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PERSONAL ACCOUNTS, ACCOUNT BOOKS AND THEIR PROBATIVE VALUE:
HISTORICAL NOTES, c.1200 TO c.1800

Abstract: This paper discusses a number of topics pertaining to personal accounts in account books in the period roughly between 1200 and 1800. The main emphasis is on two topics, namely the use of account books as evidence in courts of law, and bad and doubtful debts and their accounting treatment. Examples from various countries and periods are provided to illustrate the discussion, which is not intended to be exhaustive.

INTRODUCTION

The majority of accounts in surviving business account books of the period 1200 to 1800 in Western Europe are personal accounts. They record dealings of the firm with individuals, one-man businesses, partnerships, joint stock companies, religious establishments, and government bodies. In many of the account books there are only personal accounts, and in some there are mainly personal accounts together with a sprinkling of non-personal accounts.

This paper considers and illustrates a selection of topics that pertain to personal accounts in the period covered: personal accounts in single entry and double entry bookkeeping systems; the use of account books as evidence in law courts; how a merchant could increase the probative value of his account books; bad and doubtful debtors and debts, and the various accounting treatments given to them; and some concluding observations, mainly about ledgers in flames.

The word "merchant" is used here, for convenience, to include merchants large and small, wholesalers and retailers, as well as banks and manufacturing businesses. The main focus, though, is on merchants in the narrow sense.
Again for convenience, the word “merchant” is used here in the masculine form, i.e. “he”, “his” and “him”, in contexts which were by no means exclusive to men. Some women ran their own businesses. For example, in eighteenth century Paris the widow of a baker often continued the bakery business when the husband died: “In the midst of the trauma and grief, the widow had to think first of continuing business as usual. Competition for customers was keen; any interruption of service threatened to damage the business durably”.¹ Many more women contributed significantly to the businesses conducted by their husbands. Professor Olwen Hufton has written as follows [1995, pp.149-150]: “The bookkeeping side of many businesses was, right through our period [i.e. 1500-1800], very often the work of the wife....” She gives a specific example, that of the gifted Mrs Thrale, friend of Dr Johnson: “Mr Thrale the brewer, who could well afford the services of a clerk, left the bookkeeping to his talented wife and was well advised to do so as she had a far better business head than he did ...”. The French historian, Professor Serge Chassagne, has described the accounting skill, business sense, and dedication of the cultivated Mme Marie-Catherine-Renée de Maraise, who in 1767 married a partner in the famous Oberkampf textile manufacturing business [Chassagne, 1980, ch.iv]. Towards the other end of the spectrum, as it were, was Frau Margarete Bödeker in Kiel (around 1600) who worked regularly in the business and took her husband Ulrich’s place when he was away [Kleyser, 1978, p.416]. There were many like her.

PERSONAL ACCOUNTS IN SINGLE ENTRY AND DOUBLE ENTRY BOOKKEEPING

Single entry and double entry

Matthieu de la Porte, described as professeur teneur de livres de comptes and maistre ecrivain juré, published the first edition of his La science des negocians et teneur de livres ... in 1704. It proved to be a best-seller, and was re-issued (with changes) in several editions. According to de la Porte, single entry bookkeeping (parties simples) consists only of accounts for those persons with whom one traded (... son usage est d'établir seulement des Comptes pour les personnes avec qui on negocie ...) [De la Porte, 1704, p.1]. He provided a detailed illustration of his method.

¹ Kaplan, 1996, p.323. Kaplan's study includes many references to women's work in bakeries in Paris as well as to bakers' bookkeeping and credit arrangements.
The term "single entry bookkeeping" in due course came to acquire a different meaning. The term is now often applied to any bookkeeping arrangements that cannot be described as double entry bookkeeping. For convenience, the term is used in this sense in this paper.

Several publications have appeared in which early examples of single entry (in this wider sense) in our period have been surveyed. These surveys indicate a very wide variety of arrangements – ranging from ledgers with only personal accounts to ledgers with personal and non-personal accounts that come close to being double entry (and could in some cases have resulted from failed or imperfect attempts to implement that system). Here it is sufficient to add two more examples, one of single entry in the narrow sense, and the other of single entry in the more expansive sense.

Garrett Godfrey was a bookseller, bookbinder and stationer in Cambridge (England). Parts of his account book (c.1527-1533) have survived, and have been published, with scholarly analysis and discussion. The contents of the account book are best described in the words of the authors of the study [Leedham-Green et al. 1992 p.xiv]:

Godfrey's accounts ... are very largely, if not entirely, concerned with credit customers, each of whose names and addresses was entered in his 'book' with a list of purchases. If space allowed, further purchases by the same customer might be entered under the same heading, if not, the heading was repeated in the next available space. Periodically account-holders came in with cash and settled all or part of their debt, a transaction recorded usually by the formulae 'soluit complete' or 'omnibus computatis et solutis remanent solvendi' so many shillings. The entry was then, wholly or in part as appropriate, cancelled in the book.

From time to time an entry on which payment was still due would become stranded among others which were all cancelled and so, no doubt, run the risk of being overlooked, or at least hard to locate. The remedy was to cancel it and re-enter it among other accounts still current ...

The ledger (1413-1426) of the Milanese merchant Donato Ferrario da Pantigliate contains several non-personal accounts

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as well as many personal accounts [Gazzini, 1997]. The ledger is made up of bilateral accounts, with debit and credit spaces side-by-side on the same page (i.e. it is not \textit{alla veneziana}, where the debit and credit spaces are side-by-side on adjacent pages). The language is Latin, as was customary in account books in Milan and Genoa in the fifteenth century. The non-personal accounts include an account for canvas on which a profit was made (\textit{pro lucro facto}); and an account for a venture in cattle in a partnership with others (\textit{Vache empte ad sotietatem} ...). Some of the accounts have entries for quantities but without monetary entries: for example, there is a personal account with entries for transactions concerning wheat flour and flour mixtures (\textit{farine furmenti} and \textit{farine misture}).

\textbf{Personal and non-personal accounts}

Double entry ledgers necessarily contain non-personal as well as personal accounts, since this is one of the distinguishing features of the system.\footnote{In some cases a firm had several different ledgers (which together constituted the "ledger"). Thus there are examples where a firm kept separate ledgers for personal accounts and for merchandise accounts: the latter naturally had no personal accounts.} Simon Stevin, the noted polymath and adviser to Prince Maurice of Nassau, recorded a dialogue with the Prince in which he explained that a merchant makes pepper, ginger, capital and cash debtors and creditors just as he makes people debtors and creditors. He was comparing merchants' double entry bookkeeping with the records kept by the Prince's officials concerning his financial affairs.\footnote{Stevin, 1608: 11: "Il [the merchant] fait Poivre, Gingembre, Capital, Casse, si bien Debiteurs & Créditeurs comme les hommes ...."} In similar vein, Matthäus Schwarz, for many years chief bookkeeper of the wealthy Fugger family business centered in Augsburg, explained in a manuscript written early in the sixteenth century that while in Italy merchants treated merchandise as if it were a debtor like any other debtor, in the German states merchandise was not treated in that way.\footnote{Weitnauer, 1931, p.186: "... auf die mainung, wie mans in welschlanden helt, als das man die guetter auch fur schuldner helt wie ander schuldner ...". Schwarz also wrote that "in teutschen landen", "man die guetter nicht fur debitor helt."}

De la Porte [1704, pp.139-140] distinguished three classes of ledger accounts in the double entry system: the first are accounts of the owner of the business (\textit{comptes du Chef}); the second are accounts of real things (\textit{comptes des Effets en nature});
and the third are personal accounts (comptes de Correspondans, ou Personnes avec qui on negocie). He explained that the first category included the capital account, the profit and loss account and various expense and income accounts. The second category – the comptes des Effets en nature – included accounts for cash, merchandise, bills of exchange and particular assets such as houses, land and ships. The remaining category consisted of personal accounts. Many other treatises include the tripartite classification along the same lines as de la Porte.⁶

In Italy it became the practice at an early date to use the expressions deve dare (ought to give) and deve avere (ought to have) to distinguish debit and credit entries in personal accounts. These terms were natural and appropriate in entries in those accounts. They came to be applied also to non-personal accounts, where their use, strictly speaking, was not appropriate, but where their meaning was clearly understood. Thus, for example, in John Isham's ledger (1558-1570) one finds the following: "Satten [= satin] And Damaske owith [= ough] to gyve ..." and "Sattens and Damaske owith to have ...", respectively on the debit and credit sides of the particular merchandise account [Ramsay, 1963, p.31]. Another example: in Donato Ferrario's ledger (1413-1426) there is an account for fustians, Fondichus fustaneorum ..., with the words debet dare on the debit side, and debet habere on the credit side [Gazzini, 1997, p.306]. There is no reason to suppose that the terminology led to any difficulty in practice.

ACCOUNT BOOKS AS EVIDENCE IN LAW COURTS

Memory and evidential functions

The information contained in personal accounts formed part of the merchant's commercial data base. The information was necessary to enable the merchant to administer his debts, receivable as well as payable, and to help him manage his cash

⁶ Several English-language authors, although using the same classification, gave a somewhat different emphasis to the description of the first category: Thus Macghie, 1718, pp.9-10) calls the first class "Fictitious or Nominal Accompts". These are "such as are contriv'd on Purpose to supply the Defect of a Debitor or Creditor, in all personal or real Accompts; seeing that no Accompt can alone consist of a Debitor without a Creditor, or vice versa". The meaning is clear, even if the language is not. Donn, 1775, p.6 calls the fictitious/nominal accounts "Imaginary Accounts": these "are found necessary for preserving the Balance of the Leger ...". The Stock Account (= Capital Account), which "may be considered as representing" the owner of the business, is one of the imaginary accounts.
flow (as it would be called today). A merchant’s ledger served this mnemonic function even when, to modern eyes, the accounts and entries in it may appear confused, chaotic, or indeed incomprehensible.\footnote{A well-known example of a seemingly chaotic account book is that of the Runtinger, a substantial merchant house in Bavaria in the fourteenth century. A German scholar, the late Franz Bastian, 1881-1944, made a painstakingly detailed examination of the ledger and an analysis of its contents. Among other things, he was able to identify entries made in the handwriting of different individuals, and also to date most of the un-dated entries. Bastian’s study resulted in a 3-volume publication. Eikenberg’s study (1976) is based on Bastian’s work. He observes [1976, p.219] that without Bastian’s detailed investigation, it would be hardly possible, if at all, today to find one’s way in the Runtinger book – but that the Runtingers themselves would have had no particular difficulty.

Some merchants did not have any account books at all, but relied on memory and scraps of paper. Datini, the “merchant of Prato”, complained that his fellow-Pratesi kept their books only in their heads, for four out of six of them had neither book nor ink-well, and those who had an ink-well had no pen [Melis, 1962, p.344, n.3]. However, this statement was an exaggeration, as Richard Marshall has shown [1999: ch.4]. He studied the surviving accounts of small businesses in Prato, and comments: “Though not approaching the sophistication and precision of the accounting systems used by Datini and many other merchant bankers of the same period, the records of these artisans and shopkeepers appear to have served their purpose.”}

Another function of the ledger accounts, notably the personal accounts, was to serve as evidence in commercial disputes for adjudication by courts of law or by arbitration. The evidential or probative function of account books is illustrated in this section.

**Account books as evidence**

Merchants often presented, or were required to present, their account books before a court of law. According to Goldthwaite [2009, p.90], “nothing is more striking” in Renaissance Florence “than the many account books parties were forever hauling before the judges to substantiate their positions ...”. The court involved in the adjudication of these disputes was the Mercanzia, a body which represented merchants and had judicial powers. According to Ramsey [1956, p.187], in mid-sixteenth century England account books were

... acquiring increasing importance as evidence in courts of law. Ralph Goodwin of Ipswich told the High Court of Admiralty in 1538 that the ‘merchants of the towne of Ippeswiche do use to kepe bokes of their Reconynges wherin they do enter all bargaynes that they do make; unto whiche bokes credence is gevyn because that merchauntes have allways kept such bokes’.
In 1541, the consul of the Venetian merchants in London stated in the High Court of Admiralty that

... by all the tyme of this deponentys knowledge in the trate of marchaundyze, feythe hathe byn and ys gevyn to all honest merchaunte bookys called lydgers, the owner of suche booke beyng reputed knowen and takyn for an honest man in credit and truyth.8

In fifteenth-century Basle account books were often produced as evidence in disputes brought before the courts [Apelbaum, 1915, pp.112-117]. In Cologne in the period 1500-1650 account books “already enjoyed public credibility” [Gramulla, 1972, p.398].

Getting involved in events likely to give rise to commercial litigation was one of the risks that confronted merchants, especially merchants engaged in foreign trade. As the historian Dr Jenny Kermode has commented [1998, p.211]:

The possibility of spending time and money to enforce a contract in a distant court was an important consideration for any merchant entering a partnership, securing credit or dealing with anyone outside his own region. Trade, however, is for optimists. Most merchants presumably hoped that they would not be shipwrecked or assaulted by pirates or have to pursue an erstwhile partner through the royal courts in London, or, even worse, through a court overseas.

It is likely, though, that some merchants were astute enough to take advantage of the multiplicity of jurisdictions and the scope for delaying tactics.

Four cases

The main facts of four cases are presented here. The cases convey a sense of the range of the type of disputes that came up for adjudication, the difficulties confronting judicial authorities, and the use they made of experts, whether merchants or bookkeepers.9

(i) In 1291 a merchant of Lucca, Gettus Honesti, brought a suit in London against his former receiver, Pelegrin of Chartres, from whom he claimed a sum of 50,000 marks, allegedly with-

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8 The quotation is from Ruddock, 1951, p.95.
held by the receiver over a period of twelve years. The treasurer and the barons of the Exchequer first consulted four auditors and then a jury of Italian merchants, who were “summoned because the barons, on their own admission, neither understood ‘the idiom’ of the accounts presented to them, nor had much knowledge of ‘the laws and customs used between merchants’.” After further delays, “… the treasurer and barons conferred with the king’s justices and appointed a second panel of auditors to examine the evidence.” This panel was “not able to arrive at the conclusion of a true award by a clear and sufficient process.” The judges then appointed three arbitrators from the Italian merchant community (one chosen by each of the two parties and the third agreed upon by both) to join with the auditors in making an award.” After more delay, the receiver was charged with debts totalling £275. He was unable to pay this sum, and the treasurer and barons “confined him to prison.”

(ii) Members of two prominent Nuremberg merchant families, the Pirckheimer and the Imhof, were in dispute over a debt. In 1423, the two principal Pirckheimer partners brought an action before the Nuremberg city court against Cunz and Cristian Imhof. The Imhofs, it was claimed, had nine years earlier, in 1414, as agents carried out some business in fustians on behalf of the Pirckheimers. Allegedly, the Imhofs had not rendered an account of the commission business in question; and the complainants demanded a reckoning from the Imhofs as well as an inspection of their books. The Imhofs, under oath, responded to the effect that they had rendered an account, did not owe the Pirckheimers anything, and at the time did not have account books. The court, composed of a town mayor and two experienced merchants, found in favor of the Imhofs. Professor von Stromer considered that the Imhofs probably did not at the time have account books in the proper sense, but relied on memoranda. He suggested that, because at the time the Imhofs’ business was relatively small, memoranda might have been sufficient for their business needs.

More than 500 years after the court’s decision was made, Professor von Stromer was able to demonstrate that the Imhofs must have had an account book before 1464. He examined a surviving Imhof account book that covered the period 1464-1518. In that book there was an entry referring to an earlier account book which was marked with the sign of the cross (...
puch mit dem + ...). That book must no longer have been in use by 1464/1465. Von Stromer claimed also that it was wholly unlikely that the “cross” ledger had already been in use by 1414, the date of the transactions that gave rise to the dispute. However, the evidence does not seem clear cut. The surviving account book – which presumably was marked “A” or “1” -- covered a period of over 52 years. Assuming that the “cross” ledger was of the same size as its successor, it is possible that it was opened in time for recording the transactions in question. This inference is supported by von Stromer’s observation that the Imhof business was small in 1414 and in due course grew larger. The new evidence, though interesting, does not establish reliably that the Imhofs in fact did not have an account book at the relevant time.

(iii) Bernard de Roaix, a small-scale trader (commercant) in Toulouse, had taken part in an uprising in Burgundy in 1418-1419. His assets were confiscated, and his creditors applied for payment of what they claimed was due to them. One of the creditors, Pierre Jean Marty, a farrier (ferratier), presented a copy of a folio of his ledger (livre de raisons) to the authorities. The entries included acknowledgements of debts. They were expressed in the first person, and it was established that they were in the handwriting of Bernard de Roaix. Many small purchases were listed up to June 1407. Apparently the practice of having acknowledgements of purchases written in the ledger was used by Marty. The court decided that his claim for payment was valid.

(iv) In Antwerp in 1566 Johann Grüter, a city councillor (Rats­verwandter) of Münster, entered into a commercial partnership with Paulus Deschamps and Ronald Marin, the last-named being the manager and bookkeeper. When Grüter died, his widow asked for an accurate accounting and the winding-up of the partnership. But the liquidation was delayed, partly because Marin was spending two years in Lithuania. As creditors were pressing the widow, she travelled to Antwerp accompanied by two experts in the hope of expediting the winding-up of the partnership. The experts and some other merchants examined the partnership’s account books and found that they had been poor-

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10 The practice of marking a firm’s first journal or ledger with the sign of the cross seems to have been well established in Italy and other Christian countries. For example, Pacioli (1494: ch.6) wrote that it is “a good custom for true Catholics to mark their first books with that glorious sign from which every one of our enemies flees, and before which the infernal horde rightly trembles, that is the sign of the holy cross ....” (Translation by von Gebsattel, 1994, p.48).
ly kept. Accordingly, a bookkeeper, Keltenhofer, was appointed to bring the books into good order. Keltenhofer constructed the partnership’s journal, and another bookkeeper, Walter, was entrusted with the task of posting the journal entries into the ledger and of drawing up the balance account. His conclusion was that both Marin and Grünter owed the partnership substantial sums. This outcome naturally pleased neither Marin nor the widow. Marin cast doubt on several of the entries – whether they should be debits or credits. Five men of integrity were then appointed by the Münster authorities to examine the disputed entries. When they had completed this task, the two bookkeepers corrected the books, and under oath confirmed that they were in order. The Münster council attached its seal to the documents in May 1578, and advised the authorities in Antwerp that the balance account was correct and in conformity with the accounts in the ledger. Nevertheless, in letters to the Grünter widow Marin continued to contest the bookkeeping and refused to accept it. A wide-ranging legal battle ensued, which eventually reached the imperial court of appeal in Speyer (Kammergericht). The evidence given by the two bookkeepers and the account books they had completed played an important role in the legal proceedings. The matter was referred back to the lower court. In due course Marin conceded that the accounts prepared by the two bookkeepers (Keltenhofer and Walter) were indeed correct. And there the matter ended.

Local legislation

In addition to reports of commercial disputes that came for adjudication before courts of law, local legislation also provides information about the use of account books as evidence of debt. From the details provided by the late Professor Penndorf [1913, pp.168-170; p.236] for some German cities in the sixteenth and seventeenth centuries, it appears that the account books of a merchant were likely to be given weight as evidence in legal proceedings only when the merchant was found to be of good character and was reputed to conduct himself honorably in his business dealings. It also helped if the merchant affirmed the truthfulness of the contents of his account book under oath. In some jurisdictions, limits were placed on the period during which entries in an account book would be accepted as valid proof of debts. An ordinance of 1783 decreed that in Schleswig and Holstein claims had to be made within three years of the recorded transaction in the case of disputes within the country, extended to six years in the case of disputes with foreign contes-
The 1520 city legislation of Freiburg was particularly detailed. The account books had to be bound and have strong covers. As far as possible, entries in the books should be made by the merchant himself, or by his specifically authorized servant. The entries should be distinct from one another, and without erasures and cancellations. It is of particular interest that the Freiburg legislation of 1520 required that totals should be expressed not in arabic numerals but in roman numerals or in whole words (... nit mit zyffern sonder langenzal oder mit gantzen worten ...). This requirement seems to have reflected a lingering impression in some places that it was more difficult to alter roman numerals than their arabic equivalents and that their use therefore reduced the likelihood of fraudulent tampering with the accounts.\footnote{Because of the alleged susceptibility of the “new” Arabic numerals to fraudulent alteration, in 1299 the city authorities in Florence introduced a statute that obliged those engaged in money-changing operations to use roman numerals, i.e. letters (\textit{per literam}) in their books. [Menninger, 1958, vol.2, p.244]. Menninger also quotes from a Venetian work on bookkeeping to the effect that it was easy to change a zero “0” into a “6” or “9”, and also to make other fraudulent modifications to arabic numerals. (I have not been able to identify the source.)}

**INCREASING THE CREDENCE GIVEN TO ACCOUNT BOOKS**

**Introduction**

There were several ways in which a merchant in our period could increase the likelihood of receiving payment of his accounts receivable. For example, the merchant could insist that the debtor provided a surety or guarantor for the debt; he could have the debt recorded by a notary; or he could have it recorded in the official “town book” where one was available.

In various ways a merchant could also increase the acceptability of his ledger (and other account books) as evidence in courts of law.

**Pious invocations**

Early account books often include pious inscriptions or invocations on their first page. Typically, the merchant beseeches God, the Virgin Mary, particular saints or the saints in general to grant him good profits and the salvation of his body and soul. The invocation is usually followed by a paragraph in which
information is given about the business, e.g. the names of the partners (and of the individual(s) who would make entries in the book), and about the account book itself, e.g. number of pages, the material and colour of the cover, its designation (e.g. ledger number “A” or “1”), the currency of the entries, and, in the case of a ledger, the form of the accounts (e.g. debit entries in the first half and credit entries in the second half of the book; or debits and credits on facing pages).\(^{12}\)

According to Professor Hunt [1994, p.108], these pious invocations in mundane account books may seem incongruous, perhaps even cynical, to twentieth-century eyes. Partly they attest to the pervasiveness of the Christian faith among medieval businessmen, about which much has been written. But also they may perform a legal function ... [A.P. Usher] also suggested persuasively that the pious phrases appearing on bills of exchange and account books were designed to give additional sanction to otherwise informal documents, enhancing their enforceability.

It may well be that the probative value of the account books was also enhanced if they were authenticated before the city consuls (in cities which had such arrangements), as was explained by Luca Pacioli [1494, ch.7] with special reference to the city of Perugia:\(^{13}\)

It is good custom in diverse places in which I have been, for a merchant to take and show his books to a certain authority, such as the consuls in the city of Perugia. You declare that these are your books, in which you yourself intend to write the entries, or to have entries made by such and such person, of all your transactions in an orderly manner, and you state the currency in which you wish to keep them, that is in “lire di piccolo” or in “lire di grossi”, or in ducats and lire ... These things the good merchant must record on the first page of each of his books ... And ... the authority's clerk in his own hand and in the name of the authority will write the same matters on the first page of your books, bear witness to everything etc., and attach the authority's seal authenticating them in all cases when they might be required to be presented.

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\(^{12}\) For examples of invocations, see Yamey, 1974, pp.143-147, Yamey, 2010, pp.163-165, and references cited; and Edler, 1934, p.388.

\(^{13}\) Translation by von Gebsattel, 1994, p.49.
The authority did not, of course, certify or authenticate the contents of the books.

**Double entry bookkeeping and the probative value of accounts**

The question arises whether courts of law accorded a greater probative value to a merchant’s account books as evidence when they had been kept on the double entry basis than in any other way.

The Jesuit Lodovico Flori was the author of one of the most interesting and sophisticated of the early treatises on bookkeeping and accounts. Although the main subject of his book, published in Palermo in 1636, was the application of the double entry system to the transactions of religious establishments, it is evident that Flori was knowledgeable about the business world.

Flori wrote in the preface of his treatise that account books properly and well kept on the double entry system were treated as being fully worthy of trust by public authorities in all countries. And, according to Flori, merchants and traders throughout the world used the double entry system if they wanted their account books to be trusted by public authorities.  

This statement is remarkable, and Flori’s competence in accounting matters is not in doubt. It should, nevertheless, in my view be treated with much scepticism; and this is so for several reasons.

Flori provided no specific evidence to support his claim. No reference is given to decisions of judicial authorities anywhere in Europe, nor to any other authoritative sources. Furthermore, it is highly unlikely that a court of law would have failed to take account of the character and reputation of the merchants involved in a dispute, regardless of whether or not the account books were in double entry. Moreover, experienced judges and magistrates, and even more so experienced merchants and bookkeepers who acted as members of tribunals or as assessors, would have known that the double entry system was not a safeguard against error and fraudulent entries. Indeed, Pacioli [1494, ch.7] had drawn attention to fraudulent practices: “,, since many [merchants] keep double books; one which they show to the buyer and the other to the seller; and what is worse,  

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14 The statement in Flori, 1636, p.3 is as follows: “... s’e ben tenuto, e come si conuiene, acquista da quello la Scrittura appresso di tutti indubitata fede, la quale ancora vien confermata con publica autorità appresso tutte le Nationi. Che perciò tutti I mercanti, e negotianti del mondo, quando vogliono che alli suoi libri si presti intiera fede, non si servono d’altro modo, che del Libro Doppio ...”.
they perjure themselves in this way, and do great evil."¹⁵ Flori himself was aware of the possibility of fraud, and of the need to minimise the risk of its occurrence.¹⁶

There is yet another consideration. If Flori’s claim for the double entry system were even broadly correct, that important practical implication of the use of the system would have been widely known, at least in commercial circles. Writers of treatises on bookkeeping and accounts were, by and large, eager to extol the virtues of the system and to draw attention to the benefits merchants could derive from using it. Some of those writers would surely have made much of the purported fact that law courts were likely to give full credence to journals and ledgers kept in accordance with the rules of double entry. Yet to the best of my knowledge no treatise on bookkeeping and accounts (other than Flori’s) published during our period includes any such claim, or suggestion.

From Flori’s sweeping claim we turn to consider a more modest one, concerning the bankruptcy of a merchant. Is it not possible that a bankrupt merchant who kept his account books on the double entry system was, for that reason, more likely to receive more lenient treatment from the court or from his creditors than if he had not done so? The question is relevant if only because of a statement in Robert Colinson’s *Idea Rationaria* ..., (the first treatise on bookkeeping and accounts published in Scotland, in 1683), that double entry account books were viewed favorably by creditors in bankruptcy proceedings. Colinson wrote as follows [1681, p.1] in the context of the use of the so-called Italian system of double entry bookkeeping (italics added):

... if he [the merchant] be unfortunate it satisfies the world of his just dealing, and is the fairest and best Apologie of his Innocence and honesty to the World, and Contributes exceedingly to the satisfaction of all his friends and well-wishers, and to the Confutation and silencing of all his malevolent and detracting Enemies,

¹⁶ Flori [1636, p.29] noted that certain entries in a ledger might not seem to need to have corresponding journal entries, for example, entries made to correct an error. Their omission meant that less effort was involved; and Flori also noted that there was no risk of deception or fraud in such cases (... *non essendo in ciò alcun pericolo d’inganno, ò fraude* ...). Flori nevertheless advised that entries should be made in the journal in those cases, so that the total of all entries in the journal could be checked against the total of all entries in the ledger.
and often proves the great cause to bring him to a most favourable Composition with his Creditors: whereas these that are ignorant of it, in such a Condition are censured by all, when they have nothing to show but bare words to vindicate themselves ... [emphasis added]

The hyperbole is apparent: “bare words” was not the only alternative to double entry accounts. But what is more important, Colinson provided no evidence in substantiation of his assertion. Considerations that affect the validity of Flori’s claim apply mutatis mutandis to Colinson’s.¹⁷

What seems to have counted strongly in judicial proceedings, arbitrations and bankruptcy proceedings were the standing and reputation of the merchant and the orderliness and clarity of his account books, rather than whether or not they were kept by double entry. The authors of the relatively few treatises on bookkeeping and accounts in our period who refer to the credence given to account books in commercial disputes tended to emphasize the need for the merchant himself, or a named servant, as far as possible to make the entries in the main books, and to keep them free of interlineations, of cancellation of words and entries by striking out or obliteration, and of erasures and other blemishes which might cast doubt on the authenticity or the validity of particular entries, or of the account books themselves.¹⁸

Some of the treatises in question also indicate that account books such as the journal in which entries are made in strict chronological order were likely to have greater probative value than account books such as the ledger. It was more difficult for a merchant or bookkeeper to insert fraudulent entries supposedly relating to earlier transactions in a well-kept journal.¹⁹

¹⁷ The Colinson passage quoted in the text above is included in James Aho’s book [2005, pp.53-54]. He adduces it to support his conclusion that medieval merchants had very good reasons to “cast up accounts to the communities that tolerated them and to the Creator ...” However, Aho has misunderstood the passage, and has mis-quoted key words. Instead of the words “with his Creditors” in the italicised sentence quoted above, Aho has the words “with his Creditor [namely God]”.

¹⁸ Weddington [1567] puts some of the main points succinctly in the section on the “great Boke or lidger”: “And this boke ought to be verri faire writton, without ani blottinge or eror, and with one manner of hande ... all the wiche ought to be don in so good order and perfection, as though it ware your last will or testament ....”

¹⁹ A chronologically-ordered account book is not unique to the double entry system. For example, de la Porte included in his system of single entry a journal...
distinguished Roger North — whose publications included books on law, history, music and fish — in his treatise *The Gentleman Accomptant* (1714) contrasted the journal and the ledger in this respect. In a regularly maintained journal, he writes, “an After-cheat ... can afterwards foist nothing into the Books, that is false, to give Colour to it.” In the ledger, because some accounts will have only occasional entries in them, with large lapses of time between some entries, the After-cheat can make a false entry without it being suspicious: “… and in the last Year you may write with a Date Two Years before; and what shall shew the Falsity?” [North, 1714, p.44].

The French *Code de Commerce* of 1673, which was aimed specifically at tackling the problem of fraudulent bankruptcies, did not require merchants of any category to keep their books by double entry. The articles of the *Code* that dealt with accounting matters stipulated that merchants’ account books should be certified by the appropriate public authorities; that the entries in the journal should be made one after the other in date order, without blank spaces and with nothing written in the margins; and that the merchant should draw up an inventory of his assets and liabilities every two years. A merchant who went bankrupt and whose account books had not been certified properly would be deemed a fraudulent bankrupt and be proceeded against with vigour and be subject to the penalty of death (... *banqueroutiers frauduleuz seront poursuivis extraordinairement, et punis de mort*). The prescriptions of the *Code* were not enforced rigorously at any time, and became a dead letter.

**Written acknowledgements of debt in ledger accounts**

(either a *journal entier* or one sub-divided into various books for different classes of transaction).

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20 Pacioli, 1994, ch.6, noted that it was desirable to number the pages of the journal. It was not sufficient that the entries in it were made in chronological order. “... We have seen many big merchants who filled not one page but two or three a day; of which one could later be cut and removed (by someone who wished to do ill). Such fraud could not be known or discovered from the dates ....” (Translation by von Gebsattel, 1994, p.49.) Pacioli was much concerned about fraud and its prevention. He did not, however, mention another practice designed to reduce the possibility of fraudulent entries in the journal. This practice was to make one or several oblique strokes across any blank space that was too small to accommodate a complete entry at the foot of a journal page. The practice is described in Ympyn, 1543, ch.9: “Et fault pourtraire vne royce soubz la partie derreniere de chacun coste du journal, appres que la partie close sera: & affin que on ne maicte sur la marge, ou aux lieux vaccans, aulcunes parties faules.”

21 For the relevant text of the *Code* and an informative commentary, see Lemo-chand, 1993, pp.116-123.
In the earlier centuries of the period covered in this paper it was not uncommon for a merchant to require some of his customers to acknowledge their indebtedness by making entries, or at least signing entries, in their personal accounts in his ledger. This reassuring practice clearly would have increased the value of the personal accounts in the ledger as proof of indebtedness in courts of law.

One example has already been referred to in the discussion of the case of the Toulouse merchant de Roix (see page 9 above). Two more examples are given here. The first concerns Martin Bursa, a merchant of Bruges who traded in Valencia [Lapeyre, 1970, p.103. His account book (1414-1426) includes entries with signed acknowledgements of debt written in several languages – Valencian, Castilian, French, Latin and Arabic – a fact which, incidentally, illustrates the mobility of medieval merchants. The second example concerns the oldest surviving business account books (1516-ca. 1538) in Austria, those of Alexius Funck, a prominent merchant and mayor of Wiener Neustadt. The Funck business required handwritten acknowledgements of debt from several customers (including Jews from Western Hungary and some members of the aristocracy). One entry is to the effect _inter alia_ that the customer, Herbster, has made a reckoning with the honourable and wise Michael Hermann (Funck’s manager), acting on behalf of Funck, that he owes Funck 701 pounds and 5 shillings, and that the entry is in his own handwriting for assurance.\(^\text{22}\)

An older branch of the famous Medici family of Florence, engaged in cloth manufacture and trading, went further than simply requiring some customers to acknowledge their credit purchases in its ledger [Edler, 1934, pp.402-403]. In some cases, shortly after a transaction had been made, an employee of the Medici would be sent to the customer to ascertain whether he had entered the transaction in his own account book. If he had, an appropriate annotation would be made in the personal account in the Medici ledger. For example, the following is written below the debit entry for a credit sale in the personal account of Piero Ispina: + _Veduto iscritto a loro libro memoriale segnato_

BAD AND DOUBTFUL DEBTS

A serious business problem

In 1625, Dettleff Heldt, of Hamburg, compiled an inventory of his assets (mostly debts receivable) and liabilities of his business, and concluded with an appeal to Almighty God, *inter alia*, to have mercy on him, and that all his debts might be collected.\(^\text{23}\) In 1698, Barthold Festingh, a merchant of Abo (Finland), opened his account book marked “G” with an invocation beseeching God’s blessing that the book should begin happily and end perfectly, and also that he will be protected from “evil, deceitful debtors.”\(^\text{24}\)

Many merchants in our period would have welcomed divine protection from the losses caused by debts becoming uncollectable. The prominent sixteenth-century Spanish merchant Simon Ruiz wrote that, like the plague, unsafe debts were to be avoided [Lapeyre, 1955, p.74]. A bankruptcy of a major debtor, or his escape from prosecution by absconding to a safe haven, or his *de facto* immunity from prosecution, could cause heavy losses for his creditors. An interesting example is that of Francisco Dyas, a Spaniard who arrived in England in 1453. Five years later he returned to Spain, and left behind him “many large debts to notable and angry Londoners” as well as to Italian merchants operating in England [Childs, 1991, p.73-74]. In the sixteenth century, it was difficult for the Moscow branch of the (English) Russia Company to refuse selling on credit to the Emperor and his courtiers: the goods of the merchants who were members of the Company were “ever ready at hand for the Emperor and his nobilitie’, who took wares ‘upon trust ... and so it becometh desperate debt ...’” The impact of such debts (from all sources)


could be heavy. The Company’s profits for 1585 were initially calculated in the accounts as the equivalent of £8.17s.8d per cent of the capital. The profits were later transformed into a loss of 30 percent, as a result of large losses from debts and other “remaines” in Russia and from “debits and other matters in England esteemed good at the time” but later “found not to be good” [Willan, 1956, pp.206, 214].

In his manuscript of 1458, Benedetto Cotrugli strongly advised his fellow-merchants not to allow their debts receivable to grow old. He told them, in effect, that uncollected debts filled the ledger but harmed the merchant. The merchant must not conduct his affairs so that his account books are rich but he is poor. The merchant must strive hard to collect the debts due to him. Indeed, according to Cotrugli, the merchant should refrain from all business activities every seventh year, except that he should settle his accounts and seek to collect the money he was owed. (But mainly he should spend the sabbatical year in peaceful repose and meditation.)

Many merchants in our period did try to collect their debts, even if some of them would not have measured up to Cotrugli’s high standards. According to Kermode [1998, p.233], writing about late medieval England: “However difficult and discouraging the exercise, recovering debts was an essential part of business. Failure to do so could result in commercial disaster, as happened to Gilbert Maghfeld, or the disappointment of legatees.” Sometimes merchants insisted that the

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25 Tucci, 1990, p.156: “... non lasciare invecchiare li debito ... Fa in modo che li tuoi libri non sieno ricchi et tu povero ....”
26 Tucci, 1990, p.182: “... lo mercante debbe sempre all 7° anno riposare da ogni suo exercitio et traffico, et quello anno non fare alcuno contracto ma saldare li conti suoi et ridurre tucto in saldo et riscuotere ....”
27 For Marseilles merchants of the eighteenth century, see Carrière, 1973, p.740. One merchant, L. Isner, reported that he sent his younger son to Sardinia, and his elder son to Calabria and Sicily where he stayed for 15 months, to recover debts from various debtors.

Cotrugli, writing in 1458, advised merchants to use youths (giovani) to collect debts for them. Merchants have to be and appear to be human in their dealings (... debbono essere et parere humani ...). Youths, on the other hand, are not ashamed to be importunate and annoying or to embarrass the debtor. They will persist until they receive payment (... ma ali garzoni è virtù d’essere importuni et non lentare fino che habbi riscosso, et fare arossire milie volte il debitore ...). Cotrugli reported that many Genoese and Florentine merchants followed this practice of using youths as debt collectors (... questa doctrina seghuono molto più Gienovesi et Fiorentini ...). See Tucci, 1990, pp.156-157.

28 Maghfeld was a fourteenth-century English merchant whose account book is one of the earliest account books in English to have survived. (Geoffrey Chaucer
debtor should deposit a pawn. Thus Ditlev Enbeck, a merchant and alderman in Malmö (Sweden), wrote in his account book (1521-1535) that a particular debtor owes him 10 marks and has given three silver spoons as a pawn.\textsuperscript{29} Alexius Funck (see p.17 above) would require a written bond from a customer to whom he did not want to extend further credit, and often required the customer to pledge as security such assets as his goods, his house, his wife's finery, or indeed all his assets; and Funck would enforce the pledge when payment was not forthcoming.\textsuperscript{30} But there could be difficulties that made it impossible for Funck or his successors to collect a debt. Thus after Funck's death, his manager who continued the firm's operations recorded in his account book that a customer, Schiffer, could pay only 20 pounds on a debt of 110 pounds. There was nothing more available. His property had on two occasions been set on fire by the Turks (during their military invasion of Austria).\textsuperscript{31} The Medici bank, when it was a papal banker, was able to use the threat of excommunication in attempts to recover debts in its branch in Rome [De Roover, 1963, p.213]: “Apparently, ecclesiastics were more reliable debtors than laymen, because there was always the weapon of excommunication, and the Medici had little hesitation about using it against defaulters. However dreadful, it sometimes failed to impress, especially laymen who were impervious to the frightening prospects of damnation and did not have to fear the loss of their benefices.” In eighteenth-century Paris, according to Kaplan [1996, p.390], bakers and their suppliers often sought the intervention of senior public officials to enforce payment of debts. “In 1725 one of the foremost flour merchants of Pontoise threatened to boycott the capital because

\textsuperscript{29} Andersen, 1954, p.185: “... so is my schuldich Clawes ghlasemaker 10 mr., dar hebbe ik 3 sulwer lepel for to pande.”

\textsuperscript{30} Pickl, 1996, p.96: “Meist wurde der Debitor nunmehr, wenn dies nicht schon früher geschehen war, dazu verhalten, einen Schuldbrief auszustellen, in dem der sich zu bestimmten Rückzahlungsmodalitäten verpflichtete. Häufig wird die Frau in diesen Vertrag miteinbezogen, und sehr oft muss der Schuldner seinen Besitz als Pfand verschreiben. Wir hören, dass Warenlager (Pfennwert), Schmuckstücke, Weingärten, Häuser und der gesamte Besitz als Pfand eingesetzt werden und auch in Zahlung genommen wurden, wenn keine andere Bezahlung erfolgte.”

But Funck could be generous on occasion. He did not do anything to enforce payment of an (admittedly small) amount; he wrote in his account book that the debtor could wait until he became rich again (“... die soll er mier bezalln wan er wider reich wiertt” (p.178).

a baker refused to pay his account of eight thousand livres. Pontoise was one of the chief sources of Paris flour, the capital was in the throes of a serious dearth, and other merchants would surely follow the lead of this ‘big mealman [gros farinier]’. In these circumstances, Lieutenant General Héralt [the lieutenant general of police] vowed to extract payment from the debtor baker and any others who gave the flour dealers a pretext to abandon the supply of the capital’ [Kaplan, 1996, p.390].

*Accounting treatment of bad and doubtful debts*

There were several methods for dealing with bad and doubtful debts in the ledger. One method was to do nothing about bad or doubtful debts in the ledger, but simply to keep open the personal accounts of all debtors, whether the merchant deemed them to be good (“sperate”), doubtful (“dubious”), or bad (“desperate”). This practice, which, for example, the Bank of England seems to have followed in its mid-eighteenth century ledgers, took up space in the ledger, and involved more work when a ledger was being closed and a new one opened. On the other hand, the evidence of the debts’ existence was kept visible; and sometimes, though probably rarely, a doubtful or even desperate debtor might surprise the merchant by appearing and actually paying his debt after many years.

A second method was like the first, except that the merchant or his bookkeeper annotated the debtor’s personal account appropriately. A third method was similar, but more interesting. It involved the closing of the individual bad or doubtful debtors’ ledger accounts, and the transfer of the unpaid balances to a collective personal account suitably designated to indicate the nature of the debts, e.g. an Account of Bad and Doubtful Debtors. (Details of the individual debts could be recorded in a separate booklet or memorandum.)

A fourth method was for the merchant to give up hope, to close the debtor’s account, and to transfer the balance as a loss to the profit and loss account, either directly or through an intermediate Bad Debts account. For example, in 1755, Peter Du Cane (1713-1803), a merchant who was also director of the Bank of England and of the East India Company, in effect in 1755 wrote-off the debts of three Lisbon merchants to the profit and loss account. In the journal entry the reason given was “the
destruction of Lisbon by an Earthquake the 1 Novr last.\textsuperscript{33} By way of contrast, the partnership of Andries van der Meulen in sixteenth-century Leiden did not write-off two small debts but moved them into a Doubtful Debts account (\textit{Dubieuse schulden}), although in each case the debtor is described as not having been traced (\textit{is onbekent ende tot deser can niet gevonden worden}).\textsuperscript{34}

Finally, some merchants followed what is the present-day method of leaving the doubtful debtors’ accounts undisturbed, but setting up a provision or reserve account to reflect the loss the merchant thought he was likely to suffer. There are early Italian examples of this practice (e.g. de Roover, 1963, p.247). A late eighteenth-century French example is in the accounts of the Manufacture de Papier Peints of Rixheim (near Mulhouse). An entry in the firm’s journal, dated 1798, indicates a credit to a reserve account, the balance on which was equal to 15 per cent of the \textit{dettes actives} [Lemarchand, 1993, p.237].

Some early Italian merchants and banks had general reserves, which were set up to reflect losses likely to occur from current and past activities. A reserve (\textit{riserbo}) of this kind was created in the 1392 accounts of the Pisa branch – a separate partnership – of the multinational business of Francesco Datini. It was designed to reflect, \textit{inter alia}, the inclusion among the assets of debts owed by bankrupt debtors [Melis, 1962, p.419]. The ledgers of the fifteenth-century Cambini bank in Florence included a reserve account, which was credited from time to time with round sums (e.g. 400 florins): it was called \textit{fondo svalutazione crediti} [Tognetti, 1999, e.g. p.213].

\textbf{Over-statement of value of debts receivable}

In all, it is evident that many merchants and bankers were reluctant to write-off even bad debts. Presumably this meant that the firm’s net assets and profits were over-stated. In some cases the over-statement was large. A memorandum of Lorenzo de Medici (\textit{il Magnifico}), dated 1479, drew attention to the large accumulated losses of the Bruges and London branches of the Medici bank. Professor de Roover, the historian of the bank, after studying the surviving accounts and other records, concluded that this was a gross under-statement of the position, since it “rests on the assumption that most of the assets were worth their book value, which is certainly optimistic considering the high proportion of dead claims and slow accounts” [De Roover,
1963, p.350]. Another example concerns Simon-Emmanuel Le Normand, banker and financier, son of a French merchant established in Spain. He failed in 1792, and “the statement he furnished his creditors showed assets of more than thirteen million livres, including bad and doubtful accounts of six million and a deficit from profit and loss of nearly a million” [Taylor, 1964, p.490].

The merchant who owned the business, or the individuals actively engaged in running a partnership business – whether partner, manager or senior employee – would have been aware of such over-statement of assets and profits. But absentee owners, sleeping partners or owners (such as Lorenzo) and senior managers located in distant headquarters would have been in the dark. There certainly was scope for deception.

**CONCLUDING OBSERVATIONS**

Merchants were apt to treat their ledgers as valuable assets; and the information in the personal accounts included in them must have been an important consideration. One sixteenth-century Hamburg merchant kept his account books in an iron chest with three locks; another always carried with him the key to the chest that contained his account books [Gramulla, 1972, p.399, n.1]. When in 1646 an explosion caused by gunpowder stored in his house resulted in several deaths, a fire and much damage to property, Balthasar de Groote, a leading merchant in Antwerp, managed to escape, saving his life as well as his current ledger and journal [Baetens, 1976, p.32]. According to Ruddock [1954, pp.95-96], “sometimes, twenty years or more after a merchant was dead, his ledgers might be bequeathed as family valuables to his descendants and produced in court in the hope of recovering debts” (Ruddock is referring to sixteenth-century Italian merchants). Partnership agreements often stipulated what should happen to the firm’s account books and papers after the partnership’s dissolution, and who should have access to them.

In 1339, a mob in Genoa went on the rampage to celebrate the election of the popular Simone Boccanegra – the hero of Verdi’s opera – as doge of the city. The fire they started destroyed *inter alia* a series of ledgers kept by the stewards of the commune (the *massari*). The incineration of the ledgers destroyed evidence of the debts owed to the commune: the flames were not only part of a joyous celebration, but also served to destroy memory and wipe the slate clean.

About 150 years later, a burning ledger served as a meta-
phor. In 1485, King Frederick of Aragon chose an *impresa* (a personal device, usually a visual riddle) for himself. The King recently had had trouble from his nobles. But he forgave them, and wanted to show his forgiveness. He chose an *impresa* showing a ledger on fire, with flames issuing from its edges. The meaning of this conceit was that just as the burning of the ledger was deleting the debts recorded in it, so the King was erasing the nobles' misdemeanours from his memory. The visual metaphor neatly captures the functional essence of personal accounts.

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Abstract: Double entry bookkeeping emerged by the end of the 13th century and was adopted by, for example, the Datini of Prato during the 1380s. In the transition from single to double entry evident in the Datini Archives, initially accounting records were kept in an account book called a Ricordanze. Record books of this name were typical of Tuscany and, when such books were first used in Tuscany, businessmen began to use them also as a form of personal diary and autobiographical record. Others not in business followed suit and maintained purely personal biographical diaries of the same name. For those in business, the Ricordanze thus developed into a hybrid: partly autobiography and personal and, partly, a place to record matters relating to his business, including details of transactions and of other matters he did not wish to forget, such as promises, obligations, and conditional agreements.

As revealed in the Datini archives for the 14th and 15th centuries, use of a Ricordanze for this purpose was discontinued in the accounting system and the book was replaced with another called a Memoriale, which contained details of all business transactions. By the time Pacioli wrote the first published description of double entry bookkeeping,

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the *Memoriale* was identified as one of the three principal account books of that system. The others were the *Giornale* [journal] and the *Quaderno* [ledger]. However, largely unnoticed by accounting scholars, towards the end of his treatise, Pacioli also describes another book that merchants ‘would be wise to keep’: a *Ricordanze*. Not a personal *Ricordanze* nor a hybrid personal plus business *Ricordanze*, nor a version of a *Memoriale*. Pacioli’s *Ricordanze* was intended to serve a very specific purpose: it was a book dedicated to maintaining a record of things that should not be forgotten. As such, it was intended to provide an extra layer of managerial control over the affairs of the merchant beyond that provided by the double entry system.

This paper considers the role of Pacioli’s *Ricordanze*, of the records that may be maintained within it, discusses the merits of maintaining a record book of this type, and questions why such a clearly useful device does not appear to have been adopted even though it was described in the same treatise which led to the universal adoption of double entry bookkeeping.

**INTRODUCTION**

Without exception, the merchant should not trust his memory, for such trust results in many errors. [Benedetto Cotrugli¹, 1458, translation by the authors]

Many scholars have written about the origins of double entry bookkeeping, speculating upon how and when it emerged [e.g. Littleton, 1927; Peragallo, 1938; Yamey, 1947; Zerbi, 1952; Martinelli, 1977; Kleinhenz, 2004; Arlinghaus, 2006; Orlandi, 2011]. A number of early confirmed instances of its use have been identified, including its adoption by, for example, the Dati­ni of Prato during the 1380s [De Roover, 1937, 1938]; and it is now generally accepted that double entry bookkeeping emerged by the end of the 13th century [Lee, 1977; Smith, 2008]. Some scholars have focused on individual elements of a double entry system, such as the nature and form of ledger accounts [e.g. Lane, 1945; De Roover, 1941] or individual items, such as the origin of the trial balance [Peragallo, 1956], the origin of the journal entry [Littleton, 1928], the development of compound journal entries [Peragallo, 1977, 1983], inventory accounting [Stoner, 2011], bookkeeping practices [Peragallo, 1977, 1980], and closing procedures [Peragallo, 1981]. Many authors have written about Pacioli’s [1494] treatise, the first printed text to describe this system of accounting, including Hernández-Esteve

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¹ Benedetto Cotrugli was the author of the first known written description of double entry bookkeeping. He did so in five pages of a manuscript written in 1458. It was not printed until 1573.
Pacioli’s Ricordanze lies outside the double entry system he described. It enriched the information maintained by the merchant over his affairs, arguably expanding the data-and-value-orientated double entry system to embrace qualitative information and so provide a more complete accounting system than is possible from the strictly data-value-focused form of double entry system he described in the rest of his treatise. Yet, despite these apparent advantages and despite Pacioli’s text being very clear on [a] what a Merchant’s Ricordanze is; [b] on what it should contain; and, [c] on how it should be used, such a book does not appear to have been adopted by medieval merchants in the form Pacioli described. Given the fact that Pacioli’s system of double entry bookkeeping, as described in that same treatise, became the dominant bookkeeping system, it is surprising that the same did not occur with his Merchant’s Ricordanze. This paper, therefore, also seeks to offer some plausible explanations for this situation and concludes by suggesting how this line of research may proceed.

In order to clearly distinguish Pacioli’s Ricordanze from the other books mentioned in his treatise, the next section considers the principal account books of the system of double entry bookkeeping described by Pacioli.

THE PRINCIPAL ACCOUNT BOOKS OF PACIOLI’S SYSTEM OF DOUBLE ENTRY BOOKKEEPING

In Chapter 5 of his treatise, Pacioli wrote (emphasis added): “you need three books to make the work proper and easy” [Pacioli, 1494, f. 200r]:

- a Memoriale [Memorandum] – “a book in which the merchant shall put down all his transactions, small and big,
as they take place, day by day, hour by hour” [Pacioli, 1494, f. 200r];

- a Giornale [Journal] – where details of each transaction were organised and entered so as to facilitate the transfer of these details to appropriate accounts in the third book;

- a Quaderno [Ledger] – where all the accounts of the business are maintained.

Pacioli qualifies this ‘need’ for the three account books by saying that small businesses can exist without a Memoriale but that they must operate a Giornale and a Quaderno. Then, in Chapter 6, he reiterates the necessity of maintaining a Memoriale within any business which has many transactions, that employs the services of others, or operates at a pace that precludes the Giornale being kept neatly in real time. Thus, for all except small businesses, the Memoriale was considered by Pacioli to be an essential book; and, he believed that it was necessary for all businesses to maintain a Giornale and a Quaderno.

THE OTHER BOOKS PACIOLI SUGGESTS MAY OR SHOULD BE MAINTAINED

These three account books are not the only books described in Pacioli’s treatise. He mentions four others that may or should be maintained separately from these principle books. In the context of starting to maintain a set of books, in Chapter 2 an Inventory book is mentioned, though it is suggested that the inventory could be recorded on a sheet of paper which would [in Chapter 10] normally be kept in a box, chest, or pouch. In Chapter 35 three more are suggested, each of which should be maintained as a separate book: a book of important correspondence, a receipt book, and a Ricordanze.

Concerning the Ricordanze, Pacioli wrote first: “E similmente e buono havere un libro separato per li ricordi che si chiami Recordanze” – “And similarly, it is a good idea to keep a separate record book, called the Ricordanze.” [Pacioli, 1494, f209r]. He then states that the Ricordanze is used to record important items that it would be disadvantageous to forget, such as things you have lent temporarily to friends or neighbours. The book was to be consulted daily, at the end of the day, in order to ensure that everything had been done that should have been done. Once an item was no longer relevant, its entry in the Ricordanze was scored-out.

Thus, at a glance a merchant who maintained a Ricordanze
could see which of the items recorded within it were still outstanding. Supplementing what he wrote in Chapter 35, Pacioli then devotes Chapter 38\(^2\) to a description of the types of items to record within it. The chapter is entitled, "Casi che acade mettere ale recordançe del mercante" – "Things to enter in the Merchant's Ricordanze". Yet, despite its being dealt with in a separate chapter, as mentioned above, its inclusion in Pacioli's treatise has gone virtually unnoticed in the Anglo Saxon literature, not just by accounting historians and economic historians, but also by researchers specialising in the history of note-taking of that period, such as Soll [2010, pp. 367-368], who describes the books in Pacioli's double entry system but appears to assume that the material in the treatise about the Ricordanze is describing items in the Memoriale. The source of such oversights and misunderstandings can be traced to problems with the five 20th century translations of the treatise into English.\(^3\)

TRANSLATION PROBLEMS

Translation and interpretation issues are not uncommon with Pacioli's treatise. For example, none of the first three modern English language translators, nor their German counterparts, successfully translated the text of Chapter 24 of Pacioli's treatise [De Roover, 1943, p.149]. De Roover implies this was because Pacioli's language, "is sometimes so condensed as to be unclear", a point reiterated by others, including Hernández-Esteve [1994a, pp. 18-9] and Stevelinck [1994, p. 14]. Another example concerns the translation of Pacioli's Chapters 34 and 36, with respect to the summa summarium and the balancio del libro respectively. A number of authors have confused these

\(^2\) Chapter numbering ceases towards the end of Pacioli's treatise. Thus, in order that it be clear to which part of the treatise this paper refers, it is necessary to explain the chapter numbering adopted by the authors. After the final chapter heading in the treatise, Chapter 36, there are five sections of text:

(a) A summary of the rules and ways for keeping a ledger
(b) Things which should be entered in the books of a merchant
(c) Things which should be entered in the merchant's Ricordanze
(d) How to write down lire, soldi, denari, and other abbreviations
(e) How to make entries for debtors and how to make entries for creditors

Four of these sections are unnumbered in the treatise. For convenience and consistency, this paper adopts the numbering convention for this material used by Crivelli [1924], Von Gebsattel [1994] and Yamey [1994]: \([a], [b], \text{ and } [c]\) are labeled as Chapter 36, 37, and 38 and \([d]\) and \([e]\) are described as being in an appendix.

\(^3\) Geijsbeek [1914]; Crivelli [1924]; Brown and Johnston [1963]; Von Gebsattel [1994]; and Cripps [1995].
two terms, including Manzoni [1540], who used Pacioli’s treatise as the basis for his own. As Peragallo [1956, p. 389] makes clear, these are two different procedures and the understanding and then translations of these two chapters were hindered by “ambiguity of terminology” in the original resulting in the belief that “both the ‘bilancio del libro’ [balance of the ledger], and the ‘summa summarium’ [sum of sums], as described by Paciol[i], were trial balances and that the two terms refer to the same bookkeeping procedure.”

Anglo Saxon translators of Pacioli’s treatise have also struggled with their translations of Pacioli’s term, ‘Recordançe’. Yet, they had a clear warning that this may be a problem from Simon Stevin, the Dutch author of a bookkeeping text in 1604, who complained that use of the term ‘Memoriale’ in Italian texts was confusing and ought not be used [as it was in Pacioli’s bookkeeping treatise], for a record of daily transactions but, for a book of things to be remembered [Stevin, 1604 cited in Geijsbeek, 1914, p. 116] – a record book for important notes. That is, for a record book of the type Pacioli labelled a ‘Recordançe’.

This confusing suggestion, which would have switched the names of these two books, was ignored or overlooked by later writers of texts on double entry bookkeeping. However, it does indicate the existence of some ambiguity in terminology of which, in particular, later translators of Pacioli’s treatise should have been aware. Nevertheless, despite noting this in the text of his book containing his translation of Pacioli’s treatise, Geijsbeek [1914] forgets Stevin’s warning and translates the term ‘Recordançe’ as ‘Memoranda’ in Chapter 35, so wrongly distinguishing it from the book he calls a ‘Record Book’ in Chapter 38 and causing confusion for readers who have noted his use of ‘Memorandum’ as the translation of ‘Memoriale’ when describing the account books in his double entry system.

Geijsbeek was the first modern-English language translator of Pacioli’s treatise. Of the four other modern translations into English, one fails to give the book a name in either Chapter 35 or 38, another uses a different term in each chapter, and the other two called it a ‘record book’ in both chapters but without any capitalisation, though they did capitalise the names of the three account books.4

4 This apparent misunderstanding is surprising given the availability to all these translators of Gitti’s [1878] translation of the treatise into Italian. Gitti’s translation reveals unambiguously that the Ricordanze is an additional book that a merchant may maintain, and that it is that book which is mentioned in Chapter
The failure of three of these translators to use the same name for the Ricordanze in both chapters 35 and 38 leaves the readers of those translations to assume they are references to different books. As a result, they are deprived of the clarity of description of use and content of the Ricordanze that may be derived from combining the information given in these two chapters. By comparing the content of the Ricordanze and the Memoriale we can, however, relieve potential confusion and make clear that the Ricordanze is a different book to the Memoriale and therefore that it is inappropriate for ‘Recordançe’ to be translated as ‘Memoranda’ or Memorandum’.

**THE RICORDANZE AND THE MEMORIALE**

The Memoriale is a record of transactions that have occurred. Pacioli’s Ricordanze has a different purpose: it was to be used to record things important to the merchant in the future. Some of the entries in the Ricordanze may relate to past transactions but all the entries include aspects that need to be monitored for a period of time after they are recorded in the Ricordanze. They matter to the business and to its future and, as will be seen in the list of items the Ricordanze could contain, sometimes may do so significantly. Those in the Memoriale have finished and cannot impact the well-being of the business in the future. The focus of all items entered in the Ricordanze is thus upon events that will or may occur in the future rather than upon events that have already occurred.

The nature of the two books was also different:

- The Memoriale was an account book that was part of the double entry system, with annotations connecting it to entries made to the relevant accounts within the other books of that accounting system. It provided the detail of the transactions underlying those entries.
- The Ricordanze was not an account book and was not part of the accounting system. The entries within it were not necessarily connected to each other, nor to accounts in the double entry system and, in some cases, may not have been expressed in a way that would ascribe them a value [an essential element of entries in account books]. It was a device intended to provide and enhance managerial control over the business beyond what was possible from the inherent controls within a double entry accounting system.

35 and discussed in Chapter 38.
Further distinguishing the Ricordanze from the Memoriale is Pacioli’s choice of words in recommending use of such a book. He suggests that it is a good idea for businessman to use a Ricordanze. In contrast, as mentioned earlier in this paper, the Memoriale is described by Pacioli in Chapter 5 as one of the three principal books of the merchant and as being essential, for any but small businesses.

Having confirmed that Pacioli was referring to a separate book, was there something in the origins of the term ‘Ricordanze’ that may have confused readers of his treatise and caused them to ignore the text of Chapter 38?

RICORDANZE

‘Ricordanze’ was the name given to personal record books typical of Florence and the rest of Tuscany5 where they were in use from the late 13th century. They contained records of important family matters: “... autobiographies and citizen family histories which grew directly out of the books of memoranda in which businessmen recorded their personal affairs, particularly those which did not properly belong to the books of the partnership or company” [Hyde, 1979, p. 116]. Often autobiographical, containing personal information or parental advice for children, they were private and intended to be kept within the family.6

The Tuscan Ricordanze of the 13th, 14th, and 15th centuries “contained records of family events, world affairs, and business matters” [Edler, 1934, p. 242], including in some cases, details of debtors, creditors, and assets. The Medici, for example, maintained a Ricordanze for moveable and immovable property [Hirsch, 1963] and the account books of the Alberti Company of Florence included a Ricordanze dedicated to the records of purchases of real estate, farms, and farmland [De Roover, 1958, p. 9]. In some cases, these Tuscan Ricordanze were maintained for very specific purposes. In others, they contained details of all business activity, including the transactions that Pacioli indicated should initially be recorded in the Memoriale.

For example, Ricordanze were used by the Datini of Prato in the branch office in Avignon in the 1360s and 1370s before they started using double entry bookkeeping. Details of debtors and creditors in the Datini’s Ricordanze were copied to the Memoriale where they were collated and entered in the Quaderno

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5 Only one Venetian Ricordanze dating from before 1500 was known to have survived compared with over 500 from Florence [Grubb, 1994, p. 375]

6 See, for example, Jacks [1992]; Grubb [1994].
As illustrated in the CD accompanying their book, Arlinghaus et al. [2006] show that, in time, the use of a *Ricordanze* as the first book of entry in the accounting system ceased and the first entry was instead made in the *Memoriale*. Sometimes, as with the Alberti, Datini and Medici companies, these business-related *Ricordanze* were separate books. In other cases, such as that of the publisher, Girolamo Strozzi of Florence, the *Ricordanze* formed a section in one of the account books, in this case, the *Giornale* [Edler De Roover, 1953, p. 227]. Consequently, Tuscan *Ricordanze* were records of business affairs that came to also be used as personal diaries before the two aspects separated back into two separate record books, one of which focused upon the affairs of the business and can be seen as the forerunner of the *Memoriale* of Pacioli’s system of double entry, a book that was *not* used to record autobiographical data. The biographical and personal *Ricordanze* continued to be used for that purpose for centuries thereafter.

None of these forms of *Ricordanze* match the description Pacioli gave to this book. There may, therefore, be grounds for considering that Pacioli’s use of the term, ‘*Ricordanze*’ for the book he describes in Chapter 38 may have led to some confusion in the minds of those who read it.

**PACIOLI’S RICORDANZE**

Pacioli presents the merchant’s *Ricordanze* as a supplement to, rather than an integral part of the double entry system. It serves a very specific and appropriate purpose, highlighting the importance to merchants of exercising control outside the double entry system over assets [including cash] and liabilities, both existing and contingent. Any transactions recorded in it are short-term and soon reversed [Pacioli, 1494, f210v]; and the emphasis placed by Pacioli is upon ensuring they are not forgotten and, where relevant, that they occur, rather than [as would be the case with the *Memoriale*] noting that they have occurred and therefore ensuring that they are recorded properly in the account books.

There is no mention of the autobiographical detail that dominated many of the Tuscan books of this name. Pacioli instead focuses upon the assets of the owner and a range of business and personal activities that could have repercussions for the merchant if they were not continuously monitored:
1. Details of all household and business utensils\(^7\) of the merchant except things of insignificant value.

2. A note of all such items belonging to the merchant that are missing.

3. Explicit and full details of all sureties, obligations, or promises to pay that the merchant has made on behalf of friends.\(^8\)

4. Details of all goods or other things left with the merchant.

5. Details of all goods or other things borrowed by the merchant from friends.

6. Details of all goods or other things lent by the merchant to friends.

7. Details of all conditional transactions, such as agreeing to pay a certain amount for a shipment of goods providing that they are of good quality and to pay a different amount if the goods are not of good quality.

8. Details of all property which the merchant rents-out and of the rental agreements.

9. Details of short-term\(^9\) lending of anything to friends.

10. Details of short-term borrowing of anything from friends.

In order to comprehend the implications of the maintenance of a Ricordanze in the manner suggested by Pacioli, it is necessary to appreciate that, as suggested by Pacioli himself in Chapter 23: "... accounts are nothing other than the orderly records of the merchant's own devising, which provide information about all his business and tell him in a simple way whether his business is doing well or badly." [Pacioli, 1494, f206r, translated by Von Gebsattel, 1994, p. 73]

Nobes [1995, p. 380], discussing Pacioli's treatise, reemphasises this by stressing the important role of bookkeeping in administration, control and decision making in stating that: "The purpose of bookkeeping [at that time] was not primarily for the calculation of profit, let alone for the preparation of financial

\(^7\) Household utensils are not capitalised in Pacioli's double entry system [Pacioli, 1994, f205v]. Rather, they are charged to profit or loss as a household expense. They do not, therefore, appear as assets in the ledger [Quaderno]. They are, however, recorded in the Ricordanze.

\(^8\) While the literal translation of Pacioli's term, 'amico' is 'friend', it seems likely that he was using this term in the broader sense of someone whom the merchant knows rather than a close friend.

\(^9\) Pacioli suggests 8 to 15 days.
Sangster, *Pacioli's Ricordanze*

statements for users. *It was for the better administration of the business and better decision making by the owner-manager.*

Pacioli's description of the *Ricordanze* reveals that it has a similar purpose, indicating that it exists almost entirely so as to facilitate better administration of the business and better decision making by the owner-manager. It supplements the control facilitated through the double entry system, extending it and enhancing decision-making in aspects of the business and a merchant's personal affairs that are beyond the scope of the double entry system. Pacioli was not describing a Tuscan *Ricordanze* which mixed autobiographical entries and business-related entries, but a record book entirely dedicated to enhance the control of the merchant over his affairs – a book to record: "Annotations in narrative of affairs disparate in nature including terms of contracts, the hiring and dispatch of personnel, and the progress of specific jobs and so on..." [Melis, 1962, translation by the authors]. Pacioli did not invent the concept of such a book, nor was he the first to write about it. That honour rests with Benedetto Cotrugli and his *Il Libro dell'arte di mercatura*, a text written in 1458 for the small and medium-sized merchant [Jouanique, 1996, p. 271] in which, in accordance with what Pacioli said about the need for a *Memoriale* being related to the size of the business, Cotrugli wrote that all entries were made first in the *Giornale* and then in the *Quaderno*. More relevant to the present study, he also recommended that merchants use a *Ricordanze*: "[A book where] details must be kept of all contracts, commitments, exchanges, and whatever you do as soon as they are agreed, and before they give rise to journal entries, as there are many things that are contracted and not passed to the journal, though no doubt must be remembered and recorded for that purpose." (Translation from Hernández-Esteve [1992, p. 98] by the authors.) As with Pacioli's *Ricordanze*, Cotrugli's lay outside the double entry system and does not appear to have been intended to perform the function of a *Memoriale*.

Pacioli's description of the *Ricordanze* was considerably more detailed than Cotrugli's but, nevertheless, it does appear that they were both describing the same book – an aide memoire outside the double entry system which was in use at that time in Tuscany and, perhaps, beyond – Cotrugli had worked as a merchant in Tuscany [in Florence] but also did so in Naples, Barcelona, and Genoa [Jouanique, 1996, pp. 269-270].

However, maintaining a *Ricordanze* as described by Pacioli, does not ever appear to have been 'normal' practice in Venice.
While claiming that his treatise described the Venetian method of bookkeeping, it appears that in the final chapters he may have been attempting to improve the control a merchant has over his affairs beyond the then current practice, adopting a normative approach by suggesting a form of record that Venetian merchants should use, rather than one they did use. This use of his treatise to educate merchants about a ‘better’ practice is consistent with his stated aim [at the beginning of his treatise] to provide merchants with everything a merchant needs and is consistent with the manner in which he appears to have attempted to encourage Venetian merchants to adopt other control features typical of Tuscan businesses that were not commonly practiced in Venice, such as regular closing of the books [Pacioli, 1494, f207r] – Tuscan businessmen regularly balanced the accounts and produced balance sheets in order to assess their profit; Venetian merchants did not, assessing their performance primarily from the inventory account of each venture [Lane 1945, p. 167-8].10

Adding Pacioli’s Ricordanze to a full Pacioli system of double entry bookkeeping, including regular closure of the books, would have given merchants considerably greater control over their business affairs than the relatively laissez-faire approach to overall control that was the norm in Venice at that time.

Further justification for including a chapter about a book called a ‘Ricordanze’ in a treatise on double entry bookkeeping lies in the fact that, as indicated by Cotrugli, there is a connection between a Ricordanze of this type and the double entry system: if it transpires that an item entered in the Ricordanze changes status from something to be aware of to something that affects the state of affairs of the business, it may be necessary to record details of the item in the account books. Thus, for example, if a merchant agreed to underwrite a business venture, he would have entered details of this guarantee in his Ricordanze. If the venture failed, the merchant would need to record the resulting expense in his account books. The relationship of each of the items recorded in Pacioli’s Ricordanze to the account books is presented in the next section.

**THE RICORDANZE AND THE ACCOUNT BOOKS**

Based on the information provided by Pacioli and applying common sense where information is omitted, the following is

10 See also De Roover [1956, p.157]
known or may be deduced about these items:

- When utensils listed in the *Ricordanze* [Items 1 and 2] were declared lost, sold, gifted, or scrapped, a note to that effect was made in the *Ricordanze* beside their entry in that book. No entry recording these events was entered in the account books.\(^{11}\)

- Contingent liabilities [sureties], obligations, and promises to pay on behalf of someone else [Item 3] on a specific future date would be scored-out when no longer relevant. If they had to be paid, appropriate entries would be made at that time in the account books; similarly for receipts of this category.

- Temporary arrangements [Items 4-6] were entered in the *Ricordanze* so that they could be monitored. Should they become undeliverable or unrecoverable, any compensation due, paid or received would be entered in the account books and the item crossed out in the *Ricordanze*.

- When details concerning conditional transactions [Item 7] were clarified, the entry in the *Ricordanze* was scored-out and an appropriate entry was made in the account books.

- The details of rental agreements [Item 8] never appeared in the account books, though, of course, the rental payments would have been entered in the account books as they occurred.

- While short-term lending and borrowing [Items 9 and 10] were not entered in the account books, when the *Quaderno* was closed in order to produce a balance sheet, details of these items which were still outstanding might be entered in the account books if the item lent or borrowed was cash.

Having these short-term financial items and items of an initially non-financial nature which might ultimately become important all in one book dedicated to this aspect of business must have made them far easier to monitor and control than if they were buried in the midst of everything else in the *Memoriale*.

**CONCLUSION**

On the last page of his bookkeeping treatise Pacioli includes

\(^{11}\) Though the original purchase transaction would have been entered in the account books, at which time it would be treated as expenses and therefore charged to profit or loss [Chapter 22].
a section of text entitled, "Things which should be entered in the Merchant's Ricordanze". In this text, Pacioli describes how to use a record book based upon the Tuscan Ricordanze but with a very much more business-focused use and utility than is typically found in Tuscan Ricordanze of the 15th century. That is not to say that Pacioli invented his own version of this book – Melis [1962], for example, reports their use and Cotrugli's description [1458] predates Pacioli's by 36 years but, Pacioli's is the first and only known detailed description to have been included in a treatise dedicated to describing an accounting system based on double entry bookkeeping.

The strength of Pacioli's Ricordanze was its utility as an aide memoire for a number of items listed by Pacioli that would not be recorded in the double entry system, or which may have bordered upon invisibility within it. As such, it is not difficult to understand why Pacioli felt it was worthwhile promoting use of this book in his treatise, especially as it was printed in Venice, a region where use of any variant of the Tuscan Ricordanze appears to have been, at best, extremely limited. It would have assisted merchants in following the advice offered by Benedetto Cotrugli at the beginning of this paper and it would have made daily monitoring of those items considered important to remember far easier than if they were scattered among the entries in the [clearly far larger] Memoriale. Furthermore, while Pacioli's system of double entry did not include the mandatory maintenance of his Ricordanze, by doing so merchants were provided with a means to keep the three principal books of their business free of the clutter of control-related detail which is, instead, recorded 'at a distance' in the Ricordanze.

All other things being equal, such a boon for merchants would be expected to have been widely adopted even, perhaps, more willingly than Pacioli's system of double entry bookkeeping, but it does not appear that it was. Perhaps, merchants saw no need to maintain a separate book dedicated to this purpose and simply recorded such details in sections of their account books, something that we know did occur in some cases, or in informal records. These may be the most plausible explanations for the apparent lack of any significant adoption of Pacioli's Ricordanze but, even examples of its use as a distinct section of an account book identified in the literature are scarce.

It is also possible that the lack of adoption of Pacioli's Ricordanze was due, at least in part, to its absence from many of the texts based upon his treatise in the same way as Pacioli's explanations, advice, and his material on audit, corporate gov-
ernance, management, and ethics were omitted from many of those works which were based upon his treatise. However, while both these suggestions may offer explanations for this situation and, while we can explain why Anglo Saxon researchers may have failed to notice Pacioli's *Ricordanze*, we are left unable to do more than speculate as to why it apparently failed to be widely adopted as a separate record book in the manner described by both Pacioli and Benedetto Cotrugli.

Further research in this area is needed before there is any likelihood of fully explaining what happened in practice at the time and why the keeping of a *Ricordanze* did not spread. The most appropriate place to start is likely to be in the archives of Venice – where the merchants for whom he wrote his treatise were based – and in the other 15th and 16th century commercial centres of Italy, seeking evidence which indicates where the information that Pacioli recommended be recorded in a *Ricordanze* was kept by the merchants who adopted Pacioli's double entry system.

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OBJECTIVES OF FINANCIAL REPORTING, ABORIGINAL COST, AND POOLING OF INTERESTS ACCOUNTING

Abstract: Through the years, pooling of interest accounting was criticized as contrary to the decision usefulness objective of financial reporting and potentially misleading to stockholders and creditors, the assumed principal users of financial reports. This paper does not dispute those criticisms. It demonstrates, however, that there were some very good reasons for permitting pooling accounting for certain business combinations when the method was developed in the 1940s. At that time, the basic objectives of financial accounting encompassed stewardship and decision usefulness for multiple users, including public utility regulators and public policy makers. Pooling accounting developed in part to satisfy the information needs of public utility regulators who favored aboriginal (original historical) cost to determine the utility rate base; additionally, it was favored by public policy makers who sought lower utility rates (prices) to foster social and economic goals.

INTRODUCTION

Most academic and practicing accountants are familiar with the recent theory controversy over the financial reporting of business combinations. A major part of this controversy centered on whether to continue to require or permit pooling of...
interests accounting under Accounting Principles Board [APB] Opinion No. 16, “Business Combinations” [APB 16, 1970] for business combinations brought about by exchanges of common stock. Pooling accounting was criticized as contrary to more basic accounting concepts [see, e.g., Wyatt, 1963, pp. 92-95, 105; Kam 1990, p. 379] and/or potentially misleading to external financial report users such as stockholders and creditors [see, e.g., Seligman, 1982, p. 420] and/or contrary to the stewardship and/or decision usefulness objectives of financial reporting [see, e.g., Martinez-Jerez, 2008, p. 6]. Among other defects, critics of pooling accounting [see, e.g., Briloff, 1967, pp. 490-495; Lintner, 1971, pp. 106-107; and Davis, 1990, p. 104] noted that it grossly understated (1) the cost of such combinations; (2) the carrying values of acquiree net assets at the combination date; and (3) the expenses from using up those net assets subsequent to the combination date.\(^1\) The controversy was largely resolved in the United States by Statement of Financial Accounting Standards No. 141, “Business Combinations” [SFAS-141, 2001],\(^2\) and internationally by International Financial Reporting Standard No. 3, “Business Combinations” [IFRS-3, 2004], which prohibited pooling accounting and required purchase accounting for all business combinations.\(^3\) For convenience, the subsequent discussion of accounting standards is in terms of U.S. GAAP.

This paper does not dispute these aforementioned criticisms of pooling accounting. Rather, it demonstrates that, from a historical perspective, there were some very good reasons for requiring or at least permitting pooling accounting for stock-for-stock combinations of public utility companies when the method was developed in the 1940s. At that time, the basic objectives of financial accounting were viewed more broadly than now to

\(^1\) Of course, corporate management of unregulated industries and their promoters often favored pooling accounting for these very reasons; it usually reported stock-for-stock combinations at lower book values rather than at higher fair values, thereby resulting in reporting lower expenses and higher earnings after the combination.

\(^2\) Somewhat inconsistently, shortly after prohibiting pooling accounting for business combinations, the FASB prescribed a similar accounting method for certain combinations of not-for-profit organizations. However, the FASB refers to this prescribed accounting method as the carryover method, not the pooling method. See SFAS 164, 2009, paras. 6-7, in ASC Section 956-810-20.

\(^3\) To harmonize terminology internationally and reflect some more recent changes in the way combinations are recorded, purchase accounting is now called the acquisition method. See Financial Accounting Standards Statement No. 141 (Revised), “Business Combinations” [SFAS 141(R), 2007a], in FASB Accounting Standards Codification (ASC) Section 805.
include providing information to a set of unknown users with multiple needs, not just stockholders and creditors; importantly, the basic objectives of financial accounting included providing information for rate making by utility regulators and for fostering certain social and economic goals by public policy makers. In the 1940s, some of the above enumerated defects of pooling accounting were viewed as strengths, at least by utility regulators and public policy makers.

More specifically, because it reported stock-for-stock combinations at historical cost book values rather than at usually higher fair values, pooling accounting conformed to the concept of aboriginal (or original historical) cost and prudent investment theory in utility regulation. As a result, it usually resulted in lower utility rate bases; in turn, the lower rate bases resulted in lower utility rates (prices), which were viewed as consistent with social and economic policies of encouraging more widespread use of electricity to facilitate economic growth and enhance living standards of the masses. The remainder of this paper is organized in the following sections:

(a) Overview of tax and financial accounting for stock-for-stock combinations
(b) Rate making information needs of regulatory authorities
(c) Rationale of aboriginal cost for regulatory purposes
(d) Rationale of pooling accounting for regulatory purposes
(e) Changing perceptions of objectives of financial reporting
(f) Summary and conclusion
(g) Addendum: Recent combinations of health care organizations

OVERVIEW OF TAX AND FINANCIAL ACCOUNTING FOR STOCK-FOR-STOCK BUSINESS COMBINATIONS

Section 368 of the U.S. Internal Revenue Code (IRC) deals with business combinations, which it refers to as corporate reorganizations. Turnier [1976, p. 911] notes that since 1918, the IRC provides for nonrecognition of gain or loss on stock or securities received incident to nontaxable corporate reorganizations; since 1924, the IRC provides for carryover basis, whereby the tax basis of the old stock or securities becomes the tax basis of the new stock or securities in nontaxable corporate reorgani-
zations. Section 368 includes detailed tests as to what qualifies as a nontaxable corporate reorganization. Under Section 368, many if not most stock-for-stock business combinations are nontaxable corporate reorganizations, with the acquiree’s tax basis of the stock or net identifiable assets carried over to the acquirer.

Until the 1940s, all business combinations, including nontaxable stock-for-stock business combinations, were subject to purchase accounting for financial reporting purposes. As a result, the acquirer reported the identifiable net assets of the acquiree at fair value for financial reporting purposes, with the residual reported as goodwill. On the other hand, nontaxable stock-for-stock business combinations were subject to carryover basis for tax purposes. Sapienzo [1962, pp. 277-278] suggests that pooling accounting is merely an adaption of the tax treatment of nontaxable business combinations for financial reporting purposes:

If a combination is accounted for tax-wise in one manner, namely [with carryover basis] as [a] pooling, and as a purchase in financial reports, pressure to create an accounting method to conform to the tax law arises. The concept of pooling is the natural outgrowth.... It is the author's [Sapienzo's] view that the pooling concept in accounting ... results, in part, from tax law. The pooling

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4Turnier [1976, p. 911] suggests that Congress granted nonrecognition of gain or loss for qualifying reorganizations principally from "... a desire not to discourage economic restructurings which otherwise would have occurred in the course of the orderly evolution of the nation's economy." He [1976, p. 911] notes that from 1921 to 1924, the Code inadvertently permitted basis step up even though it permitted nonrecognition of gain or loss.

5Until 1953, acquirers could write off goodwill immediately against additional paid-in capital for financial reporting purposes. Additionally, until 1953, some acquirers reported some or all of the difference between the book value and the fair value of the acquiree as goodwill when it was impracticable to allocate that difference to individual identifiable tangible and intangible net assets, with just the residual reported as goodwill. See Wyatt, 1963, pp. 30, 38-39. (However, this practice was presumably more common for unregulated than for regulated companies, because regulated companies made every effort to allocate the difference in order to obtain a stepped up rate base.) Until 1970, acquirers could choose not to amortize unimpaired goodwill. See APB 17, 1970, para. 14. As a result, post-combination net income might be almost the same under purchase and pooling accounting. (Again, however, this result was more common for unregulated than for regulated companies.) Until 2001, some acquirers reported some or all of the difference between the book values and the fair values of acquiree identifiable intangible assets as goodwill rather than allocated those differences to individual identifiable intangible assets, with just the residual reported as goodwill. See SFAS 141, 2001, para. B162-B164.
concept allows parallel treatment in tax and financial reports, in accounting for business combinations.

The next section of this paper discusses the rate making information needs of public utility regulatory authorities. The heart of the paper is the following two sections that discuss, respectively, the rationale of aboriginal cost for utility regulatory purposes, and how pooling accounting developed as a logical outgrowth of the increasing use of aboriginal cost for regulatory purposes. The next section considers the changing perceptions of the objectives of financial reporting, followed by a summary and conclusion section. An addendum discusses how pooling accounting might enter into the debate as to the reasonableness of third-party reimbursement rates following combinations of health care organizations.

RATE MAKING INFORMATION NEEDS OF REGULATORY AUTHORITIES

Rowe and Anderson [1993, p. 7] note that in the late nineteenth century, state legislatures across the United States imposed regulation over the then rapidly developing electric utility industry. State legislatures understood that a utility was a natural monopoly—i.e., because of economies of scale, the cost of service is lower with a single provider than with several utility companies competing with one another. Rowe and Anderson [1993, p. 7] refer to a “regulatory compact” that state legisla-
tures established to impose responsibilities on both the utilities and the state:

Utilities were obliged to provide universal, adequate service and submit themselves to rate and service regulation so customers would be protected from the abuses of monopoly power (high prices and poor service). States agreed to afford companies an opportunity to earn a reasonable return on prudent investments. Regulation was imposed as a substitute for competition.

Federal regulation of natural monopolies started at about the same time. For example, the Interstate Commerce Act of 1887 established the Interstate Commerce Commission to regulate railroads. Other natural monopolies ultimately subject to state and/or federal regulation include natural gas, water, street cars, bus lines, trucking, and airlines.

Joslin and Miller [1957, p. 1035-1036] note that the basic theory of regulation focuses on setting utility rates at a level sufficient to give the utility a “reasonable” rate of return on its investment. If the rate is set too low, it is deemed to be “confiscatory,” to involve a “taking of private property for public use without just compensation,” and is a violation of the due process clause of the fourteenth amendment. Leventhal [1965, p. 995] adds that as a result of the 1944 Hope Natural Gas case, another concern of utility regulation is making sure that the rate of return is sufficient for a utility to accumulate and attract the capital needed for the maintenance and growth of productive assets to satisfy the public’s demand for service. Bernstein [1937, p. 129] elaborates that rate making “...should also be sufficiently responsive to changing economic conditions to prevent an undesirable divergence of utility rates from the costs of producing utility services.”

Rate setting involves fixing the selling price of the services provided by the utility, which directly affects the amount of revenues, and determining the allowable expenses to be deducted.

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9Interestingly, Leventhal [1965, p. 995] notes that as a result of the Hope case, “... the leading cases suggest that the primary legal standard offered by the [U.S. Supreme] Court is the standard of comparable earnings. This standard, too, aims at attracting and holding capital, but it alone permits direct examination of the ratio between the earnings of a utility and its net worth in comparison with that ratio in companies of similar risk.” However, the measurement of net worth remains controversial, with different regulatory authorities favoring aboriginal cost, prudent investment, and fair value. See also Sparrow, 1965, p. B329.
from revenues to derive the income or return. Rate making requires guidelines to measure the income or return, which is the numerator, and the investment or rate base, which is the denominator, and then ascertaining whether the resulting rate of return on investment is reasonable.\textsuperscript{10}

According to Joslin and Miller [1957, p. 1048], public utilities traditionally argue that ownership of property includes the right to earn a return on it; that this return, since it is regulated by the state, has to be a “fair” return on the “fair value” of the property; and that unless a utility is afforded the opportunity to earn a fair rate of return on the fair value of the property, the property is being confiscated without due process, comparable to the state appropriating physical assets without payment of just compensation.

In Smyth v. Ames (1898), the U.S. Supreme Court prescribed use of fair value of utility property to measure the rate base.\textsuperscript{11} Requiring use of fair value to measure the rate base was reaffirmed by the U.S. Supreme Court in several subsequent cases until the early 1940s. For example, in the 1923 Southwestern Bell Telephone Company case,\textsuperscript{12} the U.S. Supreme Court reversed a state supreme court’s order and held that the rate base should reflect the [fair] value of the property at the time the rates were set, not the original cost, thereby reaffirming Smyth v. Ames; because the property had increased in value, the U.S. Supreme Court concluded that Southwestern Bell was entitled to rates that reflected the benefit of the increase.

Initially, the fair value of the property was estimated as the present value of the estimated fair return on the property. Joslin and Miller [1957, pp. 1048-1049, fn. 62] and others note the cir-

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\textsuperscript{10}This paper is concerned principally with showing how pooling accounting evolved as a way to facilitate the increasing use of aboriginal cost valuations of the rate base—i.e., the denominator of the rate of return calculation. Of course, the valuation of utility assets in the rate base at aboriginal cost rather than at fair value subsequently affects the measurement of depreciation expense and income (return)—i.e., the numerator—of the rate of return calculation. This paper emphasizes the measurement of the denominator—the rate base—not the income numerator.


Circularity inherent in arguing that a utility has the right to earn a fair rate of return on the fair value of its property measured this way, because the fair value of property reflects the earnings that can be obtained from its use. Utilities overcame this circularity by using estimated reproduction cost of existing property to approximate its fair value. However, Smith [1946, p. 295] notes that estimated reproduction cost of existing property is a poor measure of its fair value because most existing utility property would not be replaced with the same property due to technological improvements; rather, it would be replaced, usually at lower cost, with more efficient property. Additionally, the process of estimating reproduction cost was extremely expensive and time consuming, as was the process of arguing before regulatory authorities and courts as to the reasonableness of estimates of reproduction cost to measure the rate base.13

More important, in the Hope Natural Gas Case,14 the U.S. Supreme Court reversed a decision of the U.S. Court of Appeals and held that the Federal Power Commission (FPC) is permitted [but not required] to use historical cost to measure the rate base.15 However, Joslin and Miller [1957, p. 1048] note that “... rate base/rate of return is still the dominant concept in rate regulation.... Rate making is still, despite the end-result language in Hope, a ‘fair return’ on a rate base.”

Therefore, the issue comes down to the valuation of utility property in the rate base. Traditionally, utilities seeking higher

13See Smith [1946, p. 295]. Smith [1946, p. 295] notes that “... probably 300 man-years were required by the company and the Wisconsin Commission to make a [reproduction cost] valuation of the Wisconsin Telephone Company. The Ohio Bell Telephone Company case was in process fourteen years, the New York Telephone case a like period of time, and the Illinois Bell Telephone case twelve years. He [1946, p. 295] describes this attempt to determine fair value by using reproduction cost of existing property as “... probably the greatest hoax ever perpetrated on the American consuming public.” Earlier, Healy [1938, p. 6] criticized reproduction cost for similar reasons: “When one realizes the complexities and antipathies which reproduction appraisals have engendered in the field of rate regulation, one regrets its use in balance sheets. It is based on a misapplication of the doctrine of Smyth v. Ames. Its principal products will be confusion and deception.”


15As a result of the Department of Energy Organization Act of 1977, various energy-related federal agencies were consolidated into a newly-formed Department of Energy (DOE). The FPC (FPC) was retained as a separate independent regulatory body within the DOE; however, it was renamed the Federal Energy Regulatory Commission (FERC).
rates favor valuation at fair value whenever it is higher than aboriginal cost, with fair value estimated as present value of estimated earnings, or as estimated reproduction cost of existing property. On the other hand, consumer advocates seeking lower rates traditionally favor valuation at aboriginal cost, which is usually lower than fair value.\(^{16}\)

In addition, when reviewing a request to recover an investment in utility assets through inclusion in the rate base, regulators traditionally rely on two tests: (1) the prudent investment test, and (2) the used and useful test. According to Hearth et al. [1988, pp. 16-17], under the prudent investment test, if regulators conclude that a utility made an imprudent investment in utility assets based on then available information, some or all of that investment may not be recoverable by inclusion in the rate base.\(^{17}\) The used and useful test asks whether the investment will

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\(^{16}\)Brundage [1950, p. 388] notes a reversal of positions in the fair value versus aboriginal cost debate to measure the rate base: "[T]he relatively high initial cost of the transcontinental railroads and the decline in the general price level during the last quarter of the nineteenth century led the shippers [as consumers] and the regulatory commissions during that period to take the position that the railroads [and other utilities] were not entitled to a fair return on original cost but only on the then present [fair] value of the property...The Supreme Court in Smyth v. Ames upheld this view in 1898. Since the turn of the [twentieth] century, however, the price trend has been upward and the commissions, changing their position, have tried to hold the utilities down to actual cost. At the same time the railroads naturally switched their position and insisted on the higher replacement values [or fair] values. The Supreme Court continued to hold to its position in Smyth v. Ames [until 1944] ...." See also Horne [1942, p. 252].

\(^{17}\)Hearth et al.[1988, p. 17] add that by satisfying the prudent investment test, a utility can usually recover some or all of the sunk costs of a canceled plant but not necessarily a return on that sunk cost. They [1988, p. 17] cite the New England Power Company case, which was upheld by the federal courts, where the Federal Energy Regulatory Commission (FERC) ruled that investors and ratepayers jointly share the risks and potential benefits from constructing new plants, hence should share in the costs of plant that is canceled before completion; however, the utility should not earn a return on that sunk cost, even if the utility acted prudently. See New England Power Company v. Federal Energy Regulatory Commission, 668 F. 2nd 1327 (1981).

On the other hand, in several states, utilities were denied any recovery of sunk costs of cancelled plants. For example, Hearth et al.[1988, p. 17] note that the Ohio Supreme Court overturned an Ohio Public Utilities Commission ruling that Cleveland Electric Illuminating Company was entitled to recover the sunk costs of three cancelled nuclear power plants. The Ohio commission reached its decision by applying both the prudent investment test and the used and useful test, and also argued that its decision was consistent with the vast majority of decisions in other jurisdictions. However, the Ohio Supreme Court rejected this reasoning and held that, under Ohio law, all sunk costs of canceled investment were extraordinary losses and not recoverable. Hearth et al.[1988, p. 17] note that the Ohio Supreme
be used by the rate paying public, and will it be useful to them. If used and useful, the utility is allowed to recover its investment; if not used and useful, the utility is not allowed to recover that investment.¹⁸

Notwithstanding prudence in the decision to invest, Priest [1966, p. 307, italics added] notes that "[L]oss of value arising out of deflation, or obsolescence, or changed economic conditions, will inevitably be recognized for the purpose of making utility rates." For example, in the Market Street Railway case,¹⁹ the U.S. Supreme Court reaffirmed the decision of the California Railroad Commission to set the rate base of a San Francisco street railway company at $7,950,000—the price that company offered the property for sale to the city—although its book value was $41,768,505 and its estimated reproduction cost was $25,000,000, and noted the following:

... it may be safely generalized that the due process clause never has been held by this Court to require a commission to fix rates on the present reproduction value of something no one would presently want to reproduce, or on the historical valuation of a property whose history and current financial statements showed the value no longer to exist, or on an investment after it

¹⁸ Utility plant may satisfy the used and useful test without being currently in use, sometimes without ever being in use. For example, Priest [1966, p. 310] notes that a vintage electric generating plant that is less efficient than modern plants will be included in the rate base if it is being maintained in condition as a standby reserve and is being used from time to time. Such a plant will not be included in the rate base, however, if it is not being properly maintained and has not produced electricity over a lengthy period.

In other situations, utility plant may satisfy the used and useful test without ever being in use. For example, Hearth et al.[1988, p. 17] note that many regulatory bodies have used the used and useful test in allowing utilities to recover the sunk costs of cancelled nuclear generating plants that, by definition, is never used by the rate paying public. But they [1988, p. 17] also note that in applying the prudent investment and used and useful tests, regulators usually examine three decisions: (1) to begin construction; (2) to incur costs during construction; and (3) to cancel the plant. According to Hearth et al.[1988, p. 17], regulators occasionally conclude that utilities waited too long before canceling plants and prohibit recovery of sunk costs incurred beyond some earlier date.

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has vanished, even if once prudently made, or to maintain the credit of a concern whose securities already are impaired. The due process clause has been applied to prevent governmental destruction of existing economic values. It has not and cannot be applied to insure values or to restore values that have been lost by the operation of economic forces.

Accordingly, under the prudent investment test and the used and useful test, investment might be measured at some estimate of fair value, aboriginal cost, or some adjusted historical cost.

RATIONALE OF ABORIGINAL COST FOR REGULATORY PURPOSES

Stickney et al. [2010, p. 835] define aboriginal cost in public utility accounting as "... the acquisition cost of an asset incurred by the first entity devoting that asset to public use." They [2010, p. 835] note that "[i]f regulators used a different cost basis, public utilities could exchange assets among themselves at ever-increasing prices in order to raise the rate base," which would be followed by raising the regulated prices based on that rate base.20

Closely related to the concept of aboriginal cost and the prudent investment test is using prudent investment theory to measure the rate base. As expounded in his famous dissent in the 1923 Southwestern Bell case, U.S. Supreme Court Justice Louis Brandeis argued that what the investor devotes to the public use (and for which s/he is entitled to a fair return thereon) is not specific property, whose value fluctuates due to changing prices but diminishes due to depreciation; rather, Justice Brandeis favored using the objectively ascertainable amount of invested capital to measure the rate base, usually measured at aboriginal cost [see also Carpenter, 1950, pp. 374-75; and Uroksky, 2009, pp. 611-614]. According to Brandeis’ prudent investment theory, the investor is entitled to receive a return on the amount of capital prudently invested in the utility enterprise, and no more. Such a rate base would be definite, permanent, and high enough to yield the investor an adequate return, without allowing the investor to reap profits on money s/he never invested. However, as Carpenter [1950, p. 375] notes, despite the

20Bonbright [1945, p. 444] notes that "... despite all attempts to ridicule an original-cost rate base by calling it 'aboriginal cost,' or other funny names, such a rate base is required as a general rule by the logic of the prudent investment principle."
cogency of Brandeis’ arguments, the U.S. Supreme Court did not sanction use of aboriginal cost or the prudent investment theory to measure the rate base until the 1944 Hope Natural Gas case.21

Bonbright [1945, p. 442] distinguishes the fair value standard from the concept of aboriginal cost under the prudent investment theory as follows:

The “fair value” standard undertakes to make the rate base depend on the value of the utility property at the time when the rates are being fixed, however much this value may deviate either from original construction cost or from actual cost to the present owner. The “prudent investment” standard, on the other hand, uses as its criterion not the value but rather the cost of the property devoted to the public service so long as this cost may be deemed to have been prudently incurred.

For public utility rate making purposes, the prudent investment theory implies that a fair return is allowed only on prudent investments in utility property. As Bonbright notes [1945, pp. 442-443, italics added], “[o]rdinarily, the relevant cost is the cost of constructing the properties used and useful in the public service, and this cost, save in a somewhat unusual case, means the same thing as the cost of the property when first devoted to the public service so long as this cost may be deemed to have been prudently incurred.”

However, public utilities argue that whenever utility property has been transferred to another company at a price in

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21 There have been many different ways of applying the prudent investment theory. For example, Carpenter [1950, pp. 389-394] notes that during its first seven years, the Pennsylvania Public Service Commission adopted the following different forms of prudent investment: (1) undepreciated original cost; (2) depreciated original cost; (3) book cost less book reserve; and (4) invested capital.

Baur [1944, pp. 506-507] argues that prudent investment should be defined as original cost less accumulated depreciation due to physical wear and decay and to various functional causes such as obsolescence. He criticizes prudent investment as original cost without deducting depreciation, as follows: “[O]nce a corporate investment is made, it must subsequently be fully maintained or it will be impaired or dissipated. Such full maintenance consists of ordinary repairs plus proper provisions for depreciation as it accrues, both charged regularly to operating expenses, which are in turn included in rates paid by consumers. If the total original cost of plant were included in the rate base [without deducting accumulated depreciation], the company would get a return not only on its own actual or unimpaired investment, but also on the amount of consumer contribution provided in the rates for the purpose of conserving the corporate investment [i.e., for the purpose of recovering a portion of the original cost equal to accumulated depreciation].”
excess of its original cost, this higher resale price is the new cost that should be substituted for the original cost as the measure of the rate base; utilities argue that the rate base should reflect this new cost of the property to the present owner, not the original owner. The fallacy of this argument, according to Bonbright [1945, p. 443], is that consumers of public utility service would be compensating investors not only for building plants devoted to public service but also for buying plants from other persons who have already built them and who have already been compensated for devoting them to public service:

Once these utility properties have been built and have been put into public service, investors who buy them later from their original owners are simply taking over these former owners’ claims to a return on the capital devoted to the public service. We have here essentially the same situation that applies when an investor buys in the open market some shares of stock in a public utility company. Such an investor may have bought this stock at a very low price ... or at a very high price.... In either case, moreover, the price that he paid may have been a rational or reasonable price in the light of then current expectations of earnings and dividends. Yet, this investor could hardly adduce the high price that he may have paid for his stock as an argument for public utility rates designed to make the stock worth what he paid for it. On the other hand, a group of consumers would hardly be allowed to establish the low price which a stockholder paid for his stock in support of a low rate base.

Bonbright [1945, pp. 445-46] notes that a step up of the rate base of productive assets for rate making purposes may be justified incident to combinations brought about by cash purchases:

In an ordinary cash purchase of a utility property from former owners who have been able to exact a price in excess of original cost, the new owner can make the plausible argument that, unless he is granted a rate base higher than that which would be accorded to the very same property in the hands of the former owners, his purchase would impose upon him a financial loss, and this is a potent argument for recognition of the excess acquisition adjustment cost [in the rate base] wherever the purchase of the old property by the new owner at a price in excess of what would be the old
owner’s rate base was required in the public interest.\textsuperscript{22}

However, Bonbright [1945, p. 446] argues that no step up above aboriginal cost of productive assets for rate making purposes is justified for combinations brought about by exchanges of shares.

... if the old owners of the properties, instead of selling out, have merely pooled their separate interests [in a stock-for-stock business combination], thus retaining as a group the same assets that they had before the consolidation, they are hardly in a position to urge that they must receive an enhanced rate base because of the price that they have been compelled to pay themselves in order to induce themselves to consent to the merger. Indeed, ... it would seem probable that the transactions were of great benefit to the security holders even without reference to any claim for an enhanced rate base.

Bonbright [1945, pp. 445-446] elaborates that combinations brought about by exchanges of stock rather than by cash purchases “... lacked the characteristic of an ordinary purchase and sale whereby a new owner takes over the properties while the old owner takes his cash and gets out.” To Bonbright [1945, p. 445, italics added], such combinations “... are mere pooling of interests, in which each old stockholder surrenders his stock in his separate company in exchange for stock in the enlarged new company.”

Interestingly, perhaps the most prominent advocate of aboriginal cost of productive assets for rate making purposes was Franklin Delano Roosevelt, first as Governor of New York State between 1929 and 1933, then as President of the United States between 1933 and 1945. According to Tobey [1997, p. 61], Roo-

\textsuperscript{22}According to Bonbright [1945, p. 444], this is an exception where prudent investment theory uses a valuation in excess of aboriginal cost for measuring the rate base: “This exception applies to situations where a utility property has been acquired by new owners as a necessary step in improving the public service, by making a better, more efficient unit through the combination of existing utility properties. In such a case, if the new owner was compelled to pay more than original cost in order to accomplish this socially desirable objective, and if the public benefit resulting from the acquisition of the property is more than enough to offset the public burden of the higher rate base, the inclusion in the rate base of the necessary purchase price seems to me to be in harmony with the ‘prudent investment’ principle.’”

On the other hand, Priest [1966, p. 319] notes that “... when utility property is acquired at less than its original cost, the rate base is measured by the purchaser price: “The theory is that it would not be ‘fair’ to impose an original-cost rate base on consumers in such circumstances.”
sevelt sought to further social modernization and enhance the quality of life and living standards of the masses by reducing the cost of residential electricity and thereby encouraging its more widespread use by homeowners. At a time when perhaps only 20 percent of private homes in the United States were electrified and electric rates were substantially higher for homeowners than for industry, Roosevelt reasoned that the more widespread use of electricity in the home would further social modernization, reduce poverty, and lessen the drudgery of housekeeping. In Roosevelt's words,

[w]e all know that the great magic of electricity was originally used for lighting purposes only. It then spread to the factory for industrial uses. Now, however, the time has come when electricity should be carried right into our very homes so as to lighten the drudgery of housekeeping. You and I know that scores of electrically operated household appliances have been invented. Of course, the housewives of the State cannot enjoy these new inventions as long as the rates for [electric] current continue to run as high as they now do.23

Tobey [1997, p. 95] notes that to Roosevelt, "[p]rogressive social modernization meant more than the material improvement of lives. It meant also the moral improvement of life, as a matter of social justice, through technology." He [Tobey, 1997, pp. 59-60] also notes that Roosevelt favored using aboriginal cost [although he used the term cash cost rather than aboriginal cost] as a means of reducing the rate base and with it the rates utilities charge residential consumers. As Tobey [1997, pp. 59-60] notes,

Court cases established that the utilities could use "replacement cost" as the basis for determining fair profits and rates. This rule permitted the utilities to bloat their capitalization, because the costs of electric plants in the future would be higher (if only because of general inflation). Roosevelt in turn pushed for statutory determination of "cash cost" [i.e., aboriginal cost] as the basis for determining profit and rates. Profit ought to be determined on the basis of the actual cash capitalization made by the companies in building their electrical plants and distribution system. This, after all, was the real debt being paid. Court permission to base profit on

23Gubernatorial campaign address, Syracuse, New York, October 22, 1930, p. 20, as quoted by Tobey, 1997, p. 61, fn. 43.
future replacement costs meant that companies could calculate profit on fictitious sums they had not really spent. Rates were correspondingly higher.

Thus, using aboriginal cost for measuring the rate base was viewed by economic policy makers such as Roosevelt as a means of fostering the social and economic policies of enhancing living standards by reducing utility rates.

RATIONALE OF POOLING ACCOUNTING FOR REGULATORY PURPOSES

Wyatt [1963, p. 22] notes that the term *pooling of interests* was used initially to describe transactions involving combinations of closely related utility companies that sought to include its assets in the rate base at fair value as of the combination date. He [1963, p. 22] also notes that the FPC held that valuation at fair value was improper and that no new values should attach to the properties since such combinations did not involve a change in substance. For example, in the 1943 Montana Power Company case, the FPC ruled that this combination of related companies “…was not a sale by which one party disposed of an interest and another acquired that interest. Just as clearly actual legitimate cost cannot be increased by a transaction which does not result in parting with property.”

Shortly thereafter, according to Wyatt [1963, p. 22], the term *pooling of interests* was used to describe combinations of previously unrelated interests that were fused into one company to be owned jointly—i.e., stock-for-stock combinations. In the 1943 Niagara Falls Power case involving such a combination, the U.S. Supreme Court affirmed the FPC order that the utility should reduce the valuation of its properties to actual legitimate costs (except for certain land); the court found that the utility was not entitled to have its properties measured at fair value for rate making purposes.25

Although the term *pooling of interests* was used initially to

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25 Niagara Falls Power Co. v. FPC, 320 U.S. 792; 64 S. Ct. 206; 88 L. Ed. 477; 1943 U.S. LEXIS 113 @ http://www.lexisnexis.com.remote.baruch.cuny.edu/hottopics/inacademic/?verb=sf&sfi=AC00NBGenSrch. However, it is the 1944 Natural Gas Hope case that is most often cited as the precedent where the U.S. Supreme Court explicitly empowered the FPC and other regulatory authorities to use aboriginal cost to measure the rate base. See supra, p. 8.
describe a stock-for-stock combination transaction, not the accounting treatment of that transaction, Wyatt [1963, p. 23] notes that the accounting treatment "... flowed from the manner in which the Federal Power Commission viewed the transaction...." The FPC favored aboriginal cost to measure the rate base--i.e., carrying forward the book values of utility assets of the constituent companies of stock-for-stock business combinations. Clearly, carrying forward book values of productive assets under pooling of interests accounting is consistent with the concept of aboriginal cost that was being used for rate making purposes. The practice of using the same term pooling of interests to describe the financial reporting for such stock-for-stock combinations developed later.

American Institute of [Certified Public] Accountants Input: In 1945, the AI[CP]A's Committee on Public Utility Accounting [CPUA, 1945, p. 152] reported to the AI[CP]A Council that the FPC has been suggesting the following three propositions in rate cases:

(1) No new cost can be created by a reorganization that does not result in a material change of individual stock ownership.

(2) No new cost can result from a transaction that (a) is at less than arm's length or (b) may be regarded as affecting a pooling of interest.

(3) Where a change in stock ownership takes place without any change in corporate entity, a new cost can be determined for all the property of the corporation on the basis of the aggregate of the sums paid by the new stockholders for their holdings; and, further, that the cost of individual pieces of property may be determined by allocation of the cost arrived at for the aggregate of all the property.

The CPUA noted that the Commission's propositions apparently conflict with the then current accounting standards of Accounting Research Bulletin No. 24, "Accounting for Intangible Assets" [ARB 24, 1944]. Under ARB 24 [1944, para. 1], stock-for-stock combinations were reported at cost consistent with purchase accounting, with cost "...determined either by the fair value of the consideration given or the fair value of the consideration received, whichever was more clearly evident." Additionally, under ARB 24 [1944, para. 5], the excess of cost over book value was allocated to the tangible assets and preferably also to intangible net identifiable assets of the acquiree whenever prac-
ticable to do so, with any residual excess recognized as goodwill.²⁶ Such an allocation of fair value results in reporting the tangible and intangible assets of the acquiree at acquisition date fair value for 100% acquisitions; and partly at fair value and partly at book value for less-than-100% acquisitions, consistent with the then prevailing parent company theory of consolidated financial statements.²⁷ However, the CPUA [1945, p. 151] noted that it had not carefully studied the FPC's propositions and would not express an opinion on them.

The AICPA's Committee on Accounting Procedure (CAP)—the official U.S. accounting standard setter from 1939 to 1959—took up the report of the CPUA. It initially concluded [CAP, 1946, pp. 441-442, italics added] that a pooling of interests, which it defined as a combination of two or more interests of comparable size, "... may represent another situation in which a new basis of accountability is properly recognized and in which assets are most significantly reflected in the accounting records at monetary values most nearly representative of their fair value at that time."²⁸ Presumably, this initial conclusion was favored by utility companies that were pushing for higher fair value valuations all along.

However, Wyatt [1963, p. 24] notes that this initial conclusion of the CAP—i.e., that fair values incident to a new basis of

²⁶ Under ARB 24 [1944, para. 3], limited life intangible assets were amortized against earnings, as was limited life goodwill; indefinite life intangible assets and goodwill was not amortized but, if impaired, were written down against earned surplus (retained earnings), not capital surplus (additional paid-in capital). ARB 24 [1944, para. 6] discouraged but did not prohibit the prior practice of immediate write off of goodwill against either capital surplus or earned surplus.

²⁷ Under the parent company theory, subsidiary identifiable net assets are reported at acquisition at book value adjusted for the parent company's share of the excess of fair value over book value. The parent company theory was prevailing U.S. GAAP and IFRS until superseded by the economic unit theory by FASB Statement No. 160, "Noncontrolling Interests in Consolidated Financial Statements" [SFAS 160, 2007], in ASC Section 810, and by International Financial Accounting Standard No. 22, "Noncontrolling Interests in Consolidated Financial Statements" [IFRS 22, 2007]. Under the economic unit theory, subsidiary identifiable net assets are reported at acquisition at fair value.

²⁸ Interestingly, the CAP [1945, p. 441] initially seemed to call for fresh start accounting for stock for stock combinations of companies of comparable size, whereby all the assets and liabilities of both companies are reported at fair value. In an AICPA-sponsored research study that was intended to underlie a new pronouncement on accounting for business combinations by the APB, Wyatt [1963, p. 82] also called for fresh start accounting for combinations of companies of comparable size, which Wyatt called fair value pooling. However, the APB never endorsed fresh start accounting, and the FASB (and the IASB) explicitly reject fresh start accounting.
accountability may be recognized incident to a stock-for-stock pooling of interests combination of companies of comparable size—was never officially adopted in its (or its successor APB's) pronouncements on generally accepted accounting principles. Quite the contrary resulted. Starting with Accounting Research Bulletin No. 40, "Business Combinations" [ARB 40, 1950, para. 5], the CAP called for pooling of interests combinations to be accounted for by carrying forward historical cost book values of net assets of the constituents, not by reporting any net assets at fair value. The CAP continued to prescribe this carrying forward of book values for pooling of interests combinations in Accounting Research Bulletin No. 43, "Restatement and Revision of Accounting Research Bulletins" [ARB-43, 1953, ch. 7, sect. c, para. 5], and in Accounting Research Bulletin No. 48, "Business Combinations" [ARB 48, 1957, para. 9]. Essentially the same accounting for pooling of interests combinations was also prescribed by the APB in Opinion No. 16, "Business Combinations" [APB 16, 1970, paras. 50-51]; additionally, APB 16 [1970, para. 12 et passim] describes this carryforward of basis accounting for the first time in the authoritative U.S. GAAP literature as the pooling of interests method.29

Securities and Exchange Commission Input: At about the same time, the U.S. Securities and Exchange Commission (SEC) became a strong supporter of pooling accounting [see, e.g., Seligman, 1982, pp. 424-428]. Indeed, on occasion, the SEC sometimes mandated pooling accounting for stock-for-stock combinations that otherwise might have been subject to purchase accounting under then existing GAAP [see Barr, 1958, pp. 12-13]. The SEC’s strong support for pooling accounting emanated from its aversion to most upward revaluations of plant assets and higher depreciation charges based on such upward revaluations, especially for rate making purposes.

Zeff [2007, p. 49] elaborates that “[f]rom its founding in 1934 until the early 1970s, the SEC and especially its Chief Accountant disapproved of most upward revaluations in property,

29 The various tests to qualify for pooling accounting changed as ARB 43 superseded ARB 40, as ARB 48 superseded ARB 43, and as APB 16 superseded ARB 48. In general, each pronouncement refined the tests but was followed by a relaxation of the new tests in practice. See Sapienza, 1962, pp. 268-78; Seligman, 1982, pp. 424-428; and Rayburn and Powers, 1991, pp. 160-188. Additionally, more and more combinations were structured as exchanges of stock for stock to qualify for pooling accounting notwithstanding premiums paid (in shares) to so qualify. See Ayers et al., 2002, 6-7; and Lys and Vincent, 1995. Space limitations preclude further consideration of these issues.
plant and equipment as well as depreciation charges based on such revaluations.” Zeff [2007, p. 50] credits Robert E. Healy, one of the five founding SEC commissioners, as the person who effectively cemented the SEC’s aversion to upward revaluations of plant assets:

Healy was livid at the asset value write-ups that public utilities had been booking.... He complained of ‘write-ups used to create income or to relieve the income accounts of important charges,’ which would be debited to the revaluation reserve account that had been credited with the write-ups.... He was driven to the conclusion that all upward departures from historical cost were veritably heinous.

Healy also emphasized the importance of the stewardship function of accounting. His views on the objectives of accounting are aptly captured in his own words [Healy, 1938, p. 6]:

[T]he purpose of accounting is to account—not to present opinions of value.... The value of a corporation’s property may be much or little—or uncertain. Its cost is usually certain. The capital entrusted to the management can usually be ascertained. What has been done with that capital can be ascertained through accounting. The steward must account for the talents entrusted to him. Accounting to me means the making of a historical record of financial events. Valuation is a very different matter.

In other words, Healy opposed utility plant asset revaluations [and was a strong advocated historical cost] at a time when the SEC viewed the objectives of general purpose financial statements to include stewardship and decision usefulness for several user groups, including rate making by utility regulators—not just investment decisions by stockholders and creditors.

As Zeff [2007, p. 50] notes, given Healy’s influence over the first four SEC’s chief accountants, his opposition to plant asset revaluations and his advocacy of stewardship and historical cost valuations led inevitably to SEC support for pooling accounting. This position is consistent with the concept of aboriginal cost and the stewardship objective of financial reporting.

Accordingly, pooling accounting evolved as the FPC (and other regulatory authorities) started to use aboriginal cost and prudent investment theory in determining utility rate bases once they were permitted to do so as a result of U.S. Supreme Court decisions in the early 1940s. In the usual situation of rising price
levels, adherence to aboriginal cost under pooling accounting resulted in reporting acquiree productive assets and measuring utility rate bases at lower aboriginal cost book values rather than at higher fair values. *Ceteris paribus*, lower rate bases resulted in lower utility rates. In turn, lower rates encouraged more widespread use of electricity, thereby reducing the drudgery of housework and enhancing living standards and economic growth consistent with social and economic objectives of public policy makers.

Of course, pooling accounting also became increasingly popular by corporate management of unregulated companies because it did not involve write ups of carrying values of inventories and limited life tangible and intangible assets that would result in reporting higher expenses and lower earnings subsequent to the combination date. Although pooling accounting provided useful information for rate making decisions by utility regulators and facilitated certain economic and social policies, it was criticized for providing less useful if not misleading information for investment decisions by stockholders and creditors because it understated post-combination operating expenses and overstated post-combination earnings.

Subsequently, most of the accounting literature on pooling accounting addressed issues applicable to unregulated companies, not regulated ones; and much of the criticism of pooling accounting dealt with its perceived defect of reporting productive assets at historical cost book values rather than at fair values for decision making by stockholders and creditors. Little attention was given to other objectives of financial reporting, including the benefits of reporting productive assets at historical cost book values for rate making and stewardship purposes and to facilitate social and economic policies. The next section of this paper discusses the changing perceptions of the objectives of financial reporting.

**CHANGING PERCEPTIONS OF OBJECTIVES OF FINANCIAL REPORTING**

Presently, *decision usefulness* to stockholders and creditors is viewed explicitly by accounting standard setters as the basic objective of financial reporting; and *neutrality* is viewed as a desirable quality and an essential component of *faithful representation* of accounting information. However, such was not the case when pooling accounting was developed in the 1940s. Perceptions about the objectives of financial reporting have changed
over the years, as have what constitute desirable qualities of useful accounting information.


In SFAC-1 [1978, paras. 25-26], the FASB reasons that other potential users of general purpose external financial reporting information—such as suppliers, employees, customers, tax and regulators, legislators, labor unions, trade associations, business researchers, teachers and students—either have similar information needs as investors and creditors and/or have the power to obtain whatever information they need. The FASB [1978, para. 26] notes, for example, that although tax and regulatory authorities often use information in general purpose financial statements, both have statutory authority to require the specific information they need to fulfill their functions and do not need to rely on general purpose external financial reporting information. Similarly, when a financial institution negotiates with an enterprise for a large loan or private placement of securities, it can often obtain the desired information by making that information a condition for completing the transaction. On the other hand, individual stockholders and creditors cannot require specific information if not provided in general purpose financial statements. SFAC-8 [2010a, para. OB5] reasons simi-

³⁰ The emphases and conclusions of SFAC-1 differ somewhat from those of SFAC-8, and the FASB relied on SFAC-1, not SFAC-8, when it developed SFAS 141 (2001). Additionally, SFAC-8 is more succinct than SFAC-1 in addressing the information needs of regulators, public policy makers, and other users. For example, SFAC-8 discusses the information needs of regulators for maintaining financial stability, not for utility rate making. A word search of SFAC-8 failed to find a single reference to utility, utilities, regulated, or rate making.
larly that “[m]any existing and potential investors, lenders, and other creditors cannot require reporting entities to provide information directly to them and must rely on general purpose financial reports ....” As a result, SFAC-8 [2010a, para. OB5] follows SFAC-1 and concludes that potential investors, lenders, and other creditors “... are the primary users to whom general purpose financial reports are directed.”

Importantly, SFAC-1 (as reconfirmed by SFAC-8) was the culmination of the FASB’s extensive deliberations in the 1970s, when individual and institutional stockholders and creditors (and their advisors) were becoming increasingly prominent if not the dominant user group among FASB constituents. Pooling accounting evolved long before the FASB developed its conceptual framework.

It is true that regulators may have the statutory authority to require specific information they need to fulfill their functions and do not need to rely on external financial reporting information. However, regulators often choose not to exercise such authority, and to rely on information in general purpose financial statements instead. For example, Quint [1994, p. 27] notes that utility regulators often insist on making decisions based on information in general purpose financial statements. Similarly, in

31 The FASB [SFAC-8, 2010a, para. BC1.23] also reasons that expanding the objective of financial reporting to provide information to regulators would deprive investors and creditors of information that they need; the only way to avoid conflicts would be to eliminate or deemphasize the objective of providing information to investors and creditors. It [SFAC-8, 2010a, para. BC1.23] concludes that “... eliminating that objective would be inconsistent with its basic mission, which is to serve the information needs of participants in capital markets.”

32 The predecessor to the FASB, the APB, which functioned between 1959 and 1973, briefly specified a similar decision usefulness objective of financial accounting, again primarily for stockholders and creditors, but it also noted a stewardship objective of financial accounting. In Concepts Statement No. 4, “Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises,” the APB [1970, para. 73, italics added] notes that the basic purpose of financial accounting and financial statements “... is to provide quantitative information about a business enterprise that is useful to statement users, particularly owners and creditors, in making economic decisions. This purpose includes providing information that can be used in evaluating management’s effectiveness in fulfilling its stewardship and other managerial responsibilities.” See also Most, 1977, pp. 107-120. The predecessor to the APB, the CAP, which functioned between 1939 and 1959 when pooling accounting was developed, did not explicitly address the basic objectives of financial accounting in a comparable manner.

33 Quint [1994, p. 27] notes that in the Entergy Services case, the FERC permitted purchase accounting for regulatory purposes notwithstanding its preference for pooling accounting in order to avoid “... the undesirable effects that may result from potentially having different financial statements presented for regula-
assessing the adequacy of bank regulatory capital, U.S. federal regulatory authorities insist on using the same mark-to-market fair value accounting rules for loan portfolios that are used in general purpose financial statements under current U.S. GAAP. Accordingly, it is somewhat simplistic (if not disingenuous) for the FASB and IASB to dismiss the needs of regulators for financial statement information.

Changing Perceptions of Objectives: Hendriksen [1970, p. 2] notes that the objectives of financial reporting have changed over time as one or more user groups have dominant influence over financial accounting standard setters. He [1970, pp. 102-103] notes that for many years [including the years in which pooling accounting was developed], another approach to standard setting was to assume that the basic objective of general purpose financial reporting is to provide information for a set of unknown users with multiple needs. At least before the FASB issued SCAC-1 in 1978 if not now, many accountants and financial report users concurred that the basic objective of financial accounting is broader in scope than as enumerated in SFAC-1 and reconfirmed in SFAC-8—i.e., to serve multiple users, not just stockholders and creditors.
For example, in a 1961 AICPA-sponsored research study that was intended originally to underlie the development of accounting standards by the then newly established APB, University of California—Berkeley professor and AICPA Director of Accounting Research Maurice Moonitz [1961, pp. 23-27, italics added] argued that the basic objective of financial reporting is decision usefulness for many different user groups, not just for stockholders and creditors. Moonitz [1961, pp. 4-5, italics added] notes that

... anyone who stresses “usefulness” as a criterion, in accounting or elsewhere, must answer the two pointed questions—useful to whom? and for what purpose? And herein lies the danger. We could easily be trapped into defining accounting and formulating its postulates, principles, and rules in terms of some special interest, such as the business community, or the regulatory agencies, or investors, or tax collectors. But accounting has been used in the affairs of private business, regulated and unregulated, of profit motivated enterprises as well as nonprofit ones, of illegal as well as legal enterprises, of socially undesirable as well as desirable entities, of organizations in socialist, fascist, or communist states as well as those in free enterprise societies. We cannot proceed on the premise that accounting is the monopoly of any one group, whether that group is concerned mainly with the development of the accounting process or with its end-product in the form of financial statements and reports.

Thus, Moonitz [1961] defined the objectives of general purpose financial reporting more broadly than SFAC-1 [1978] and SFAC-8 [2010a] to provide information needed not only for investment and credit decisions by stockholders and creditors, but for other purposes and other users, including rate making by public utility regulators and fostering social and economic policies by public policy makers.35

35 To some extent, of course, rate making by regulatory authorities and fostering social and economic policies are interrelated. For example, in setting rates, Leventhal [1965, p. 1017] notes that some utility regulators consider the quality of the utility service, which “…should include an awareness of the needs of the public as they change and grow, conscientious effort to put technological research and developments to the service of the community, and responsiveness to the community’s plans and programs.” Additionally, Breyer and MacAvoy [1973, pp. 949-950] note that regulating utility rates might be motivated not only to curb monopoly power but to redistribute income from producers to consumers. Interestingly, Breyer has been an associate justice on the U.S. Supreme Court since 1994.
When Moonitz was developing his ideas in the 1940s, 1950s and early 1960s, many practicing and academic accountants concurred with this broader view of the objective of general purpose financial reporting including, no doubt, some of the members of the CAP under which pooling accounting evolved into GAAP, as well as some members of the APB, and perhaps even some of the early members of the FASB; many may still do. Importantly, pooling accounting developed in part to satisfy the information needs of utility regulators for rate making purposes and public policy makers for fostering social and economic policies in an era when many accountants, report users, and standard setters viewed the basic objective of general purpose financial reporting to include providing information for a set of unknown users with multiple needs.

Stewardship as Another Objective: Additionally, prior to SFAC-1 [1978] if not now, many Anglo-American accountants (and perhaps even more non-Anglo-American accountants) viewed stewardship (or accountability) as well as decision usefulness as important objectives of general purpose financial reporting. For example, Oldroyd and Miller [2011, p. 11] note that besides providing information that is useful for investment decisions by stockholders and creditors, a basic objective of accounting is to facilitate trade and investment by attesting to property rights and obligations, so that property owners have evidence to enforce their rights in courts of law:

Stewardship fits into the equation through the ability of accounts to communicate events at a distance... In the modern era, the separation of ownership from management is not the main reason for the creation of agency relationships and accounts; rather, it is the need of shareholders to evaluate operations at a distance... Decision usefulness, for its part, has existed as an adjunct to stewardship accounting for most of its history.

SFAC-1 [1978, para. 50] notes that “[f]inancial reporting should provide information about how management of an enter-

On the other hand, some commentators criticized regulatory authorities for using accounting requirements to foster social and economic goals. For example, Brundage [1950, p. 388, italics added] notes that “... one of the most serious complaints of the accounting profession--that the regulatory commissions, on occasion, have used accounting requirements as a means for accomplishing social objectives, although in so doing they may have departed from what was considered the best accounting practice at the time.”

36 See, e.g., Paton and Littleton, 1940, pp. 2-3; and May, 1943, pp. 254-65.
prise has discharged its stewardship responsibility to owners for the use of enterprise resources entrusted to it.” It [1978, para. 50] notes that enterprise management

... is periodically accountable to the owners not only for the custody and safekeeping of enterprise resources but also for their efficient and profitable use and for protecting them to the extent possible from unfavorable economic impacts of factors in the economy such as inflation or deflation and technological and social changes.

SFAS-1 goes on to note that a central question for report users is how an enterprise and its owners are faring, and that the stewardship function of financial reporting helps answer this question. In SFAC 1 [1978], however, the FASB downplays stewardship relative to decision usefulness as a basic objective of general purpose financial statements.37

SFAC-8 [2010, para. B1.27] notes more succinctly that because decision usefulness is the basic objective of financial reporting, there is no need for the conceptual framework to have separate sections on decision usefulness for credit and investment decisions versus decision usefulness for assessing management stewardship: “Both are important for making decisions about providing resources to an entity, and information about stewardship also is important for resource providers who have the ability to vote on, or otherwise influence, management’s actions.” In effect, SFAC-8 claims that stewardship is an aspect of decision usefulness for investment decision making, despite the widespread view heretofore that stewardship differs from decision usefulness. Like SFAC 1 [1978] and prior APB pronouncements, therefore, SFAC-8 [2010] downplays stewardship relative to decision usefulness as a basic objective of general purpose financial statements.38 Moreover, to the extent that they considered stewardship, the FASB (and the APB) consider stewardship principally to stockholders and creditors, not to other interested parties, such as regulators and public policy makers.

37 The APB, the predecessor to the FASB, also downplays stewardship relative to decision usefulness as a basic objective of general purpose financial statements, as noted above.

38 SFAC-8 [2010a, para. BC1.28] notes that the FASB decided not to use the term stewardship in SFAC-8 “... because there would be difficulties in translating it [stewardship] into other languages. Instead, the Board described what stewardship encapsulates. Accordingly, the objective of financial reporting acknowledges that users make resource allocation decisions as well as decisions as to whether management has made efficient and effective use of the resources provided.”
Interestingly, the European Financial Reporting Advisory Group [EFRAG, 2007], the [British] Accounting Standards Board, and a number of other European accounting standard-setters argue that stewardship (or accountability) should be viewed as a separate basic objective of financial reporting. The EFRAG [2007, para. 3.1] elaborates that “… the stewardship objective is about assessing management’s competence and integrity including the success of their strategy in managing the business,” and that an assessment of stewardship “… was originally the primary objective of financial reporting under agency theory and is just as relevant today.” The EFRAG [2007, para. 7.1] notes that most [non-Anglo-American] respondents to their survey view stewardship [to stockholders] as a separate basic objective of financial reporting.39

Importantly, pooling accounting developed in an era when many accountants and report users viewed stewardship as a separate basic objective of financial reporting, if not the basic objective; and where some commentators viewed stewardship not just to stockholders and creditors but also to other interested parties, such as regulatory authorities and public policy makers. For example, Ladd [1963, p. ix] notes that “… accounting has the vital social role of passing on to the public, information about the extent and uses of corporate powers.” More recently, Rasche and Esser [2006, p. 252] define accountability more broadly as

... the readiness or preparedness of an organization to give an explanation and a justification to relevant stakeholders for its judgments, intentions, acts, and omissions when appropriately called upon to do so.... Accountability thus entails a mechanism of effective control by customers, citizens, and beneficiaries allowing an evaluation of the private or public good.

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39EFRAG [2007, para. 5.2] notes that some respondents view stewardship more broadly than accountability to also include the concept of responsibility, that stewardship connotes that management should be striving to act in the best interests of shareholders under current and future circumstances, whereas accountability connotes a backward looking and narrower concept than stewardship. However, most respondents to the Exposure Draft to SFAC-8 treat stewardship and accountability as interchangeable. EFRAG [2007, para. 5.2-5.5] favors replacing stewardship with accountability because accountability is the true reason for producing financial reports — i.e., to provide an account to the owners. Additionally, the term stewardship is old fashioned and for some only addresses information on corporate governance issues; and accountability is more easily translated to other languages than stewardship.
Others [e.g., Briloff, 2002; and Briloff and Briloff, 2010] concur that an important objective of financial reporting is to hold the management of large publicly owned corporations accountable to society, especially when there is a separation of ownership (i.e., stockholders) and control (i.e., management).

Pooling accounting developed in part to enable utility management to demonstrate its stewardship over the aboriginal cost of utility assets, not only to stockholders and creditors, but also to utility regulators, the courts, and public policy makers that were increasingly favoring aboriginal cost and prudent investment theory for rate making purposes.

**Economic Policy as Another Objective:** Presently, both the FASB and the IASB adhere to the quality of neutrality as an essential component of faithful representation of accounting information. For example, in *Statement of Financial Accounting Concepts No. 8, “Conceptual Framework for Financial Reporting: Chapter 3, Qualitative Characteristics of Useful Financial Information”* [SFAC-8 [2010b, para. BC3.29], the FASB notes that in developing financial accounting standards, it

... does not attempt to encourage or predict specific actions of users. If financial information is biased in a way that encourages users to take or avoid predetermined actions, that information is not neutral.

The FASB explains more fully in Concepts Statement No. 2, “Qualitative Characteristics of Accounting Information” [SFAC-2, 1980, paras. 98-100], that in developing accounting standards, its primary concern is the relevance and reliability of the resulting information, and that the resulting information should be free from bias towards a predetermined result.

When it develops new accounting standards, the FASB dismisses consideration of the effects of accounting standards on particular parties or particular behavior, including national economic and social policy, notwithstanding its understanding that accounting standards affect behavior. For example, in SFAC-8 [2010a, para. BC1.23], the FASB explicitly rejects suggestions that maintaining financial stability in national capital markets is a proper objective of financial reporting; it concludes that

[40] However, Briloff [1967] and Briloff and Briloff, 2010] do not believe that pooling accounting facilitates stewardship, at least to stockholders and creditors. They are strong advocates of the purchase (or acquisition) method and strong critics of the pooling method.
such an objective would be inconsistent with its basic mission to serve the information needs of capital market participants.

However, as early as 1940, various commentators note that financial accounting information is the basis for significant decisions and policies in the economic, social, and political realm as well as in business affairs. For example, Greer [1940, p. v, italics added] notes that accounting is

... an important medium for the public expression of the important facts about our vast and complex commercial and industrial society. Where the accountant once was concerned merely with assisting the owners of a business to evaluate its operations in money terms, he now must recognize a broad social responsibility. His findings, and the manner in which he sets them forth, have become the basis for significant decisions and policies, not only in business affairs, but in economic, social, and political matters......

Similarly, Paton and Littleton [1940, pp. 2-3, italics added] note that

[g]reat corporations are quasi-public institutions for social cooperation .... [T]hey have a duty to government and to a price conscious public.... [T]he public aspects of corporations call for recognition by corporate management of public responsibilities; acceptance of such responsibilities calls for the development and use of corporate accounting standards.

One recent manifestation of the economic, social, and political role of accounting is the Chinese Accounting Standards Board (CASB), which opted to develop its own accounting standard on business combinations, [Chinese] Accounting Standards for Enterprises No. 20, “Business Combinations” [CAS-20, 2006], rather than adopt IFRS-3 (2004) verbatim. According to Baker et al.[2010, pp. 112, 114], the capital markets orientation of the IASB [and the FASB] largely ignores the existence of mergers [of related companies]; under IFRS [and U.S. GAAP], business combinations are viewed mainly as acquisitions resulting from arm’s length bargaining between unrelated parties.41

In contrast, the political and economic focus of the Chinese standards setters emphasizes the existence of both mergers of related companies and acquisitions of unrelated companies; and

41 Almost as an aside, however, both the IASB [IFRS-3, paras. B1-B4] and the FASB [SFAS 141(R), paras. D8-D13] note that combinations of companies under common control remain subject to pooling accounting.
the need to have different methods of accounting for these different types of combination transactions. Baker et al. [2010, p. 112] contend that

Chinese standard setters sought to comply with IFRS insofar as those standards do not adversely affect economic development. [but] ... apparently concluded that the IASB standard ... could have an adverse impact upon the industrial reorganization process taking place in China.

Consequently, Baker et al. [2010, p. 112] conclude that Chinese standard setters view the fundamental objectives of financial reporting somewhat differently than the IASB [and the FASB] because they consider the effect of accounting standards on economic development.

Pooling accounting developed in the United States in part to foster certain social and economic policies long before neutrality was ensconced by accounting standard setters as a desirable qualitative characteristic of financial accounting information. Some advocates of pooling accounting argue that by adhering to aboriginal cost valuations of plant assets following stock-for-stock combinations of utilities, pooling accounting results in lower utility rate bases. In turn, the lower rate bases result in lower utility rates, which encourages greater use of electricity, enhances living standards, and fosters economic growth.

SUMMARY AND CONCLUSIONS

Through the years, pooling accounting was criticized as contrary to the decision usefulness objective of financial reporting and potentially misleading to stockholders and creditors in making investment decisions. Critics of pooling accounting argued that it does not provide decision useful information to stockholders and creditors because it grossly understates (1) the cost of stock-for-stock combinations; (2) the carrying values of the net assets of the acquiree; and (3) the expense incident to using acquiree net assets subsequent to the combination date.

From a historical perspective, however, there were some very good reasons for requiring or at least permitting pooling accounting for stock-for-stock business combinations when the method was developed in the 1940s. At that time, the basic objectives of financial accounting were viewed more broadly to include stewardship and decision usefulness for multiple users, including public utility regulators and public policy makers, not just stockholders and creditors. Pooling accounting developed
in part to satisfy the information needs of public utility regulators and public policy makers; it was a response to regulators’ increasing use of aboriginal cost to measure the utility rate base for utility combinations, once they were permitted to do so as a result of U.S. Supreme Court decisions in the early 1940s. Lower utility rates resulted when utility rate bases were measured at aboriginal costs under pooling accounting rather than at fair values under purchase accounting. In turn, lower utility rates facilitated the attainment of certain social and economic goals; it encouraged more widespread use of electricity, lessened the drudgery of housework, and enhanced living standards and economic growth.

**ADDENDUM**

**Recent Combinations of Health Care Organizations**

Mathews (2012a) reports rising medical prices associated with increasing numbers of hospital systems combining with private physician practices. Although hospital representatives contend that the combinations make health care more efficient, rising prices result because insurance companies pay for medical services at hospital systems rates that are a lot higher than the rates for the same services performed at private medical practice facilities. For some procedures, such as imaging scans, insurance companies reimburse as hospital outpatient procedures rather than as practice office procedures. According to Mathews (2012a), the same procedure, sometimes performed at the same location, may double in price once a hospital system acquires the medical practice. Mathews (2012b) also reports that several states attorney generals are investigating whether mergers of hospitals and doctor groups are pushing up prices.

Of course, this increase in third-party reimbursement rates is due to many other factors. According to Mathews (2012b), the primary factor may be the increased bargaining power of medical service providers due to the reduced competition by combining previously competing hospitals and private physician practices. Additionally—and unmentioned by Mathews—the increase in reimbursement rates may also be an artifact of the financial accounting for these combinations. Third-party reimbursement rates suppose to reimburse medical providers for the cost of providing services, including depreciation of medical facilities and equipment; and depreciation increases due to the increase in the depreciation base by using +purchase (or acquisition) method to record these combinations when fair value exceeds
aboriginal cost of these facilities and equipment. To that extent, third-party providers may push for aboriginal cost valuations of acquired facilities and equipment under the pooling method, at least for third-party reimbursement rate making purposes. To date, however, this accounting artifact issue has not been reported to be under active consideration by either third-party providers or states attorneys-general.

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EXAMINING FRANK ADAIR JR. AS AN AFRICAN AMERICAN CPA PIONEER: A HISTORICAL NOTE

Abstract: In 1932, Frank Adair Jr. achieved his Certified Public Accountant (CPA) status as the sixth African American CPA in the US and only the second in the Deep South. Although his active professional career was brief (5 years), it typifies not only the difficulty experienced by an African American achieving this designation in the Jim Crow South, but also the factors that were necessary for such an achievement to occur in that time period. First, Adair Jr. practiced in a dynamic and vibrant segregated business community. Second, he was educated at a black college. An African American who wanted to stay in the Deep South would have had no other option. Third, he benefitted from a strong professional mentoring relationship that enabled him to forge his career path. Inadvertently, Adair Jr. was omitted from the 1990 NABA report of the first one hundred African American CPAs. This historical note seeks to correct that omission.

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INTRODUCTION

In 1932, Frank Adair Jr. became a Certified Public Accountant (CPA) in Georgia, making him the second African American CPA in Georgia and the Deep South, as well as the sixth African American CPA nationwide to earn such a distinction. This achievement was so significant that it was publicized in the Atlanta Daily World, the only African American daily newspaper at that time, as well as the Baltimore Afro-American, one of the five largest African American newspapers in the United States. Although his career was a mere five years, Frank Adair Jr.’s experience typifies the difficulty an African American experienced while seeking to achieve this professional designation in the Jim Crow South. Of keen interest are the factors that enabled him to excel despite seemingly insurmountable odds.

First, he trained and practiced in Atlanta, one of the most successful segregated African American business communities in the country. Without a client base of sufficient size, he would not have had the opportunity to practice his craft. The first minority CPAs practiced in areas where a critical mass of African American businesses provided a support base. Second, he was educated at a black college. While African Americans were admitted to northern colleges and universities, for the majority of African Americans choosing to remain in the South, the only business education available that would prepare one for the CPA exam was from black colleges. The African Americans who were trained at northern colleges tended to stay in the North. Of the first five African American CPAs, all of them received their accounting education at northern schools but only one, J. B. Blayton, practiced in the Deep South. [Hammond, 2002, 16-17, 21, 23-27, 30-31] Adair would be the first African American CPA educated at a black college and he was the first to receive his accounting education in the Deep South. Third, Mr. Adair had a strong mentor in J. B. Blayton, the first African American CPA in the state of Georgia and the fourth African American nationwide to earn this professional distinction. Professor Blayton would be his teacher at Morehouse College, his employer at a CPA firm, and eventually his partner in the same firm.

Unfortunately, Frank Adair Jr. was inadvertently omitted from the 1990 National Association of Black Accountants (NABA) report listing the first 100 African American CPAs. In 2002, Dr. Theresa Hammond published her seminal work on the history and struggles of the pioneer African American CPAs in the United States: A White Collar Profession: African American
Hollingsworth, Frank Adair

Certified Public Accountants since 1921 using the NABA list as a foundation. Research on Professor Blayton, prominently featured in Dr. Hammond’s book, uncovered newspaper articles from the 1930’s that referenced the accounting firm Blayton, Adair and Company. Understanding that Mr. Blayton could not have had a white partner in a segregated society, further research led to verification of this African American pioneer and the difficulties he faced achieving this professional certification in a time of segregation and discrimination.

HISTORICAL CONTEXT

In the latter half of the 19th Century, it was not uncommon for African Americans and Whites to have business interactions. Entrepreneurs among the African American population depended quite heavily upon the support of white customers, especially as many of them were continuing in trades developed on the plantations, both personal service, such as barbering and cooking, and manual labor trades, such as blacksmithing. [Meier and Lewis, 1959, 128; Du Bois, 1899, 8-11] In Atlanta, one African American dentist built a strong career serving white patients, even before the Civil War [Wortman, 2009, 78-79, 82]. Alonzo Herndon, one of Atlanta’s most successful entrepreneurs, built the base of his large fortune in a barbershop on Peachtree Street that only served a white clientele. [Dittmer, 1977, 8] A successful African American grocer, James Tate, in late 19th century Atlanta was located in a white area of the city. An African American in rock quarrying and brick making, J. McKinley, had Whites and African Americans among his one hundred fifty laborers [Carter, 1894, 20-23]. Not only did you have some intermingling of clients and workers but the physical separation was not as strict. African American businesses could even rent space in white buildings [Dittmer, 1977, 8, 38].

Around the turn of the century however, this began to change due to several factors. Beginning in the 1890’s, Atlanta, Georgia, and the rest of the Deep South began instituting the Jim Crow laws that restricted African American rights politically, economically, and socially. [Dittmer, 1977, 8-22] As early as 1899, African American Sociologist W. E. B. Du Bois recognized the changing tenor of the times and foresaw opportunity when he declared, “it is clear that it is density of Negro population in the main that gives the Negro business-man his best chance.” [Du Bois, 1899, 7] One contributing factor to the changing economic and social tide was the changes in technology and business or-
ganization which led to the creation of larger businesses and put serious pressure on the smaller “mom and pop” entrepreneurs in all aspects of society. African Americans were affected more as they would be shut out of the management positions in large white-owned firms and did not possess the capital to create the larger firms on their own. [Meier and Lewis, 1959, 128] At the same time in the Deep South, Whites were beginning to move into endeavors normally restricted in the past to the African American slave populations and when that occurred, Whites would invariably hire other Whites over African Americans therefore further restricting minority opportunities. This included artisan positions such as brick masons and carpenters but also porters, ditch diggers and other menial positions. [Hope, 1899, 56]

Another contributing factor to the socio-economic changes of the early 20th century was the marked increase in the African American urban population. All over the nation, African Americans were leaving the farms and entering the urban areas. The trend held true in Atlanta as the black population in Atlanta more than doubled between 1890 and 1920. On the upside, this urbanization created a significant African American market. [Meier and Lewis, 1959, 128] On the downside, this migration created tensions with other urban immigrants. Poor Whites also began to move into Atlanta from the mountains of north Georgia and the farms of the Piedmont region. Economic competition for the low skill jobs began to elevate tensions between the two communities. In response the state and local governments began to pass Jim Crow laws that codified segregation in housing and economic opportunities. [Dittmer, 1977, 8-22]

The tensions between the African American and poor white communities reached a breaking point early in the new century. In 1906, in the midst of a heated governor’s election that stoked racial fears, a riot broke out in Atlanta over three days in September where roving bands of Whites attacked African Americans on sight. To this day, there is no agreement over the number of African Americans killed. What is known is that many of the murders were committed in the downtown business district and nearby areas. What the government had started with its Jim Crow laws, the race riot helped to conclude. Now the African American business community would begin to participate in the economic and social segregation as a defense mechanism, retreating to two main enclaves on Auburn Avenue and the area surrounding the Atlanta University Center. [Burns, 2006, 175, 187, 192]
By the 1930s when Frank Adair, Jr. earned his CPA designation and was practicing his career, this segregation was essentially complete. It now impacted all aspects of African American society, from social to business to political. [Pomerantz, 1996, 117] writes

By law, blacks in Atlanta could not serve on juries. Their tax forms were a different color than those used by whites. City statutes prohibited interracial marriages. Mulatto children born out of wedlock were not permitted to inherit the estate of their white father. At the First National Bank, blacks used separate teller windows. Of the four elevators in the Rhodes-Haverty Building, three were marked “White” and the fourth “Colored”..... At the Davison-Paxon department store on Peachtree Street, the drinking fountain on the first floor was designated for whites, the fountain in the basement for blacks. At the Fox Theatre, blacks were made to enter through a stairwell on the side of the building, not the front. Though Booker T. Washington Park was created for blacks, all other city parks were off-limits.....On the streetcars and buses of Atlanta, blacks sat in the back; only when buses became overcrowded did drivers permit them to sit in the emergency fold-up seat in the front.

What this segregation meant to the African American business community and business professionals was a restricted base of operations. While the large African American work forces in agriculture and domestic help would continue to work with the white community, African American businesses and professionals could only rely on African American support. [Alexander, 1951, 463] This segregation did provide for some African American businesspersons a captive audience and limited competition as a mitigating benefit. For the African American CPA, however, the restricted base served as a serious hindrance since only larger business concerns tended to use the services of a CPA.

As it happened, the rise of the CPA and the advent of accounting as a professional field coincided with the increase in segregation across the South at the turn of the century. While accounting and bookkeeping have always been a part of business enterprises, the growth of the large corporations in the second Industrial Revolution created the need for the most elite form of accountants, the Certified Public Accountants, who could be trusted to verify the information given to the absentee owners and shareholders. The first law in the US creating the
CPA designation was passed in 1896 in New York. [Hammond, 2002, 3] Georgia established its Georgia State Board of Accountancy to regulate CPAs in 1908, well after Jim Crow laws and segregation were instituted. Therefore in Georgia and throughout the Deep South, significant administrative and legal obstacles existed to prevent a CPA from creating a thriving practice off an integrated customer base. Understandably, any African American hoping to enter this new and growing field would, out of necessity, seek clients from within his community. Without a significant base of client support within that community, an African American CPA would not be able to achieve a CPA career and practice.

It should be noted that African Americans were involved in accounting and bookkeeping across the South but the emphasis in this paper is on the CPA designation. [Martin, 1933, 113] To achieve the CPA designation, an accountant has to pass a rigorous set of exams. To highlight the difficulty of the exams of the period under consideration, J. B. Blayton took the exams thirteen times between 1925 and 1928 in Georgia before passing all five portions. [GA, 1925-1928, 25-54] (Racism may have been a factor in Blayton's large number of retakes but the impact would be practically impossible to parse out.) In addition to the exams a prospective CPA had to pass, in some states at first and eventually in the majority of states, he had to show between one and three years of experience in the field. Both the exam and experience requirements would prove to be a hindrance to African Americans.

To pass the exam, he would need extensive training in all levels of accounting. However, this educational background was difficult to obtain in the Deep South after the turn of the century. The college education needed to succeed in any business was limited for African Americans. In 1899 at his Atlanta University Conference on "The Negro In Business", Du Bois, when speaking of the need for more African American businesspersons, said "The great drawback is the little knowledge of business methods among the Negroes." [Du Bois, 1899, 13] One of the resolutions adopted by his conference was, "We need as merchants the best trained young men we can find. A college training ought to be one of the best preparations for a broad business life; and thorough English and high school training is indispensable.”

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1 The Georgia State Board of Accountancy minutes show the CPA exam consisted of five portions: Commercial Arithmetic, Theoretical Accounting, Practical Accounting, Auditing, and Commercial Law.
[Du Bois, 1899, 50] College training was particularly needful in accounting, which had such high standards and specialized knowledge. However, this specialized training was even rarer than a general college education for African Americans. Joseph Pierce in his 1944 study on African American business and business education listed 15 black schools across the South that offered some courses in accounting. [Pierce, 1947, 253] The vast majority of those offered only the introductory courses. The sole school that offered a graduate education in accounting was Atlanta University. [Pierce, 1947, 274] The absence of accounting education was so severe that J. B. Blayton would use his own private school in Atlanta, the Blayton Business Laboratories, to help fill the gap.

As difficult as it was to pass the exam, gaining the experience requirement in the states that required it was even tougher. White accountants would not allow African Americans to practice with them with rare exceptions. The reason given was that their clients would not trust African Americans to handle their books, even though there was some evidence to the contrary. [Martin, 1933, 114] Of the first five African American CPAs, four achieved the designation in states that did not, at the time, require experience. The fifth gained experience at a white Jewish firm in New York. [Hammond, 2002, 21] As more and more states began to require experience, the first pioneers began to provide support to those who followed.

However, as noted before, an African American still needed a significant client base to support their own business before they could begin to help others gain experience. In the urban areas with its large African American populations, a captive market could provide enough business to sustain a CPA practice. Notably, after World War 2, half of the African American CPAs at the time were located in Chicago and were associated with the practice of Arthur Wilson and Mary Washington. [Hammond, 2002, 28] By 1947, four African Americans had received CPAs in the Deep South and only two of those were associated with a CPA practice, both in Atlanta. [Hammond, 2002, 85, 108, 147]

The experience requirement for the CPA highlights the need for a mentor, even among majority accountants. The experience requirement is actually a holdover from the British system that consisted of a long apprenticeship. [Hammond, 2002, 4] For minority CPAs though, with such limited access to preparatory professional experience, the role played by a professional mentor was doubly important, yet the number of possible mentors was severely limited. Wilson, Washington and Blayton played a
significant role in mentoring almost all of the African American CPAs in the early part of the 20th Century. In his 1951 article on Negro Business in Atlanta, Robert Alexander noted that of the 15 known African American CPAs, six were students of Blayton, earning him the title of “Dean of Negro Accountants”. [Alexander, 1951, 457; Hammond, 2002, 23-24] Frank Adair was not counted among these six CPAs but he was the first of J. B. Blayton’s protégés. In addition, he reflected the other two factors by his education at a black college and his work in the Atlanta business community.

ADAIR’S EXPERIENCE

Frank Adair, Jr. was born in 1905, the only child of Frank Sr. and Ophelia Adair, and came of age in Vine City, an African American neighborhood immediately adjacent to the Atlanta University Center. The Atlanta University Center, at that time, was composed of three prestigious black institutions: Morehouse College, Atlanta University and Spelman College. Adair’s father worked for a railroad company. Frank Adair would spend his entire life within a few blocks of his birthplace. He attended the nearby Gate City Elementary School and then Booker T. Washington High School. Washington High was the first black high school in Atlanta and had only recently opened when Adair enrolled. After high school, he attended Morehouse College. He was considered an exceptionally brilliant mathematician by his professors. He graduated in 1929 with a degree in Economics. During his course of study, he took courses in accounting also. Such exposure would prove to be fortuitous in later years. [Atlanta Daily World, 10/7/1932, A1]

It was at Morehouse College that he met his future mentor and business associate, Professor Jesse Bee Blayton (known as J. B.). A native of Oklahoma, Blayton moved to Atlanta in 1922 where he began work at the Standard Life Insurance under the direction of Heman Perry, a noted African American entrepreneur. [Blayton, 1954, 3] By the time Frank Adair Jr. studied under him, Mr. Blayton was already fully immersed in his business ventures. Although Standard Life Insurance failed in 1924, Blayton continued to work with other insurance firms as well as the local Citizens Trust Bank, an African American owned firm that began as a subsidiary of Standard Life. In 1925, Blayton, along with 14 partners, began the Atlanta Mutual Building Loan and Savings Association. That same year, he began teaching accounting at Morehouse College and he sat for CPA exam for the first
time. Three years later, he successfully passed the examination in its entirety. [Seder and Burrell, 1971, 127] Soon thereafter, he created his own accounting firm, J. B. Blayton & Co., a CPA firm.

Frank Adair, Jr. and J. B. Blayton began a protégé/mentor relationship while Adair was studying under Professor Blayton at Morehouse. Even though Morehouse offered more accounting classes than most black colleges during this time, Adair still needed to study more advanced accounting classes. So after Adair graduated, he would continue his studies at Blayton Business Laboratory. The Laboratory was private school Mr. Blayton founded essentially to teach business skills to the local community but it also provided a place where Adair could receive more intensive accounting training. In addition, after his graduation from Morehouse, Adair would also become an associate at J. B. Blayton & Co. [Atlanta Daily World, 10/7/1932, A1]

Frank Adair Jr. began taking the CPA exam in mid-1931. He took the exam four times: May 1931, September 1931, December 1931, and May 1932. He passed the exam in May 1932 and was awarded CPA #325 in September of the same year. [GA, 1931-1932, 80-92] Although four years had elapsed since Blayton passed the exam and more than 100 other CPAs had been certified in Georgia alone, Adair was still the second African American to receive this distinction in the entire Deep South. Frank Adair Jr. was also the sixth in the United States to do so. It would be 18 years before another African American would receive a CPA license in the state of Georgia. [Hammond, 2002, 147] Adair's accomplishments were written up in the local African American owned newspaper, the Atlanta Daily World saying "Leading Atlanta citizens as well as faculty members of Morehouse College express themselves as highly elated over the progress of this young Atlantan and predict a great future for him in the business and economic world. His ability as an accountant has received high praise from members of both races." [Atlanta Daily World, 10/7/1932, A1] Adair would also be recognized in the Baltimore Afro-American for his achievement. [Baltimore Afro-American, 10/22/1932, 7]

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2 The Georgia State Board of Accountancy minutes from each quarter detail who paid to take the CPA exam, who passed the previous exam and who still needed to retake which portion. So, one can find, for example, that Blayton and Adair struggled to pass the Practical Accounting portion of the exam. The minutes do not, however, report the actual scores on the exam.

3 J. B. Blayton received CPA Certificate #192 and Frank Adair Jr. received certificate #325.
Family lore has its own story about Adair and his CPA exam. In their chronology, he passed the exam on his first attempt. According to the family narrative, Georgia officials did not believe that an African American was capable of such an achievement. Therefore, he was forced to retake the exam. Astonishingly, he was required to retake the exam in the office of the then current Governor, Richard B. Russell. With pride, his sons report that he scored higher the second time than he did the first time he sat for the exam. [Adair and Adair, 2010] No corroborating evidence of this has been found and the historical record shows Adair took the exam four times in total. Still, it is not inconceivable that Georgia officials would be reluctant to accept his accomplishment given the tenor of the era. The family narrative simply illustrates their perception of the obstacles Adair faced and their pride in their father’s accomplishments.

Regardless of the means by which he took the exam, Adair was now an official CPA. After the achievement, Adair was made a junior partner in J. B. Blaytons’s accounting firm. The new firm was renamed Blayton, Adair and Company. Many early African American CPAs worked at other jobs as well as their accounting work and Adair was no exception. Even as a partner with Blayton in the accounting firm, he also became a bookkeeper at Citizens Trust Bank, the local African American owned bank that was purchased in 1932 by Blayton and his partners L. D. Milton and Clarence Yates. After two years, he became a note-teller at the bank. [Atlanta Daily World, 10/7/1937, 1, 6]

In the mid-1930s, Frank Adair Jr. was a vital member of the thriving African American community of Atlanta and he showed up regularly in the local African American newspaper. In 1932, he married his wife, Ruth. In 1935, he had his first son, Frank III. [Adair and Adair, 2010] He had a job at Citizens Trust Bank and was a partner in Blayton’s CPA firm. He held positions of Assistant Secretary and Treasurer of the Atlanta Mutual Building Loans and Savings Association. [Atlanta Daily World, 10/7/1932, A1; 1/31/1934, 1; 4/18/1937, 2] In the Atlanta Daily World, he made regular appearances in a gossip style column written by I. P. Reynolds that often made lighthearted fun of his growing weight. Mr. Reynolds commented, “They say all fat men are jolly, so see Frank Adair, Jr. and you will find the saying to be true”. [Atlanta Daily World, 3/15/1936, 4; 4/24/1936, 6] He participated as an actor in the Atlanta University Players, a summer theatre group in at least two productions during 1934. [Atlanta Daily World, 6/20/1934, 3] In 1936, Adair was a Fulton County delegate to the Fifth District Convention of the Republican
Party, dominated at that time by African Americans. [Atlanta Daily World, 4/26/1936, 1, 8] Just these small mentions in the local newspaper paint the picture of a young man successfully involved professionally, socially and politically.

However, the success was not fated to last. In 1937, everything seemingly began to fall apart. In February, Adair was hospitalized for appendicitis. [Atlanta Daily World, 2/3/1937, 3; 10/6/1937, 6] After his recovery, family and friends began to notice a change in him. He began to miss nights at home and offered no explanation to his wife. Both his work performance and personal appearance became unprofessional. During this time of distress, Adair became a regular visitor to his daughter's grave in Lincoln Cemetery. (Adair and his wife had lost a young daughter, also named Ruth, in April 1933. She had only lived a couple of days.) [Adair, 2012] In September 1937, Adair cleared checks with non-sufficient funds that he had written to buy the Shanghai Inn on Auburn Avenue. Blayton and L. D. Milton, the CEO, discovered this and confronted Adair. In what Blayton would later call a 'fatherly' warning, Adair was told that he was going in one direction and the bank was headed in another. If his behavior continued, he would be separated from the bank. [Atlanta Daily World, 10/6/1937, 1, 6; 10/7/1937, 1, 6]

Reportedly, the following Monday afternoon, October 4, 1937 he went by the daycare to pick up his son to give him a ride around town. His wife would later recall joking with him that she was jealous but he promised her a ride at another time. After returning his son, he left and did not return home again. According to a newspaper report, on Tuesday morning, the groundskeeper at Lincoln Cemetery saw him sitting near his daughter's grave in his car. Later, it was reported, the groundskeeper heard a muffled gunshot but thought it was a hunter's rifle. It was not. Frank Adair Jr. had committed suicide. He was 32. [Atlanta Daily World, 10/7/1937, 1, 6]

According to newspaper reports, his death was discovered approximately an hour later when the cemetery workers found him. A coroner's inquest was held the next day. Police testified they had found the gun in the car with him. Police investigators also found the cancelled checks and bill of sale for the Shanghai Inn in his pockets. Mrs. Adair would speak to Adair's changed habits over the last few months and J. B. Blayton would relay the extent of the previous conversation concerning the non-sufficient fund checks at the bank. In the end, overwhelming evidence pointed to a self-inflicted gunshot wound to the chest. Although the newspaper reporters at the time did not refer to it
as such, the testimony concerning Adair’s behavior during the last year of his life would lead one to conclude he was suffering from depression as demonstrated by his changed behaviors of home, work, and personal dress. [Atlanta Daily World, 10/7/1937, 1, 6] His funeral was held Saturday, October 9, 1937 and he was buried next to his daughter. [Atlanta Daily World, 10/8/1937, 4] His death was reported in African American newspapers around the country. [Chicago Defender, 10/16/1937, 7; Baltimore Afro American, 10/16/1937, 3] In a sad postscript, his wife Ruth gave birth to their second son, James, in January 1938, just three months after his death. [Adair and Adair, 2010]

ADAIR AS REPRESENTATIVE

Frank Adair Jr.’s success while short-lived illuminates the impact of three factors on the career of an early African American CPA in the Deep South: a vibrant segregated community, a rigorous education at a black college and an active mentor. In Adair’s time, Atlanta hosted a dynamic and vibrant African American business community, especially in the community in which he had come of age. Born the year before the 1906 race riot, Adair spent his entire life in this thriving segregated community. Atlanta, during the career of Frank Adair, Jr., was a city that supported five black Colleges and Universities, and attracted a peerless cadre of students and faculty. The nearby Auburn Avenue Business district was large enough to host numerous African American businesses including a bank, insurance firms, drugstores, theatres, restaurants, and nightclubs among other ventures. [Alexander, 1951, 451-464] In addition to the businesses, Adair was able to work with numerous fraternal organizations and religious institutions located in the city, such as the Odd Fellows, the Prince Hall Masons, and the National Baptist Convention. J. B. Blayton, over the years, would eventually gain the business of most prominent African American organizations not only in Atlanta but across the Southeast (such as the SCLC and the National Baptist Convention), thereby allowing him to have enough clients to support a partner and to give professional experience to other fledgling African American accountants. The success of Frank Adair Jr. demonstrates how a large vibrant community, even in the midst of segregation, gave many young African American businessmen the opportunity to

4 The Adair family possesses an audit report bearing Adair’s signature where he audited the National Baptist Convention in 1932. [Adair and Adair, 2010]
succeed. Dr. Hammond, in her book, notes several individuals who could do accounting, such as Theodora Rutherford and Theodore Jones, but spent years working in other occupations due to the lack of opportunity to practice. [Hammond, 2002, 12-15, 85]

As noted before, gaining experience was not the only hindrance to African American prospective CPAs. Passing the CPA exam, then as now, was considered quite difficult. As one newspaper noted, when speaking of Adair’s achievement, the state board examinations were “recognized in many sections of the country as being more difficult and exacting than those given members of the medical profession.” [Atlanta Daily World, 10/7/1932, A1] To sit for the exam successfully required an extensive education. This was especially difficult for African Americans to obtain. Very few African Americans in that period would have been able to receive even the training necessary for the exam. The majority of the early pioneer African American CPAs received their training at majority northern colleges and universities.

Frank Adair Jr, however, remained in the South and obtained his education at a black college. For any African American in the Deep South, the only options for a college education were to head North to college or to stay in the South and study at colleges and schools specifically created for him. An early survey of African American businesspersons in Atlanta revealed that a significant number received their training at either Atlanta Baptist College (now Morehouse College) or Spelman Seminary (now Spelman College). [Carter, 1894] In particular, few high schools or colleges in the South had classes in accounting. Morehouse began offering its accounting classes when J. B. Blayton started teaching them in 1925. Until the 1960’s, Atlanta University was the only school in the South that offered substantial accounting classes to African Americans. [Hammond, 2002, 5-6; Pierce, 1947, 274] The almost complete lack of access for African Americans to receive a business education is one reason Blayton created the Blayton Business Laboratory. Without the pioneering work of J. B. Blayton in creating the accounting programs at Morehouse College and Atlanta University as well as his own Blayton Business Laboratory, it is difficult to see how Frank Adair Jr. could have received the necessary education to pass the exam. No other city or college in the Deep South offered the same level of opportunity for an accounting education.

Frank Adair Jr. passed the CPA exam when Georgia did not yet have an experience requirement. [GA, 1935, 122] Still, the
experience Adair gained from Mr. Blayton was invaluable. As a mentor, Blayton guided Adair’s path and opened doors for a talented, promising young man. Without a doubt, the lives of J. B. Blayton and Frank Adair Jr. were remarkably intertwined. Adair took classes from Blayton at Morehouse and the Blayton Business Laboratory. Adair would become his partner in the CPA firm and his primary job was in a bank that Blayton owned. Adair also worked at a savings and loan that Blayton had founded and managed. They were both members of the Republican Party and Omega Psi Phi Fraternity. When Adair died, it was Mrs. Blayton who would be called from work to comfort his widow.

The depth of the relationship between the two men reflects the value Blayton had to Adair as a mentor. Blayton was providing opportunities not only professionally and educationally but also socially and politically. Again, this relationship epitomizes the process by which almost all of the African American CPAs would begin their journeys, especially in the days when the experience requirement became common. As noted before, three individuals (J. B. Blayton, Arthur Wilson and Mary Washington) mentored and inspired the large majority of all African American CPAs before 1950 and maintained that influence for years afterwards. [Alexander, 1951, 457; Hammond, 2002, 23-24, 28] Throughout the 20th century, careful study shows the depth and dedication of the pioneer African American CPAs’ commitment to providing opportunities to the minority CPAs that followed them. It is no accident that the motto of the National Association of Black Accountants is “Lifting as We Climb”.

CONCLUSION

Though Frank Adair Jr.’s end was tragic, his life was a not a tragedy but a triumph. In a era of blatant discrimination, he worked within the dictates and structures of his time to achieve great success. Taking advantage of the vibrant Atlanta community in which he lived, the black college where he earned his education, and alongside a mentor willing to give him opportunities to professionally develop, he helped forge new pathways by becoming a pioneer among African American CPAs.

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LOCATING THE SOURCE OF PACIOLI’S BOOKKEEPING TREATISE

Abstract: There is much we do not know about the early development of double entry bookkeeping. What, for example, caused it to be used by sufficient merchants for it to be formally taught to their sons in Northern Italy before anyone had apparently written anything about it? And, what did Pacioli use as the source for his 1494 treatise, the earliest known detailed written description of the method, something that has challenged researchers for at least the past 130 years? Discovering Pacioli’s sources could broaden our knowledge of the Renaissance roots of accounting and of its early role and place in business practice; may provide some insights into the reasons for the emergence of double entry bookkeeping; and may give us further insight into the early instruction of double entry bookkeeping. But, previous attempts to find his sources have failed. Making use of hitherto overlooked information, this paper identifies two periods for which knowledge of Pacioli’s whereabouts would indicate where to focus any search for his sources and suggests where to initiate the search.

INTRODUCTION

And so the probings into the origins of double-entry bookkeeping lead from one speculation to another. [Yamey, 1947, p. 272]

Accounting has evolved over the past ten thousand years [Basu and Waymire, 2006, pp. 213-4] and now bears no resemblance to its earliest known form. During what N.S.B. Gras [1947] described as the ‘era of the petty capitalists’, bookkeeping emerged in its single entry form. During the era which followed and lasted from around 1300 until 1800, the era of the sedentary merchants, the mercantile age, double entry bookkeeping emerged and, ultimately, became widely adopted.

Many authors have speculated on what gave rise to the emergence of double entry bookkeeping and have suggested a
number of contributory factors, including population growth, expansion of trade, the acceptance of credit, educational advances in medieval universities, the growth in the use of agents, joint ventures, partnerships, the switch to a monetary economy, and the increased stability of currency in 13th century Venice (e.g.; De Roover [1942], Yamey [1947], De Roover [1956], Williams [1978], Hoskin and Macve [1986], Edwards [1989], Mills [1994], Macve [1996], Arlinghaus [2006], Carmona and Ezzamel [2009], Oldroyd and Dobie [2009], Heefter [2010]).

While each of the factors offered by these authors may have served to support the growth of business, they were not themselves catalysts that would necessarily have propelled Italian merchants to adopt double entry bookkeeping, and the evidence suggests that they did not (see, for example, Yamey [2004, 2005]). When considered in detail, these hypotheses focus primarily upon the spread of bookkeeping, not the spread of double entry bookkeeping. They also generally fail to acknowledge the impact of Luca Pacioli's bookkeeping treatise of 1494 which was carried across Europe and resulted in a stream of other books largely based upon it which, without doubt resulted in the method described by Pacioli being the one that, ultimately, emerged as 'the' way to record details of financial transactions. That it had this impact can be attributed, at least in part, to its having been the first text on this topic to have been printed.

The influence of the printed text: Supporting this view of the importance of Pacioli's treatise, Yamey [2004, p. 153] suggests that printed books and their use by teachers played an important part in the diffusion of knowledge of double entry, a point previously made by Lane [1945, p. 173] who drew particular attention to the reputation of Venice as "Europe's schoolmaster in bookkeeping and accounting." Nowhere was better prepared at the time when Pacioli's treatise was printed to disseminate his Venetian method of double entry bookkeeping than Northern Italy with its schools specializing in mercantile education for sons of merchants.

These 'abbaco' schools emerged in the early 13th century and included, in some cases, classroom tuition in bookkeeping [Grendler, 1989; Arlinghaus, 2004, p. 148]. One example occurred in 1285 in Perugia, arguably the most mercantile of all the cities in Northern Italy at that time, when the city council

1 According to Barker and Kleinhenz [2004, p. 875], control of Perugia by the nobility ceased in 1214 and from the mid-13th to the mid-16th century, Perugia was run as a commune and then a republic by the guilds, of which the merchant
founded a Studio where, "eminent professors taught grammar, logic, law, medicine, philosophy, moral issues, and mathematics applied to business and accounting... [to] many young people seeking to improve their knowledge and prepare them [mainly] to undertake commercial activities" [Cavazzoni, 2006, p. 4, translated by the author, emphasis added].

Although it is known that bookkeeping was taught in some of these schools, the absence of any extant teaching manuals on the subject suggests that bookkeeping was taught mainly in the workplace rather than by bookkeeping tutors. However, by the 15th century, this was no longer the case [Arlinghaus, 2004]. Luca Pacioli's 1494 treatise on double entry bookkeeping was the first of a number of printed (and so widely available) textbooks on this topic, setting the basis for standardisation of the method and its wider adoption: it stands to reason that just as accountants who were trained in double-entry bookkeeping methods would probably advocate its use when they encountered other systems [Jones, 1994], merchants who had been taught double entry bookkeeping at school would probably have adopted that system in their business.

Yet, there is much we do not know about the early development of double entry bookkeeping. How, for example, did it come about? What caused it to be used by sufficient numbers of merchants for it to become part of the abbaco school curriculum before anyone had apparently written anything about it? And we also know little about the source, if any, for Pacioli's treatise. While it is widely believed that Pacioli based it upon one or more extant bookkeeping treatises (see, for example, Hernández-Esteve, [1994]), we do not know if this is the case. This is the focus of the present study: what material, if any, did Pacioli use as the source for his treatise?

Before considering how progress can be made towards answering this question, the relevance to accounting scholars of doing so is presented in the next section. It begins by recounting some of the known details of the emergence of double entry bookkeeping in business and in education. The paper then considers why finding Pacioli's sources would be of interest to accounting scholars. It then considers what information we have that may guide any search for those sources, identifies two distinct periods, one when Pacioli would almost certainly have had any source documents in his possession and a later one when he may have done so. The paper concludes by calling for
archival searches in the places where he was in those two peri-
ods of time.

THE EMERGENCE OF DOUBLE ENTRY BOOKKEEPING
AND ITS EARLY INSTRUCTION

The first acknowledged instance of the use of double entry
bookkeeping was by an Italian firm in Southern France in 1299
[Lee, 1977; Smith, 2008] but it was a further 160 years before
the first known manuscript to contain a description of double
entry bookkeeping was written, by Benedetto Cotrugli in 1458.2
Although the invention of moveable type printing occurred in
Germany in 1454, it was another 10 years before the first such
press was established in Italy [Sangster, 2007, p. 127], and a
further 30 years after that innovation before the first book was
printed which contained a description of double entry book-
keeping – Luca Pacioli’s treatise in his Summa de Arithmetica
Geometria Proportioni et Proportionalita (Summa) of 1494.

As mentioned in the Introduction, it has been suggested
that Pacioli’s treatise on bookkeeping was based on one [or
more] existing bookkeeping tutor manuscripts (Vianello [1896,
p. 116]; Yamey [1967, 1994, pp. 20-21]; Hernández-Esteve
another view, believing that Pacioli himself wrote the bookkeep-
ing treatise, but his is a lone voice and Pacioli’s own statement
in Summa that the book contains nothing that is original adds
support to the majority view. However, no earlier manuscripts
on double entry bookkeeping have been found and, as a result,
we have no evidence to confirm or refute either view, leaving us
with the question that has troubled accounting historians for
over 130 years still unanswered: Did Pacioli write the treatise
himself and, if he did not, what sources did he use?

When we face a situation that we simply do not know which
of two views is correct, in the absence of evidence to the con-
trary, we side with a reality that corresponds with the facts we
know. But, in this case, we know very little. Hernández-Esteve
[1994] presents a compelling case for Pacioli having based his
treatise on one or more sources but this does not eliminate the
possibility that Pacioli was himself the author of those sources,
especially given Pacioli’s background and teaching activities
in both universities and schools3. Melis may be a lone voice in

2 Cotrugli wrote a 5-page description of the method. Unlike Pacioli, he did not
attempt to give detailed instructions on how it should operate.

3 See, Sangster [2011] for an overview of Pacioli’s career as a teacher at both
the literature but this may be a situation where the exception is correct. Melis's theory is also the only one of the two opposing views that can be refuted by falsification and doing so is the only way in which uncertainty may be removed from this debate.

To this end, this paper adopts a Popperian stance\(^4\), seeking to falsify Melis's theory by finding evidence that demonstrates that it is incorrect. So long as no such evidence is found, current theory, in this case, Melis's view that Pacioli wrote the treatise himself cannot be disproved and the uncertainty continues. Pacioli's handwriting has survived and was used to confirm his authorship of the book of chess problems attributed to him in 2006. If his sources are found, similar examination of the handwriting may resolve whether or not he was the author.

Despite all that has been written on the topic of Pacioli's bookkeeping treatise, we are scarcely beyond the point of the first stage of discovery concerning its origins. In part this is because, with the exception of Fabio Besta who oversaw an extensive search of archives in Venice in the late 19th century [Vianello, 1896, p. 116], few have devoted time to a search either for the manuscript of *Summa* or for the manuscript of the bookkeeping treatise which Pacioli prepared, nor conducted a search for any documents upon which Pacioli may have based his treatise.

The fact that such documents have not been found does not eliminate the possibility that they may still be discovered – in 2000, Postma and Van Helm reported the discovery of 21 folio sheets\(^5\) containing 50 lines of instruction in double entry bookkeeping and 266 examples of journal entries,\(^6\) some of which date from 1440 or earlier.

The present author has located abbaco manuscripts which appear to include accounting instructions from the late 13th and 14th century unknown by accounting scholars in the archives of Florence. It is likely that many other documents exist in Italian private archives, and the archives of communes, banks, libraries, churches, and museums which have not, as yet, been studied by accounting scholars. Among them, as Fabio Besta believed, we may find evidence to refute the tentative theories levels.

\(^4\) See, for example, Heil [1998, p. 162]. Through such an approach, scientific discovery progresses: we develop tentative theories which we seek to refute and, in so doing, we develop a progressively deeper understanding of the subject that, in turn, leads to new tentative theories that we, once again, seek to refute.

\(^5\) A page is a side of paper, so folio sheets each represent two pages.

\(^6\) Pacioli's treatise is approximately 24,000 words in length and contains examples of 25 journal entries.
that have been espoused for the past 130 or so years, and move forward the discourse and development of our understanding of, not just whether or not Pacioli penned his treatise without reference to other sources, but to the roots of the development of double entry bookkeeping itself.

WHY IT WOULD BE WORTHWHILE FINDING PACIOLI'S SOURCES

Finding Pacioli's sources may take us closer to identifying what led to the emergence of double entry bookkeeping and a better understanding of how it became sufficiently commonplace for a treatise to be printed for the use of merchants and their sons7 on how to adopt the method. From such documents, we may also discover more about how double entry bookkeeping was taught while it was developing into the method described by Pacioli, particularly if, as has been suggested, such documents pre-date Pacioli's treatise by at least 40 years – see Hernández-Esteve [1994, p. 69].

One thing is clear: Pacioli's manuscript was in Venice during the printing of Summa. What is unclear and has never previously been considered beyond the level of speculation8 is: when did Pacioli actually work on preparing his treatise for publication and where was Pacioli when he did so? This may not help us find his manuscript but it may help us find the sources he may have used in writing it.

Discovering when and where he wrote his treatise may lead us to being able to undertake a more focused search of relevant archives, such as the one Fabio Besta undertook in Venice when he determined that Pacioli was likely to have used the manuscript of a Venetian bookkeeping tutor as his source. Besta failed in his search but that does not mean such a focused search elsewhere would be similarly fruitless.

This paper now considers how we might locate Pacioli's sources.

FINDING PACIOLI'S SOURCES

Over the past 130 years, a number of attempts have been made to locate contemporary records and documents relating to or referring to Pacioli. Boncompagni found information on Pacioli in Italian university records and municipal records [1879].

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7 See, Sangster, Stoner, and McCarthy [2008, 2011].
8 See, for example, Nobes [1995, p. 383].
Seventy years ago, Ricci discovered documents in Sansepolcro concerning Pacioli’s later life in that town [1940]; and Nakani­shi [1979] followed-up on this work by searching the records of deaths in the convents of Sansepolcro, Perugia, Urbino, and Florence, ultimately finding a note recording Pacioli’s death on June 19, 1517 in the Santa Croce convent records in Florence.

Shortly thereafter, Van Egmond [1981] published his extensive analysis of extant abbaco school texts, including Pacioli’s *Summa*. His work was derived from a search through libraries and private collections. He found one manuscript book written in 1522 that described Pacioli as a perceptive teacher but found no bookkeeping text that predated Pacioli’s treatise. Yet, as anyone investigating this topic in the Italian archives will soon realise, many more abbaco texts predating Pacioli have survived than were identified by Van Egmond, a great number of which have not been examined by accounting scholars.

In 1994, Jayawardene, author of a biography of Pacioli in 1971, concluded his presentation at a conference held in San­sepolcro in memory of Luca Pacioli with a call for research in the archives and libraries of the cities where Pacioli lived and worked, “in order that some hitherto unknown detail of his life may be revealed” [Jayawardene, 1998, pp. 27-28].

Jayawardene’s call for archival searches remains largely unanswered and we are no closer to discovering the source of Pacioli’s treatise today than we were when Boncompagni published his text about Pacioli in 1879.

Just as Nakanishi [1979] focused his successful search for a record of Pacioli’s death upon places where he was most likely to have died, any search for the sources Pacioli used would surely have the greatest chance of success if we focused upon where those documents are most likely to have last been consulted by him. At first glance, this may appear a ridiculous suggestion – how can we look for his whereabouts when we do not know the period during which he last worked on his treatise? However, we have sufficient information to deduce that he did so over a relatively short period, and it is information that has been entirely overlooked by accounting scholars.

**WHAT WE KNOW**

Evidence in the treatise identifies the period when Pacioli prepared his manuscript. This evidence has been in full view of all readers of Pacioli’s treatise but, presumably due to interference from modern contextual norms, it has been overlooked.
Nowadays, to elongate the life of a textbook and so increase sales and total royalties, authors use dates in the future when they write their original text so that readers do not sense that they are reading something that is ‘old’. Doing so extends the life of the edition and eliminates one motivation for readers using another source. However, that was not something of which an author of a text in 1494 would have been interested – they were not paid by their publishers for their books and did not receive royalties [Febvre and Martin, 1984, pp. 159-161] – and there is no reason why dates in texts would not have been contemporary with when they were written – so, for instance, if an example was written on August 6th, 1493, that was the most likely date to be used in the text.

Thus, in comparison to today, textbooks such as Pacioli’s Summa were not written for personal gain, but to spread knowledge. The first printing of Pacioli’s Summa had a shelf life of 29 years. The second printing in 1523 did not include any changes in the dates that Pacioli used in the first printing of 1494. Clearly, no importance was placed upon the dates in the text by either the author or the printer.

On this basis, the dates Pacioli used in his treatise indicate he was working on it both immediately before and during the year or so that it took to print Summa [see Sangster, 2007]. Printing practice at that time also provides an indication of when Pacioli may have been working on it after completing his first draft prior to the commencement of printing of Summa.9 Combining these two items may reveal a window of time when knowledge of his whereabouts may be most usefully sought and a search undertaken for his sources.

*The Dates in the Text:* Pacioli implies in the Introduction to his treatise that it was a last-minute addition to Summa and virtually all the dates in the treatise are in November 1493. This is just a few weeks before his printer is likely to have started printing Summa.10 Only one date used in the treatise is not from that month: April 17, 1494 which appears once in Chapter 35, on the 4th last page of the treatise, suggesting a first draft was completed in November 1493 and that this was revised by Pacioli during

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9 Printing could have commenced without the bookkeeping treatise but that would have presented the printer with potential problems in avoiding blank pages at the end of the volume. The printer needed to know the lengths of all parts before printing started if he was to schedule the pagination of Summa accurately.
10 The completion date of last known work undertaken by the printer before Summa was December 9, 1493 [Sangster, 2007].
April 1494. In support of this hypothesis, there is a reference in Chapter 20 of the treatise [folio 204v] to a specific range of folios in an earlier part of *Summa*, something Pacioli could not have known before printing began.\(^{11}\)

The most likely location of the source document(s): Once the manuscript was completed in November 1493, it is unlikely that Pacioli would have needed to refer again to his source documents. Consequently, they are most likely to have remained where he was at that time. This, therefore, is the most likely location in which his source document(s) may be found. At that time and until the end of December, Pacioli was in Padova [Antinori, 2000, p. 13], presumably working at the university.

A possible alternative location: In the unlikely event that he did not leave his source documents in Padova, the most likely place to look for them would appear to be Venice. Pacioli stated himself in *Summa* that he attended the printing. Doing so enabled him to have access to the rest of his manuscript and to the pages already printed, so ensuring that he could cross-reference correctly from the treatise to earlier material as he revised the manuscript of his treatise. However, the period for which his whereabouts are relevant goes beyond April 1494.

Even though he was revising the manuscript that month, he did not finish doing so before it was printed: the final page is missing explanatory text essential if its aim and purpose is to be properly understood [Sangster et al., 2013]. While he clearly left his manuscript with the printer so that it could be printed on schedule, he may have had his sources with him after April 1494 and intended writing some explanatory text to insert into the final page, but never did so. As will be seen, the period when it would have been possible for him to do this and complete it in time to be included in the printed treatise extends considerably beyond April 1494.

Based on the speed of printing identifiable from dates in *Summa* and the possibility that the treatise was printed after, rather than before the treatise on tariffs that follows it at the end of Volume 1 of *Summa*,\(^{12}\) that date could have been as late as mid-July 1494. This is shown below.

\(^{11}\) While the printer could have entered the folio numbers at the time of printing, this is unlikely, particularly when the author was present through much of the printing, as Pacioli claimed he was.

\(^{12}\) For a discussion of this point, see Sangster [2007].
While it is likely that Pacioli was in Venice in April 1494, it does not appear that he was there during printing of the bookkeeping treatise [Sangster, 2007, p. 138]. He may, in fact, have been absent from Venice throughout much of the 2 to 3 month period from mid-April 1494 until the printing of Volume 1 of *Summa* ended in mid-July. Thereafter, he was probably in Venice to oversee the far more complex typesetting of the second volume of *Summa*.13

The Venetian archives have already been searched, making this an unlikely location in which to find the source documents for the treatise. As to where Pacioli may have been during those three months, it would not have been far from Venice in case he was called back by his printer. If he did have his sources with him at that time, any search for them needs to start by locating his whereabouts and then looking in the local archives, whether they be held by universities, municipalities, convents, libraries, museums, banks, or private individuals.

**Summary:** Returning to the more likely location of the source documents used by Pacioli, any search ought to start where he was when he drafted his treatise: Padova. If that proves fruitless, as shown above, in the unlikely event that he took the source documents with him in order to complete revising his manuscript, and if a new search of the Venetian archives is either not undertaken or proves unsuccessful, the next most likely location where they may be found is wherever he was during the three

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13 Typesetting imperfections in the bookkeeping treatise would not have affected Pacioli’s reputation but, Pacioli, the famous mathematician, risked ridicule if his mathematical diagrams which fill the margins throughout the geometry volume of *Summa* were incorrectly printed. He surely would not have left his reputation as a mathematician in the hands of others.
months between mid-April and mid-July 1494. However, the available evidence does suggest that efforts to locate his source documents should centre upon Padova.

CONCLUSION

The investigative approach adopted in this paper is, of course, open to challenge. Nevertheless, the analysis presented is consistent with the information available. In Popperian terms, it is a tentative theory, but one which is defensible until such time as it may be refuted. It offers considerably more guidance to researchers than has previously been the case. If source documents are found, accounting scholars will be able for the first time to establish Pacioli’s true contribution to our discipline and, perhaps, to identify someone more appropriate to wear the accolade of “father of accounting”.

The most likely location of Pacioli’s sources appears to be Padova and any search for them should start in the archives in that city. As Pacioli was a prominent member of his order and probably stayed in a convent in the city, any archives held by the convents, and especially those of the Franciscan order would probably be the best place to start.

Should a search of the archives of Padova prove to be fruitless, a search of the archives of the convents of the Franciscan order in, and relatively close to, Venice for a record which indicates he was staying in one or more of them during the three months from mid-April to mid-July 1494 may indicate where else to look. This could then be extended to a search for the sources of his bookkeeping treatise in the archives in the locations identified. Such archival searches are not new to enquiries concerning Pacioli. Quite apart from Boncompagni’s search [1879] of municipal archives, Ricci’s [1940] search of the Sansepolco archives and Nakanishi’s [1979] search of convent archives, as recently as 2009 Elisabetta Ulivi reported that she had found evidence in the Sansepolcro archives of Pacioli’s presence there in the 1480s which shed new light on when he joined the Franciscan order.

Echoing the quotation from Basil Yamey at the start of this paper, we must speculate to accumulate knowledge of our past. We must look where no-one has thought to look and take note of signs that may guide us to do so. This paper has identified signs that may guide us in a search for the sources used by Pacioli when writing his bookkeeping treatise.
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Salmagundi*

The editor invites you to submit items of an interesting nature, including reviews, discussions about accounting theory or practice, responses to past articles in the journal. Perhaps you could find an accounting cartoon? In this volume we’ve included two submissions, both submitted by Barbara Merino, one, a review by Christopher Colvin of Queens University in Belfast of a book on antitrust. Another, a short on Pacioli found in Bloomberg.net. Our friend Alan Sangster may have a response to this. In both cases we received approval to reprint. Do you have thoughts for or against the convergence of IFRS and GAAP? What do you think of the possible leasing standard? Speaking of theory – why is there so little discussion of it?

*A mixture or assortment; a potpourri.
In Memorium

I am sorry to report the death of a colleague and friend: Louis J. Stewart on September 19, 2012. I met him several times at conferences and he was a delight – full of good spirits and conversation. We were in contact shortly before his death and he gave no indication that he was ill. I was expecting him at the historians’ workshop at the AAA in Washington DC having spoken to him shortly before that and was disappointed that he did not show. I extend all of our sympathies to his family.

Louis J. Stewart was born in Charleston, South Carolina and raised in Philadelphia, Pennsylvania. He attended Central High School where he starred in track and cross-country. He matriculated at Franklin and Marshall College in September 1969. He continued to compete in cross country while majoring in history. Louis was also active in the African American Student Society. He earned his bachelor of art degree from the College in 1973. Louis continued his education at the University of Chicago where he earned his MBAS with a dual concentration in accounting and finance. Since his graduation from the University of Chicago in June 1975 Louis worked as a financial analyst at the United Way of Chicago, as the controller of Chicago Child Care Society, and the chief financial officer of the Englewood Community Health Organization over the next seventeen years. He earned his CPA during this time. Louis prepared himself for a second career in higher education by earning a PhD from the University of Wisconsin in Madison. He joined the faculty of the School of Business & Industry at Florida A&M University where he taught undergraduate and graduate accounting courses for four years. In 2000, he joined the healthcare management and finance faculty of the Robert Wagner Graduate School of Public Service at New York University. In 2003, he joined the Accounting and Business Law Department at School of Business, Public Administration, and Information Sciences at Long Island University, Brooklyn Campus.

In 2005, he became an Associate Professor of Accounting at Kean University Dr. Stewart has published in the Journal of Corporate Accounting and Finance, Healthcare Financial Management, Research in Healthcare Financial Management, the Journal of Health Care Finance, the Journal of Healthcare Management and the Accounting Historians Journal. He was a contributing editor for the Healthcare Controllers’ Desk Manual He is survived by his wife, Valarie, daughters Patrice, Sarah and Jessica, son Louis Stewart Jr and his brother Nathaniel Stewart.
How a Medieval Friar Forever Changed Finance

bloomberg.com July 12, 2012

Consider some headlines from the past week. China announced its gross domestic product had slowed to a three-year low of 7.6 percent in the latest quarter. The International Monetary Fund cut its global growth forecasts to 3.9 percent for 2013. And Citigroup Inc. announced its net income was down 12 percent.

The system that generates these 21st-century accounting figures -- the numbers that run our nations and corporations -- was first codified by a Renaissance friar named Fra Luca Bartolomeo de Pacioli. He was at one time more famous, as a mathematician, than his collaborator Leonardo da Vinci.

Pacioli is remembered today, if he's remembered at all, as the father of accounting. He wrote the first mathematical encyclopedia of Europe, which made two critical contributions to modern science and commerce: It was the first printed book to explain Hindu-Arabic arithmetic and its offshoot, algebra, and it contained the first printed treatise on Italian accounting.

Algebra would underpin the Scientific Revolution; Italian accounting, the Industrial Revolution.

DOUBLE ENTRY

As his encyclopedia was going to press in Venice in 1494, Pacioli added a 27-page summary of a new form of accounting that had first emerged in Italy around 1300 and been perfected by the merchants of Venice. He called the addition a "special treatise which is much needed" to help merchants keep their accounts in an orderly way.

Known in the 15th century as accounting "alla Veneziana," the system is now called double-entry bookkeeping and is standard practice throughout the world. In 1494, it was exceptional -- and in his treatise Pacioli recommended it above all others.

In their ledgers, Venetian merchants separated debits and credits, dividing them into two columns. As Pacioli wrote: "All the creditors must appear in the Ledger at the right-hand side, and all the debtors at the left. All entries made in the Ledger have to be double entries -- that is, if you make one creditor, you must make someone debtor."

Pacioli's system was revolutionary because it allowed merchants to calculate increases and decreases in their wealth, re-
corded in their capital account. In other words, it allowed them to determine that driver of capitalism: profit (or loss). Pacioli wrote that the purpose of every business was to make a lawful and reasonable profit, which could be tallied with Venetian bookkeeping. And thus the seed of capitalism was planted.

Because Pacioli used the recently invented printing press to record and disseminate Venetian double entry, the system swept across Europe during the next two centuries and then to the U.S.

By the 18th century, Italian bookkeeping had become so pervasive that it had spread beyond the realm of commerce and into culture. Daniel Defoe famously applied it in his 1719 novel “Robinson Crusoe” when the shipwrecked Crusoe uses double entry to assess his life, drawing up his “State of Affairs” and comparing “very impartially, like Debtor and Creditor, the Comforts I’d enjoyed, against the Miseries I suffered.”

A NEW PROFESSION

Fittingly, it was in the economic heart of the Industrial Age -- Great Britain -- that Venetian bookkeeping came into its own. The rise of factories and the flourishing of the joint-stock company transformed double-entry bookkeeping into a brand new profession: accounting.

The huge amounts of capital expenditure required to build railways -- raised from private investors on stock exchanges and managed by joint-stock companies -- brought new issues of accounting and accountability. By the 1860s, accountants were legally required in Britain at every phase of a company's life: at its formation, during its operation and at its liquidation.

Although financial statements had been an incidental product of a company's bookkeeping in 1800, they had become its raison d'être by 1900. Venetian bookkeeping proved to be the perfect mechanism for generating these financial statements. It could accurately record capital and income as required by law and investors, it could distinguish between private expenses and corporate costs, and it could produce data that helped evaluate past investment decisions.

Venetian double entry thus became essential to the modern corporation. In the 20th century, it became equally essential to the nation state. With the crash of the New York Stock Exchange in 1929, and the Great Depression that followed, the laissez-faire principles that had previously informed government approaches to economic affairs suddenly seemed insufficient. At
sea in their response to the crisis, the administrations of Herbert Hoover and Franklin D. Roosevelt commissioned comprehensive estimates of the income of the U.S. to guide their policies.

Soon after Roosevelt succeeded Hoover as president and began the New Deal, the British economist John Maynard Keynes travelled to the U.S. to see the policies in action. In Washington, Keynes said: "Here, not in Moscow, is the economic laboratory of the world."

**THEORY, PRACTICE**

This signified a momentous change in government practice, and in economic theory. If Roosevelt’s response to the Depression was the New Deal, then Keynes's was his “theory of effective demand.” Published in 1936, it provided a theoretical basis for the measurement of national income, consumption, investment and savings.

Both Roosevelt’s program and Keynes’s theory entailed the creation of national accounting systems, a massive undertaking that was carried out using the principles of double-entry bookkeeping.

At Keynes's instigation, the first British accounts were made during World War II. Following the war, national accounts were created in countries across Europe as part of the framework of the Marshall Plan. And under the aegis of the newly created United Nations, national accounts were subsequently adopted by almost every nation on Earth.

Today, we depend on the numbers generated by the accounts of nations and corporations to direct our governments, businesses and societies. And so it happened that a medieval Italian accounting system codified by a friar in 1494 now governs the global economy.

(Jane Gleeson-White is the author of “Double Entry: How the Merchants of Venice Created Modern Finance.” The opinions expressed are her own.)

Read more Echoes columns online.

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XII NATIONAL CONFERENCE OF THE ITALIAN SOCIETY OF ACCOUNTING HISTORY

“Ragioneria” and Accounting between 19th and 20th Centuries: A Comparison in Trends and Theories

PARMA, NOVEMBER 2013
DEPARTMENT OF ECONOMICS - UNIVERSITY OF PARMA

CALL FOR PAPERS

Academic and operational environments, characterized by cultural contexts, differ widely between Italy and the rest of the world. International comparison has become essential in Accounting and Business Economics studies in Italy today. But internationalization should not mean uncritical compliance with methodological and conceptual models from other countries. Extensive knowledge and experience from the Italian and European contexts is available to enrich research and differentiate between southern and northern European / US models.

The XII National Conference of the Italian Society of Accounting History discusses how this breadth of research has contributed to the growth of knowledge. The Conference focuses on the period between 19th and 20th centuries and the contemporary history of Business Economics and Accounting studies. The breadth of the Conference theme is intended to encourage researchers to address new, unexplored topics and to challenge conventional wisdom using rigorous economic analysis. Without intending to limit the scope of the Conference, we offer some examples of topics for which submissions are invited:
• key changes and developments in "Ragioneria" and Accounting;
• points of convergence and divergence in Accounting theories in different cultural contexts;
• the influence of institutional and academic systems on the development of these studies;
• the position of Accounting and Business Economics studies in other countries than Italy;
• main influences of "Ragioneria" and Accounting studies on the Accounting profession;
• impacts of the changes in environment systems, accounting theory and theoretical settings;
• how changes in different national and international economic systems affect theory of accounting and business.

Abstracts (minimum 2,500 words), in Italian or English, must be submitted electronically by January 15, 2013 to the following address: parma2013@sisronline.it. Preliminary acceptance on the basis of the abstract will be notified by February 15, 2013. Abstract must state clearly the aim of the research, methodology, main expected results and references.

The final paper (maximum 50,000 characters, including spaces), should be submitted electronically – in .doc and .pdf format – no later than September 2, 2013 to the following address: parma2013@sisronline.it. Final acceptance of paper will be on the basis of the full text of papers and authors will be notified by October 1, 2013.

Authors are further invited to submit their work for possible publication after process of refereeing to the Italian Journal Contabilità e Cultura Aziendale of the Italian Society of Accounting History (rivista-cca@unisi.it).
IN ANTITRUST WE (DO NOT) TRUST¹

Christopher L. Colvin²

I will be teaching industrial organization (IO) to undergraduates next year. It is a brand new course, and so I have been trawling though the websites of IO teachers around the world for inspiration. Overall, I have been quite perplexed with what I have found: undergraduates seem to be fed material that is very theoretical and computational, with little or no context or application. Perhaps this prepares students well for graduate programs in economics, but the vast majority of economics undergraduates are not going to be doing a PhD. And even those that do will require exposure to some empirical research.

I want my students to use their microeconomics, to get them to appreciate that real life is dirtier than in the models. And I want them to understand that economic ideas are not fixed in time and space, that a log-run perspective can reveal very different insights about human behavior. I plan to do so by limiting the use of textbooks and instead delving into academic papers and antitrust cases. I feel economic history should play center stage in an economics degree, not relegated to being an obscure field study. So, when teaching sunk costs and market structure, I will look at the decline of Europe’s film industry in the early twentieth century;³ when covering collusion, I will set them the US sugar cartel of the 1930s;⁴ when explaining natural monopolies, I will examine Victorian railways;⁵ and when looking at the efficacy of patents, I will do nineteenth century alternatives.⁶

I am also keen to find something accessible that students can use to appreciate the origins and evolution of competition policy – including why it differs by place, and how legal decisions based on economic arguments made long ago still have resonance today. I want to teach them some history of economic

¹ An older version of this comment was posted on the NEP-HIS blog (http://www.nephis.org/), a weekly blog that discusses new working papers in business, economic and financial history sourced from the RePEc digital library (http://repec.org/).
² Affiliation: Queen’s University Belfast. Email: chris.colvin@qub.ac.uk.
³ Bakker (2005).
⁴ Genesove and Mullin (2001).
⁵ Freman-Peck (1987).
⁶ Brunt, Lerner and Nicholas (2011).
thought. One paper that I hope to discuss in this context is Nicola Giocoli’s new working paper, entitled “British economists on competition policy (1890-1920)”.

Giocoli, an Associate Professor of Economics at the University of Pisa, looks at the reaction in the UK to the advent of antitrust in the US. He finds that academically and politically influential British economists Herbert S. Foxwell, David H. McGregor and Alfred Marshall were dead against US-style anti-monopoly legislation. They believed it would be difficult to implement, run counter to the ideals of a free market, and be inappropriate in the UK industrial context. The UK had to wait until 1948 for the Monopolies and Restrictive Practices (Inquiry and Control) Act, 1965 for the Monopolies and Mergers Act, and 1998 for a fully independent competition authority.

What I think is particularly important about Giocoli’s paper for my students’ understanding of the evolution of IO is his description of a transformation in what economists thought competition entailed. For classical economists, competition was about firm conduct; they adopted a dynamic process-based view of competition. For the neoclassical economists that followed, competition was more about market structure, the market condition; this static view was more concerned with business size and the number of competitors. For someone teaching modern IO theory, this is fascinating. Over the last two (or three) decades, IO has seen a paradigm shift from the old structure-conduct-performance view of competition – which primarily concerned itself with measuring market structure – to the so-called “new industrial organization” view – which, apparently much like the view held by the economists described by Giocoli, is far more concerned with figuring out firm conduct and does not necessarily draw a causal link between structure and performance. In short, it appears we have come full circle.

I like Giocoli’s paper because he tries to marry his history of economic thought with up-to-date research in economic history. Instead of seeing the US as a success and Britain as a failure – a view associated with the work of business historian Alfred D.
Chandler\(^{12}\) – Giocoli argues that competition law was unnecessary because Britain was largely still a success, ahead of everyone else terms of total factor productivity – it did not require government intervention in the form of antitrust legislation. I would encourage Giocoli to further develop this argument by looking at some of the work of LSE business historian Leslie Hannah, whose career has been devoted to debunking Chandler. His articles show that the "Chandlerian corporation" was actually far more a thing of Europe than America.\(^{13}\) A monopolist like Standard Oil – the company whose breakup must be central to any history of antitrust – was the exception rather than the rule. US capitalism is a story of small family-run enterprise, not big business. How does this revision of the business history affect Giocoli's argument?

REFERENCES


\(^{12}\) See, e.g., Chandler (1969).

\(^{13}\) See especially Hannah (2008).
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