which was to deal with accounting problems in an effort "to narrow areas of difference and inconsistency in accounting practices, and to further the development and recognition of generally accepted accounting principles."

During the period of its existence, the committee issued a series of fifty-one *Accounting Research Bulletins* until 1959, when it was supplanted by the Institute's Accounting Principles Board. The new Board was created to give the Institute's accounting rulemaking body broader representation, and through an extensive research program, hopefully to gather more widespread support for its efforts to identify acceptable accounting principles and further narrow areas of difference. The resulting pronouncements by the Board were thirty-one *Opinions of the Accounting Principles Board* and four *Statements of the Accounting Principles Board.*

The most recent development reflected the reemergence of many of the problems of the Committee on Accounting Procedure, including dissatisfaction with the progress being made and dissension over the positions taken in some of the pronouncements. Such dissension frequently reflected the complaints of "those whose ox was being gored." In recognition of the renewed disenchantment with the Institute's accounting rulemaking machinery, the Institute appointed, under the chairmanship of former SEC Commissioner Francis M. Wheat, a blue-ribbon group to study the means of establishing accounting principles. The report of this group, which became know as the Wheat Report, resulted in the formation of the independent Financial Accounting Foundation in 1972. The Foundation was to be supported by financial contributions from all segments of the accounting profession, including recognized professional associations of accountants, and financial executives and analysts in industry and education. The trustees of the Foundation were empowered to appoint the seven full-time, adequately compensated members of the Financial Accounting Standards Board. This Board was charged with directing the investigation and research that would serve as the basis for the issuance of *Statements of Financial Accounting Standards* after full and open consideration of underlying issues and the opinions of all interested parties. The euphoria that greeted the launching of the APB was repeated in the case of the FASB, but the seas encountered have been equally stormy and some of the same disenchantment has arisen – tempered only by the realization that this is probably the final opportunity to retain the responsibility for the determination of accounting principles in the "private sector."

Auditing Developments

The pace of change in auditing has been equally as rapid as in accounting in this period beginning with the 1930's. The auditor's report in the U.S. changed from wording that stated that an audit had been made and "I certify that in my opinion" that the statements had been properly prepared, to the form that has become today's standard. A major change was first proposed in the Institute pamphlet *Audits of Corporate Accounts* issued in 1934. The first paragraph of the report referred to the scope of the auditor's *examination* (rather than audit), including a statement indicating that testing was employed rather than the traditional detailed audit of transactions. The second paragraph stated the auditor's opinion as to whether the statements "fairly present," "financial position and results of operations," in accordance with "accepted principles of accounting consistently maintained."

A 1939 modification set forth in *Extensions of Auditing Procedure* issued by the Institute as a consequence of the monumental fraud perpetrated within McKesson & Robbins, Incorporated, added a phrase indicating that the auditor had reviewed the client's system of internal control and another phrase that stated (if such was the case) that the auditor's examination had been made "by methods and to the extent we deemed appropriate." As a further aftermath of the McKesson case, SEC *Regulation S-X* in 1941 required that the "accountant's certificate" must state "whether the audit was made in accordance with generally accepted auditing standards."

Various other modifications in the auditor report followed, all of which are fully recounted in the paper by Carmichael and Winters (1982) in Auditing Symposium VI. The most recent major revision in the standard form of auditor's report was introduced in 1988 by *Statement on Auditing Standards No. 58.*

In the 1920's, American auditing had changed from the British preoccupation with the detection of fraud and accounting errors to a primary concern for whether the financial statements fairly presented the financial condition and earnings of an enterprise. Also, the increasing size and activity of major business enterprises had led to the introduction of testing, and subsequently a recognition that the amount of such testing should appropriately depend on the internal check (now internal control) present within the client's accounting system (Brown 1962).

As a direct result of the McKesson & Robbins fraud, the American Institute membership voted to require that audits intended to result in the expression of a favorable opinion on a concern's financial statements must include confirmation of receivables by correspondence with the concern's debtors and observation of the client's physical inventory taking. The 1939 pamphlet *Extensions of Auditing Procedure* was the vehicle for publishing these new requirements and became the first of a series of *Statements on Auditing Procedure* to be issued by a newly formed Institute Committee on Auditing Procedure charged with recommending any needed changes in auditing procedure. Through its life the committee, which paralleled the Committee on Accounting Procedure formed about the same time, issued a total of fifty-four such statements, including a codification of the statements in 1963 organized around its 1954 publication *Generally Accepted Auditing Standards.* The latter publication was a direct result of the need to delineate the standards after the SEC required the auditor's certificate to state whether an examination had been made in accordance with such standards.

In 1973 the Committee on Auditing Procedure was supplanted by the Auditing Standards Executive Committee. The new committee continued essentially the same activities as its predecessors, but its pronouncements have been published as

Statements on Auditing Standards. In 1978 the committee was modified slightly in structure and renamed the Auditing Standards Board to indicate more clearly its function and to parallel the title of its by then independent counterpart, the Financial Accounting Standards Board.

Other developments related to the matter of auditing standards include changes made at the time of the extensive restatement of the AICPA Code of Professional Ethics adopted by the Institute membership in 1973. Especially worthy of note is a new Code section "Competence and Technical Standards" that requires members to comply with (1) the general standards of practice stated in the Code, and (2) in audit engagements to comply with generally accepted auditing standards promulgated by the Institute, as well as with generally accepted accounting principles promulgated by any body designated by the Council of the Institute (currently the Financial Accounting Standards Board), unless financial statements would thereby be made misleading.

Somewhat parallel developments with respect to standards were also occurring in England, although at a later point in time. In 1942 the Taxation and Financial Relations Committee of the Institute of Chartered Accountants began preparing a series of "Recommendations on Accounting Principles" which were submitted to the Institute's Council for approval. Once approved and published, the recommendations became guides as to what was regarded as preferred practice, but the recommendations were not binding on Institute members. After the committee had issued 15 such recommendations by 1953, the function of preparing the recommendations was transferred to the Research and Publications Committee. In 1970 the Institute formed the Accounting Standards Steering Committee to prepare "Statements of Standard Accounting Practice." Members of the Institute were expected to abide by these standards after their formal adoption (Benston 1976, 30-33).

With respect to auditing practice, prior to 1960 the Institute Council "...felt that official guidance on auditing would be an improper intrusion into the sphere of the auditor's professional judgment" (Zeff 1972, 26). However, this attitude gave way to a position similar to that of the AICPA in the U.S., and in 1960 the Council began issuing "Statements on Auditing" as a continuing series.

Reflected in both U.S. and U.K. auditing practice and in the official pronouncements of the professional bodies of both countries were a number of important changes which are enumerated below and listed in the approximate sequence of their occurrence:

1. Displacement of the detailed audit by one utilizing testing.
2. Increase in reference to external evidence in support of financial statement figures, rather than relying solely on verifying the recording of transactions and related supporting vouchers.
3. Recognition of the importance of internal check and control in generating reliable accounting records and as a basis for determining the extent of auditing testing of supporting evidence.
4. The use of statistical techniques in setting sample size based on a quantification of the reliability and precision desired from the testing process.

These developments, in what is generally referred to as commercial auditing, are directly related to the constant growth in the magnitude and complexity of the enterprises subject to audit. Similar organizational growth was occurring in the government sector. A concomitant of such growth in both the private and government sectors was to force managers and legislators to place increasing reliance on reports of finances and operations for the units with which they were concerned. To provide assurance of the representativeness and accuracy of such reports, internal or intra-organizational audits of the reports and underlying accounting processes were introduced by most large private and public organizations. Subsequently, some of the more aggressive service-oriented audit groups recognized other opportunities to assist management in the exercise of control, and there emerged an audit function that was broadly concerned with all organizational activities. Analyses, appraisals, and recommendations concerning efficiency and operating controls were typical outputs of such service-oriented comprehensive audits. In the government sector, where the discipline of the marketplace and the profit motive were lacking, yet another audit function emerged: appraising the effectiveness of the programs developed by the various agencies being funded by the legislative body (Churchill et al. 1977).

Although such expanded audit activity invariably retained the fundamental concern with the appropriateness and accuracy of reported financial information, emphasis on the performance of the unit being audited in terms of efficiency and effectiveness rapidly became the primary concern of these comprehensive intra-organizational audits. Largely responsible for this shift in emphasis were the constructive benefits of the performance audit, in contrast to the passive benefits of audit activity directed only to the propriety of financial reports.

Professional Developments

The U.S. profession continued to grow at a rapid rate, with the long-term growth rate in the number of CPA's estimated to be about six percent per year (Stettler 1968). The large CPA firms continued to grow in size nationally, and the largest firms became international in scope. A 1960 *Fortune Magazine* article by T. A. Wise originated the appellation "Big Eight" (now the "Big Six") to designate the largest of these.

Preparation for entrance into the profession also underwent substantial change. From the earliest days, training was accomplished "on the job," or under tutelage of practicing members of the profession. As some indication of that state of affairs, Webster (1938) reports that of the 7,371 CPA candidates in the state of New York in the years 1929-1934, only 604 held a college degree. By 1953 the situation had changed to where the American Institute reported that 74 percent of the candidates were college graduates (Commission on Standards of Education and Experience 1956, 57). Later figures show 88 percent with college degrees in 1966 and 95 percent in 1970 (National Association of State Boards of Accountancy 1971, 31).

With the growing importance of higher education in preparation for accounting and auditing careers, the writing of textbooks on auditing shifted from practitioners to educators. Although the auditing texts by Kohler and Pettengill published in 1924 and by Eggleston published in 1926 were transitional, in that these authors were engaged both in practice and in teaching, *Auditing Principles and Procedures* by Arthur W. Holmes was the first popular text written by an educator for use in college classrooms, and henceforth nearly all of the auditing texts published were written primarily by educators, although sometimes with the collaboration of practitioners.

Internal auditors, who are in a sense the descendants of the English manorial auditors, formed an international organization in 1941 to advance their professional interests and development: The Institute of Internal Auditors, Inc. In 1974, through its Board of Regents, that Institute began offering its two-day examination leading to the designation *Certified Internal Auditor.* In 1978 the Institute published *Standards for the Professional Practice of Internal Auditing,* a document that had been in preparation since 1974 by the Institute's Professional Standards and Responsibilities Committee.

Within the U.S. federal government, the long-established General Accounting Office became the auditing arm of the Congress–an evolutionary process that began with the Government Corporation Control Act of 1945 and the establishment of the Corporation Audits Division of the GAO. In 1949 the Comprehensive Audit Program was established by the Comptroller General, whereby the GAO began divesting itself of activities not directly related to audit and control. In 1950 the GAO was instrumental in forming the Federal Government Accountants' Association, now the Association of Government Accountants. In 1972 the Comptroller General published *Standards for Audit of Governmental Organizations, Programs, Activities & Functions,* which has set the standard for government auditing worldwide and fostered the development of performance auditing.

Meanwhile, the American Institute concluded that given the vast amount of change manifested since the thirties, it would be desirable to take stock in the form of an independent review of private sector auditing. Accordingly, a blue ribbon panel of knowledgeable and interested persons was assembled for the Commission on Auditors' Responsibilities under the chairman ship of Manuel F. Cohen, onetime chairman of the Securities and Exchange Commission. The report of the Commission was published in 1978 after Cohen's death, but is generally referred to as the "Cohen Commission Report." This highly significant report is directed "toward improvements in the future auditing environment," as stated in an explanatory paragraph that introduces the Commission's *Report, Conclusions, and Recommendations.* The report received much attention and has had a continuing influence on developments in the field of independent audits.

The attention that has been devoted to the performance of the audit function, both within and outside the public accounting profession, is an indication of the importance of this function in an increasingly complex financial and economic environment. Additional indicators of that importance are present in the investigations of the public accounting profession completed in 1977, by the Subcommittee on Reports, Accounting, and Management of the Senate Committee on Governmental Affairs, conducted under the chairmanship of the late Senator Lee Metcalf, and by the Subcommittee on Oversight and Investigations of the Commerce Committee of the House of Representatives, conducted under the chairmanship of Representative John E. Moss and continuing into 1978 at the time of Moss' retirement from the House.

An especially significant outgrowth of the Metcalf committee hearings and of pressure from the SEC was the creation of a practice division of AICPA with two practice sections, each of which is designated to set standards of practice and oversee the activities of section members. The SEC Practice Section includes a Public Oversight Board of prominent public figures intended to assure responsiveness to the interests of the public, and the Private Companies Practice Section addresses itself to problems associated with the audit of clients that are privately held–in other words, not subject to SEC jurisdiction. For the first time, it is possible through the policing actions of these oversight bodies to impose sanctions or censure a firm of accountants rather than individual Institute members, and both bodies have established mandatory peer review and mandatory continuing education requirements. The primary objective of both sections is quality assurance in the provision of public accounting services.

Some Concluding Observations

Communication has been essential in the development of civilization, and the invention of accounting as a specialized means of communicating information about sets of economic events has contributed to that development. The central role of communication in the practice of accounting and auditing has created an interesting contrast with most other professions in that professional services in most instances involve doing something directly to or for a client, whereas financial accounting and auditing involve communicating a result to third parties.

Accounting and auditing have attained their prominent position through the ability of the members of the profession to cope with the constant challenges presented by an increasingly complex business environment throughout the long history of the profession. Accounting information, as the service provided by the accounting profession, has been invaluable to business profitability on an internal basis by helping to identify inefficiency and by aiding in the control of widely dispersed operations. Supplementing the direct use of accounting information by management has been the development of performance auditing. On a macro basis, communication of reliable information about profitability has contributed to the productivity of capital and to economic well being by helping to channel capital to the most profitable (and hence most productive) opportunities. Furthermore, the availability of comprehensive reliable financial and operating information to those who supply business with capital has fostered confidence in the selection of investment opportunities and thereby helped to entice the vast amounts of capital needed to finance the industrial complex that resulted from the Industrial Revolution. The consequence of these interactions has been a tremendous outpouring of goods and services for the satisfaction of human wants and needs in an ever expanding society with constantly rising expectations.

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