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Thought and Accounting Practice

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THE EFFECT OF REGULATION ON STATEMENT DISCLOSURES IN THE 1915 MOODY'S MANUALS

Abstract: United States firms in the early 20th century were subject to public and private regulation. Forms of regulation included rate regulation and stock exchange listing requirements. These regulations created incentives to report income statement information. This study utilizes the *1915 Moody's Analyses of Investments* to test whether regulated firms in the United States reported more income statement information than unregulated firms. Rate regulation influenced utilities to report income statements more frequently than industrial companies. Stock market listing requirements also influenced the reporting of income statements. Therefore, the results indicate that both public and private regulations influenced financial reporting in the early 20th century. Another finding of the study is that income statements were more frequently reported than balance sheets for both railroads and utilities.

INTRODUCTION

The importance of income statement versus balance sheet information has increased over time. A major shift from the balance sheet to the income statement occurred during the 20th century as the income statement began to be used to assess the ability of a firm to generate wealth [Buckmaster and Jones, 1997; Jones and Aiken, 1994]. The need for financial reporting may be better understood by investigating the causes of this shift in emphasis.

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In the late 19th and early 20th centuries, the balance sheet was dominant because it provided information on the stewardship function of management and information about capital [Gilman, 1939]. These were important issues for early investors in stocks. They wanted a secure investment. Banks also sought information on collateral for loans [Corcell, 1989]. As the financing needs of corporations grew and reliance on equity issues for capital increased, the income statement grew in importance.

Competitive factors were significant in limiting operating and profit information. Profitable industries did not want to attract competitors or cause labor to demand higher wages [Michael, 1996]. Few details about income components were reported [Lee, 1979; Morris, 1984; Baldwin et al, 1992]. The 'British Secretive Model' with minimal disclosure and a balance sheet focus has been used to describe reporting at the turn of the 20th century in the United States [Michael, 1996].

In the 1870s, the public and other businesses were unhappy about what was perceived as excessively high fares by U. S. railroads [Ulen, 1980; Trebing, 1984]. The debate that grew out of these concerns resulted in railroad and utility regulation. The 1890s also saw the growth of individuals investing in stocks and the rise of organized U. S. stock exchanges to facilitate these investments [Navin and Sears, 1955; Bryer, 1993]. These exchanges then reacted to investor information needs and created listing requirements to regulate the information that listed companies had to provide investors [Sivakumar and Waymire, 1993; Normand and Wootton, 2001; Gross, 2002]. U.S. legislation was also passed to regulate the disclosures of listed companies [Previts and Bricker, 1994].

This paper examines the role that these forms of public and private regulation in the United States had on the amount and content of income statement and balance sheet disclosure for railroad, utility, and industrial companies. The study empirically tests whether these regulated industries provided more frequent income statements and greater amounts of income statement disclosures, looking at rate regulation and stock market listing requirements as separate types of regulation. The disclosure of revenue by rate-regulated industries is also examined. The paper examines whether regulation created pressure to disclose more income statement information. The current accounting history literature indicates that the income statement was not a prominent nor consistently provided statement in the U.S. until the 1920s. This study will add to the debate about when the income statement became prominent and the factors that influenced its rise to prominence and usefulness. Therefore, the role that regulation played in the shifting focus from the balance sheet to the income statement orientation is examined.

United States company reports in the *1915 Moody's Analyses of Investments* are used to determine if income statements were more commonly provided and/or were more detailed for regulated versus unregulated companies. Moody [1915] reported the information that was made public by companies followed by his investment service. This public information was used to rate the bonds and stocks of companies for investment quality. Moody's reported on a large number of firms. The company reports are examined in this paper to determine whether an income statement and balance sheet were provided. Statistical tests are utilized to verify relationships. Large samples also enhance generalizability of the results. This empirical approach extends the literature base by using another methodology to examine the issue of the importance and prominence of income reporting. Different methodological approaches which find similar results make those conclusions more credible. Conversely, the use of alternative methodologies can often lead to different conclusions.

The results for rate regulation indicate that utilities were more likely to provide an income statement than industrial companies. The utility income statements were also significantly more detailed than the industrial statements. No significant differences were found for frequency or detail of income statements for railroads versus industrials or railroads versus utilities. Furthermore, while almost all railroad and utility income statements disclosed revenues, less than half of the industrials examined that provided an income statement reported revenue. Industrial companies were more likely to disclose a balance sheet than railroads or utilities. The industrial balance sheets were also significantly more detailed than those disclosed by railroads and utilities. Thus, rate regulation was shown to be a significant catalyst to the preparation and publication of an income statement, calling into question the conclusion of the predominantly descriptive literature that the income statement did not become prominent in the U.S. for another decade.

Stock market regulation (listing requirements) also influenced the likelihood of reporting an income statement. Companies listed on a stock exchange were more likely to report an income statement than unlisted companies. The detail of the income statement was shown to be greater for listed companies as well. The results also indicate that listed companies are more likely to report a balance sheet and the balance sheet of listed companies is more detailed than those of unlisted companies. The results concerning the regulatory influence of listing requirements thus shows that they increased disclosure of both statements.

The next section of the paper discusses regulation as it affected income statement disclosure and develops hypotheses. The succeeding section discusses the data and methodology used to conduct the empirical tests. This is followed by a discussion of the results, summary and conclusion.

REGULATORY EFFECT ON INCOME STATEMENT DISCLOSURE

This study considers rate regulation for railroads and utilities and stock market listing requirements as external factors that influenced company reporting decisions. Both factors are referred to as regulations, but only rate regulation is a true regulation in the sense of being imposed by law. Stock market listing requirements are a form of self regulation that companies subscribe to on achieving stock exchange listing. Table 1 provides a summary of the various statutory rate regulations and New York Stock Exchange (NYSE) requirements, the dates they became effective, and the companies that were covered by the regulation.

Rate Regulation of Railroads and Utilities: Trebing [1984] defines economic regulation as control over prices and earnings and the restriction of entry/exit by enterprises within regulated markets. In the late 19th century, there were public outcries for economic regulation of railroads and utilities in the U.S. [Ulen, 1980]. A number of mid-west states passed the Grange Laws in the 1870s. These laws gave states the ability to regulate railroad rates. The rates were based on return on invested capital assets [Boockholdt, 1978]. The United States Supreme Court upheld the power of states to regulate prices of firms that possessed the economic power to exploit customers in Munn vs. Illinois [1877] [Trebing, 1984]. As a result, both railroads and public utilities became regulated industries.

Boockholdt [1978] notes that the use of these return on invested capital rate setting regulations coincides in time with the increased use of the retirement method of depreciation and a trend toward capitalizing rather than expensing new assets. While he did not empirically test this relationship, the correla-

TABLE 1

Regulatory Requirements to 1915

Regulation	Type of Company Applied To
Rate Regulation:	
1837 Virginia Law required railroads to submit annual report to state disclosing amount of stock, revenue, and profit/loss	Virginia Railroads
1870s Grange Laws allowed state rate setting, most based on return on assets	Railroads operating mostly in mid-west
Interstate Commerce Commission (ICC), 1887 established system for using accounting data to regulate rates	Railroads that transacted interstate commerce
Railroad Regulation Bill, 1905 developed an accounting rate of return to ensure fair return and fair rates	Wisconsin railroads
Hepburn Act, 1906 empowered the ICC to establish uniform chart of accounts	Railroad that transacted interstate commerce
Public Utility Law, 1907 allowed rates based on cost plus fair return	Wisconsin utilities
1909 ICC prescribed form of balance sheet for railroads	Railroads that transacted interstate commerce
Mann-Elkins Act, 1910 empowered ICC to regulate railroads based on accounting rate of return	Railroads that transacted interstate commerce
Various state laws created rate regulation of railroads and utilities by 1913	Railroads and utilities operating within state borders
New York Stock Exchange Listing Requirements:	
1866 created Committee on Stock List to create stock listing requirements	
1869 required issuers to provide annual financial report, to register shares in New York City, and use transfer agents	All listed companies
1895 recommended annual balance sheet and income statement	All listed companies
1900 required balance sheet and income statement	Newly listed companies only
1910 required interim reports, balance sheet audits, and disclosure of all material information	All listed companies
Moody's Rating Requirement:	
1909 required an income statement to receive a rating	All companies included

tion between a regulatory change and a change in accounting policies seems to have clearly existed. This change in accounting policies was such that it would tend to increase rates. This shows that rate regulation influenced accounting policy choice.

These early regulations did not solve the discontent over rates so further rate legislation was introduced. The Interstate Commerce Commission (ICC) was established in 1887. Henry Carter Adams, the ICC's first statistician, devised an accounting system that served as a basis for examining revenues, expenses, and earnings of railroads and utilities so that fair rates could be established [Trebing, 1984]. The significance of this regulation for this study is that it used data from the income statement to help establish rates.

Regulation grew with the Populist/Progressive Reform Party movement from 1877-1920 [Trebing, 1984]. Governor LaFollette of Wisconsin (a Progressive Party member) and John Commons of the institutional school of economics at the University of Wisconsin were instrumental in the development of economic regulation. The goal of the Progressive Party was to bring about a rational deployment of public resources based on 'reasonable value' and 'rate of return' [Covaleski et al, 1995]. Under LaFollette, Wisconsin enacted the Railroad Regulation Bill, 1905, which established the Railroad Commission. The Commission developed an 'accounting rate of return' to regulate railroads to ensure a 'fair' return and 'fair' rates. In 1907, Wisconsin enacted the Public Utility Law where utility rates were to be based on cost plus 'fair' return [Covaleski et al, 1995].

In 1907, Commons wrote *Report to the National Civic Federation*, which explored many fundamental regulatory issues. This report led to accounting rate of return based regulation laws in at least 29 states and the Federal government by 1913 [Trebing, 1984]. Federal legislation in the form of the Hepburn Act, 1906 empowered the ICC to establish a uniform chart of accounts for railroads. This would lead to more standardized reporting to aid in rate setting [Boockholdt, 1978]. Subsequently, the Mann-Elkins Act, 1910 empowered the ICC to effectively regulate railroads based on accounting rates of return [Covaleski et al, 1995]. Regulatory pressures continued through 1917 when Federal attentions turned to war issues [Boockholdt, 1978].

The railroad and utility regulation of the early decades of the 20th century was focused primarily on rate regulation. It required entities to produce an income statement and share this with regulators. These regulations did not require companies to provide this information to the general public; but with rates being based on costs, the information contained in the income statement could be inferred. Therefore, the utilities and railroads did not have a competitive reason to keep the income statement information secret. The 'British Secretive Model' of reporting was no longer useful within the regulatory environment faced by these companies [Michael, 1996].

Boockholdt [1978] implies that the early rate regulation influenced accounting policy choice. It is contended here that early 20th century regulation would have a similar effect on disclosure. Because these regulatory acts required charts of accounts (Hepburn Act, 1906) and formats for the balance sheet and income statement (Interstate Commerce Commission, 1909), standardized accounting by railroads resulted. These statements were then used by the companies to attract investors.

State laws by 1913 similarly regulated utilities. It is contended that the similarity in regulation between railroads and utilities would result in similar pressures on disclosure so that utilities would also report income statements.

Industrial corporations did not face any disclosure regulation other than that imposed by stock exchange listing requirements during the early 20th century [Sivakumar and Waymire, 1993]. As a result, these companies were still highly concerned with the competitive issues of disclosure and, therefore, would still operate under the 'British Secretive Model' of reporting, which limited disclosure. The lack of rate regulation and its influence on disclosures for industrial companies would result in industrial companies reporting income statements less frequently than railroads and utilities since railroads and utilities faced the rate regulation pressures to prepare and disclose income statements. Based on the existence of rate regulation for railroads and utilities and lack thereof for industrial companies, the following hypothesis states:

> H1: Rate-regulated companies were more likely to disclose an income statement than industrial companies.

Stock Market Listing Requirements: As the economy grew, companies had a greater need for venture capital [Corcell, 1989]. These funds needed to come from investors. Railroads were the first companies to rely on outside investors. After 1850, railroads in the U.S. needed investors to provide means to acquire major fixed assets to operate [Boockholdt, 1978]. The growth of the railroads at this time made them a reasonable investment for small investors. However, other more risky companies also needed capital to grow. Small investors were uncertain about these companies. While railroads sold at seven to ten times earnings, industrials sold at three times earnings. However by the 1880s, railroads had matured so the need for more capital had declined [Navin and Sears, 1955].

Capitalizing on this situation, professional financiers developed trusts [Bryer, 1993]. Commencing in 1882, these trusts allowed investors to rely on and have faith in the investment banker or firm promoting the trust [Bricker and Chandar, 1998]. Trusts represented both regulated and unregulated industries. Trading in trusts was significant (150,000 trust shares per week) and drew attention to industrials as investment opportunities. Many of these trust companies became corporations or holding companies in the 1890s. Also, during the 1890s, many mergers created large companies that imitated the trusts [Navin and Sears, 1955]. These corporations began trading their shares of stock, giving small investors the ability to acquire stocks in companies other than railroads [Bryer, 1993].

The growth of interest in owning stocks of individual companies created a need for easy exchange of shares. Organized exchanges existed earlier, but it was not until later in the 19th century that a market for industrial securities existed [Navin and Sears, 1955; Baskin, 1988]. The New York Stock Exchange (NYSE) established its first listing requirements in 1866. To be listed on the NYSE, a company had to have a transfer agent, register their stock in New York City, and provide an annual financial report [Normand and Wootton, 2001; Gross, 2002].

By 1902, large numbers of corporations (both industrials and regulated companies) were trading on organized exchanges leading to diverse ownership [Navin and Sears, 1955]. It was estimated that in 1899, there were 500,000 shareholders on the NYSE [Gross, 2002]. To provide for an active market, investors needed to be comfortable about making purchase decisions. When trusts and holding companies were common, investors relied on the investment banker, underwriter, or promoter to determine the investment quality of the trust or holding company [Bricker and Chandar, 1998]; but by the turn of the 20th century, investors were buying individual companies. To make these purchases, individuals needed more information about the individual companies or guidance from professionals through stock ratings. A prerequisite of a thriving, modern equity market was developed financial reporting to provide the necessary information for investors to make informed decisions [Baskin, 1988].

As the stock exchanges grew in importance as a tool to raise capital, more companies became willing to disclose greater information and adhere to more stringent listing requirements (regulations imposed by the stock exchange). In 1895, the NYSE recommended that all listed companies provide an annual report containing both a balance sheet and an income statement. Prior to that, only a balance sheet was required. In 1900, newly listed companies were obliged to issue an annual report containing a balance sheet and income statement, hold an annual meeting, and distribute proxy statements [Gross, 2002]. In 1910, additional listing requirements were introduced for providing interim reports, restricting the use of certain accounting policies, requiring balance sheet audits, and requiring the disclosure of material information [Sivakumar and Waymire, 1993]. Whereas NYSE listed companies were required to provide income statements and significant amounts of disclosure, unlisted companies were not under the same obligation. In fact, the NYSE traded unlisted companies. The only disclosure requirement for those companies was a balance sheet [Sivakumar and Waymire, 1993].

Increased information made it possible to analyze companies for investment purposes, but the average middle-class investor could not understand the disclosures that were being provided [Merino and Neimark, 1982]. This situation created the need for professionals in finance to help investors evaluate the various investment alternatives [Bryer, 1993].

In the 1890s, analyst services like Poor's and Moody's started to provide published information about companies [Sivakumar and Waymire, 1993]. John Moody provided analysis that compared the relative investment quality of various railroad securities in 1909. These reports included letter rating symbols for public securities—the first analyst ratings provided to the U.S. public [Moodys.com, 2001]. The ratings were for railroads only until 1913 when industrial and utility companies were added [Moodys.com, 2001]. To receive a rating, Moody required that the company provide an income statement [Moody, 1915].

A rating was important to attract small investors and was thus important to companies listed not only on the NYSE, but on any of the other smaller stock exchanges. The need to attract investors to acquire investment capital encouraged companies to seek a stock exchange listing. The listing requirements of these exchanges became a form of self regulation for listed companies. Because of the increased disclosure requirements of listing and the importance of analysts' ratings, companies seeking investment capital through stock markets would be more likely to disclose an income statement than unlisted companies. Therefore, the following hypothesis states:

> H2: Stock exchange listed companies were more likely to disclose an income statement than unlisted companies.

DATA AND METHODOLOGY

To examine the extent of income statement disclosure by industrial and rate-regulated companies in the early part of the 20th century, the *1915 Moody's Analyses of Investments* was chosen as the data source. *Moody's* was selected because it provides a broad range of public companies. The 1915 edition was chosen because it was the earliest edition to include a substantial representation of industrial companies that comprised the non-rate regulated sample.

The *1915 Moody's* included 5,334 companies. A random sample of 533 companies was drawn from the manual. From this sample, companies were eliminated if they did not have public ownership or were incorporated outside the United States. A large number of the companies (283 of the sample) were wholly owned subsidiaries of another company. Five of the sample companies were foreign. This left a sample of 68 railroads, 85 utilities, and 92 industrial companies. Of these, 68 were listed on an organized exchange and 177 were unlisted.

The pages covering each company were examined to determine whether an income statement and balance sheet were provided. To examine the amount of detail provided in the financial statements, the size of the statements was measured by placing an overhead transparency on the page that had been sectioned off into 20 x 25 blocks. The number of blocks that each statement occupied was recorded. Using size as a proxy for extent of disclosure is a common content analysis technique similar to that used by Gray et al [1995]. The disclosure of revenue and whether the stock traded on an organized exchange was also noted.

Chi-square tests were performed to determine if the frequency of disclosing an income statement or revenue within the income statement was greater for railroads and utilities compared to industrial companies in order to test the influence of rate regulation on financial reporting. Chi-square tests were also used to determine if the frequency of issuing an income statement differed between listed and unlisted companies. The tests were also performed on the balance sheet to determine if balance sheet disclosure was influenced by rate regulation or stock market listing.

Tests were also performed to determine if rate regulation and listing requirements influenced the amount of detail in financial statement disclosure as measured by the size of the financial statements. Because of the large number of companies not reporting an income statement, the size data was not normally distributed. Therefore, the Mann-Whitney test was used to compare the size of the income statement among railroad, utility and industrial companies and listed and unlisted companies. The Mann-Whitney tests were also conducted on balance sheet size to examine the influence of rate regulation and stock market listing requirements on balance sheet reporting as well.

ANALYSIS OF RESULTS

Table 2 provides descriptive statistics for the sample. This table shows that most companies reported some statements. Only 13.9% of companies failed to provide Moody with any statements. Just over half (54.7%) of the companies disclosed both an income statement and a balance sheet. Approximately 80% of the sample reported an income statement. This finding is inconsistent with the conclusion in the existing literature that the income statement did not become a consistently reported item in the U.S. until the 1920s [Skinner, 1987; Buckmaster and Jones, 1997]. In fact, for the sample as a whole, the income statement is much more commonly reported than the balance sheet. The fact that only 60% of the sample reported a balance sheet is inconsistent with the conclusion in the literature that almost all U.S. firms published a balance sheet [Brief, 1987]. Railroads were the least likely to report a balance sheet, and utilities were the most likely to report an income statement.

Rate Regulation of Railroads and Utilities: Revenue was reported in most railroad and utility income statements. This is probably an artifact of the Hepburn Act, 1906 which established a uniform chart of accounts for railroads. The income statements for regulated railroad and utility companies were very similar. They started with revenue and included operating expenses. Some listed other expense items such as fixed charges, depreciation, interest, or taxes. Almost all companies disclosed 'net income'. The account title given to this number varied among the companies. (Surplus over charges, balance, surplus, net income, net

TABLE 2

Descriptive Statistics for Sample

	Industrials	Railroads	Utilities	Entire Sample
No statement	12.0%	17.6%	12.9%	13.9%
Income statement	73.9%	82.4%	85.9%	80.4%
Balance sheet	81.5%	36.8%	56.5%	60.4%
Both statements	67.4%	36.8%	55.4%	54.7%
Revenue	32.6%	79.4%	84.7%	63.7%
Mean income statement area	60.68	69.38	78.79	69.38
Standard deviation income statement area	48.89	47.22	59.79	52.86
Mean balance sheet area	92.98	47.76	71.28	72.90
Standard deviation balance sheet area	58.65	66.94	75.77	69.44
Mean total area	408.00	478.10	530.02	469.80
Standard deviation total area	204.50	390.64	388.90	335.14
Number of companies	92	68	85	245

earnings/profit, and total income were among the titles used.) These statements were clearly recognizable as single-step income statements. The industrial companies were less likely to report income statements. Less than half of the industrials which reported income reported revenue. Most industrial income statements did not follow a consistent format across companies. The inclusion of payments to bond sinking funds was often reported as an expense. Thus, industrial income statements, when provided, were not as well organized or as informative as the income statements of regulated companies.

The amount of statement coverage varied significantly among companies within each industry grouping as indicated by the standard deviation of the areas reported in Table 2. Utilities provided the most detailed income statement disclosures and the greatest overall Moody's coverage. Industrials had the most detailed balance sheets. Consistency in the form and content of railroad and utility income statements was most striking. This was certainly a by-product of regulation which required use of a common chart of accounts (Hepburn Act, 1906) and the need for regulators to use consistent numbers in rate setting. The chart of accounts helped standardize income reporting.

To test H1, Chi-square tests were performed to determine if the frequency of disclosing income significantly varied across industry groups. When industrials, railroads, and utilities were considered together, the Chi-square was not significant (p-value = 0.12). The industries were then compared individually. The Chi-square comparing the frequency of income statements for railroads and industrials was not significant (p-value = 0.206). Thus, railroads were not more likely than industrials to report an income statement. Utilities were shown to be significantly more likely to report an income statement than industrials (p-value = 0.048). Utilities and railroads did not report income statements at a different frequency (p-value = 0.551). Thus, H1 was supported with respect to utilities only. Utilities were more likely to report net income than industrials, but railroads were not. As Boockholdt [1978] contends in relation to earlier railroad regulation and accounting policy choice, these results show that later rate regulation of utilities provided a catalyst to change reporting and issue an income statement when a large number of unregulated companies chose not to report income. The fact that railroads were not reporting income more frequently than unregulated companies is surprising. The railroads faced similar rate regulation pressure as the utilities. The existing literature also contends that railroads were the leaders in financial reporting [Boockholdt, 1978], but these results indicate that utilities were more likely to report income.

Table 3 reports the results of the Mann-Whitney tests on the amount of detail in income statements. The results are the same as for the analysis of frequency; utilities provided significantly more income statement disclosures than industrial companies. Railroads did not provide more disclosure than either industrials or utilities. These results show that the income statements provided by utilities were not only more frequent, but also more detailed. Railroads did not have more income statement disclosure than industrials. One possible explanation for the finding that railroads were not reporting income more frequently and with more detail is the period studied. Many of the railroads in the sample were inter-urban transit railways. These lines were already facing pressures from the automobile. As the prospects of these railways began to decline, the tendency may have been to reduce disclosure.

The Chi-square and Mann-Whitney tests were conducted to determine if balance sheet frequency or size varied significantly among the industries examined and thereby to consider the entire reporting picture. Considering all three industries together, a significant difference was found for frequency of reporting balance sheets (p-value = 0.000). Industrials were significantly more likely to report a balance sheet and railroads were least

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TABLE 3

Rate Regulation: Total Area of Income Statement (Mann-Whitney Test)

	Industrial vs. Railroads	Industrial vs. Utility	Railroad vs. Utility
Industrial median	70	70	
Railroad median	72		72
Utility median		76	76
p-value	.12	.01**	.20

P-values are one-sided for industrial vs. railroad and industrial vs. utility and two-sided for railroad vs. utility.
** 5% significance
*** 1% significance

likely. Comparing railroads and industrials showed a significant difference (p-value = 0.000) with industrials reporting balance sheets significantly more frequently. Industrials were also more likely than utilities to disclose a balance sheet (p-value = 0.000). Utilities were more likely than railroads to disclose a balance sheet (p-value = 0.015). Thus, industrials were significantly more likely than railroads or utilities to disclose a balance sheet and railroads were less likely than industrials or utilities to disclose a balance sheet. These results on the lack of balance sheet disclosure are interesting when compared to the findings reported in the extant literature. This literature discusses how common balance sheets were [Brief, 1987] and how they were the focus of reporting in the early 20th century [Morrison, 1935; Skinnner, 1987].

The findings reported in this study show that a significant number of companies that provided income statements did not provide balance sheets and that this practice was particularly pronounced in the railroad sector, where regulation may have directed focus on company evaluation almost entirely on the income statement. This result again stresses the important impact that regulation had on accounting during this period. At this time, railroads were also considered to be the leading industry for financial reporting [Boockholdt, 1978]. The results here seem to indicate that utilities rather than railroads were the leaders as utilities more often provided a complete set of financial statements.

Table 4 examines the amount of detail in the balance sheet using Mann-Whitney tests. These results show that the balance sheets of industrial firms were larger than those of both railroad and utility firms. The difference in balance sheet size between railroad and utility companies was insignificant. These results are generally consistent with those for the frequency of reporting for the balance sheet.

TABLE 4

Rate Regulation: Total Area of Balance Sheet (Mann-Whitney Test)

	Industrial vs. Railroads	Industrial vs. Utility	Railroad vs. Utility
Industrial median	108	108	
Railroad median	0		0
Utility median		76	76
p-value	0.00***	0.03**	0.07

P-values are two-sided
** 5% significance
*** 1% significance

Chi-square tests were used to examine the reporting of revenue. Considering all types of companies together, significant differences were found for reporting revenue (p-value = 0.000). Industrials were less likely than other firms to report revenue. Comparing railroads and industrials showed that railroads were significantly more likely to report revenue than industrials (p-value = 0.000). This result also holds for utilities relative to industrials (p-value = 0.000). Utilities and railroads were equally likely to report revenues (p-value = 0.393). Regulated companies were more likely than industrials to report revenue.

Given the lower frequency of industrials to provide income statements, this result is not surprising. However, the significant differences still hold when a subsample of only those companies reporting an income statement was considered. Industrials were still significantly less likely than either railroads or utilities to report revenue (p-value = 0.000 for both).

Overall, these results indicate that rate-regulated companies, especially utilities, were providing more complete information on company performance than industrial companies in 1915. Rate regulation provided incentives to publish income statements and include more detail within the income statements that were published.

Stock Market Listing Requirements: Among the sample of companies selected, trading on an unlisted basis (72.2%) was more common than being listed (27.8%). A company was considered to be listed if it traded on any organized exchange. While it is not known what listing requirements existed for all local exchanges, the scrutiny of the listing process is assumed to encourage more complete reporting for listed companies regardless of the exchange listed on. If exchanges other than the NYSE did not require income statements, then the inclusion of these other exchanges as listed securities will only bias against the hypothesis being found significant. Of the companies in the sample that were unlisted, 137 disclosed an income statement and 40 did not. For the listed companies in the sample, 60 disclosed income statements and eight did not. To determine if income statement disclosure was statistically more common for listed companies (H2), a Chi-square test was performed. The results indicate that listed companies were more likely to disclose an income statement (p-value = 0.028). Thus, the stock exchange listing requirements were acting as a regulation to encourage the listed companies to disclose an income statement.

The previous section indicated that rate regulation was an adequate inducement for utility companies to report income statements. To determine if stock market listing requirements encourage all types of companies to disclose income statements, the Chi-square test was performed on the industrial, railroad, and utility subsamples separately. Industrials that were listed were significantly more likely to report an income statement than unlisted industrials (p-value = 0.002). However, listing status did not influence whether railroads (p-value = 0.342) or utilities (p-value 0.378) reported an income statement. These results indicate that the stock market listing requirement only acted as a regulatory influence on income statement reporting for those companies that did not already report income because of rate regulation. However, for those companies not required by law to prepare an income statement, the stock market listing requirements did act as an adequate incentive to report income. Thus, those listing requirements regulated the disclosures of companies seeking to be listed, supporting H2.

Table 5 shows the results of the Mann-Whitney test on the detail of the income statement for listed and unlisted companies. The results are similar to those for frequency in that listed companies reported a more detailed income statement than unlisted companies. This again indicates the significant influence that stock market listing requirements had on company disclosure. The NYSE had a listing requirement about disclosing all material information, which would be expected to result in listed companies reporting more information. This was supported by the results. Also, to get small investors to invest in their shares, companies needed to provide information for individuals to make investments decisions.

TABLE 5

Stock Market Listing Requirements: Total Area of Income Statement (Mann-Whitney Test)

	Listed vs Unlisted
Listed median	76
Unlisted median	72
p-value	0.00***

P-value is one-sided.
** 5% significance
*** 1% significance

The frequency of reporting balance sheets and their size was also examined for listed and unlisted companies. For the unlisted companies, 89 reported a balance sheet and 88 did not. Only nine listed companies did not report a balance sheet and 59 listed companies did report a balance sheet. Listed companies were shown to be significantly more likely to report a balance sheet (p-value = 0.000) for the Chi-square test. Thus, listing requirements that required a balance sheet did significantly influence the disclosure of the statement. To examine whether this effect occurred for industrials, railroads, and utilities, the chi-square test was repeated for each industry separately. The results indicate that for all industries listed companies were more likely to report a balance sheet (p-value = 0.004 for industrials; p-value = 0.009 for railroads; p-value = 0.032 for utilities). This result is very interesting when considered in tandem with the results from rate regulation. Stock market listing requirements influenced all types of companies (rate regulated or not) to report a balance sheet, but only influenced non-rate regulated companies to report an income statement. Rate regulation was focused on the income statement. Thus, the rate regulation did not encourage regulated companies to provide a balance sheet. However, for those rate-regulated companies that chose to be listed on a stock exchange, the stock exchange listing requirements acted as a regulation to disclose a balance sheet as was required for listing status.

The size difference for the balance sheet across listed and unlisted companies was tested with a Mann-Whitney test. The results are reported in Table 6. Listed companies reported significantly more detailed balance sheets than unlisted companies. Thus, the stock market listing requirements that stipulate the disclosure of a balance sheet not only encouraged companies to disclose a balance sheet, they also encouraged a more detailed balance sheet. This increased level of detail may have resulted from the listing requirements concerning the disclosure of all material information that unlisted companies did not have to satisfy.[1]

TABLE 6

Stock Market Listing Requirements: Total Area of Balance Sheet (Mann-Whitney Test)

	Listed vs Unlisted
Listed median	114
Unlisted median	18
p-value	0.00***

P-value is two-sided.
** 5% significance
*** 1% significance

Taken together, the results reported here indicate that various forms of regulation motivated the management of companies to disclose income statements and, to a lesser extent, balance sheets, in the early part of the 20th century. Regulatory effects were an important force in encouraging companies to provide adequate disclosure. The results indicate that these

[1] The tests reported in this section were repeated using only the 36 NYSE listed companies in the sample. The results were generally the same for the tests that could be performed. The only exception occurred with the test for the importance of listing for industrials to report a balance sheet. NYSE listed industrial companies were not more likely than other industrial companies to report a balance sheet, while the body of the paper indicates that listing on any exchange did create a significant difference with listed companies reporting a balance sheet more frequently. The paper reports all listed companies because of the increased power of the test with the larger sample size and the ability to run all tests. There are only four NYSE listed railroads all of which report income statements and balance sheets. This resulted in an inability to run tests separately for railroads when the NYSE only sample is used.

regulatory measures helped bring about more complete and consistent financial reporting.

A limitation of this study is that the results cannot be generalized to other periods where different pressures existed on reporting. Neither can the results be generalized to companies operating in other countries where regulatory pressures were different. For instance, currently the SEC regulations would dominate those of rate regulation. Likewise, Boockholdt [1978] notes that rate regulation was not aggressively pursued during World War I. Thus, the effect of rate regulation on statement disclosure may not be detected during that period because of poor enforcement. The paper also fails to consider other forces that may have acted as regulatory influences.

SUMMARY AND CONCLUSIONS

This study has examined the effect of rate regulation and stock market listing requirements on the frequency and size of income statement and balance sheet disclosures by companies in the *1915 Moody's Analyses of Investments*. The results strongly support the hypotheses that both types of regulation influenced reporting. Thus, regulatory pressures influenced company reporting practices and helped to move company reporting to a more complete and consistent model.

Rate regulation laws required regulated industries to provide income statements to regulators. This study hypothesized that rate regulated companies would be more likely to publicly report income statements because they were already provided for the regulators. The results, with respect to rate regulation, showed that utilities were more likely than industrials to report income and that the income statement disclosures were larger for utilities than those for industrials. The analysis also showed that both railroads and utilities were more likely to disclose revenues than industrial companies. Industrials, however, were more likely to disclose a balance sheet and have more comprehensive balance sheet disclosure.

Stock exchanges impose listing requirements on companies choosing to list on the exchange. These regulations are essentially voluntarily entered into rather than imposed by law; but, nonetheless, these regulations are hypothesized to influence statement disclosures. The NYSE required the reporting of both an income statement and balance sheet by 1915. Unlisted companies did not face this requirement. Therefore, stock market listing would increase the likelihood of reporting both income statements and balance sheets. The NYSE also required disclosure of all material items. This requirement would tend to increase the size of financial statements. The results of this study supported these hypotheses. Listed companies were more likely to report income statements, although this effect was only significant for industrial companies when examined by industry. Also, the likelihood of disclosing a balance sheet increased when a company traded on an exchange. The size of both statements also increased among listed companies relative to unlisted companies.

These results provide empirical support to the literature that discusses the leading role of regulated industries in reporting income [Boockholdt, 1978; Bryer, 1993]. The most surprising result was the infrequency of U.S. firms to disclose a balance sheet in 1915. This finding is inconsistent with the assertion in the literature that almost all firms published a balance sheet [Brief, 1987] and that it was the only necessary statement [Gilman, 1939; Skinner, 1987; Kendig, 1993]. The results reported here indicate that regulation was a significant influence on the reporting of income by companies in the early 20th century. Greater detail in the income statement was also a by-product of regulation. The format of rate-regulated company income statements was generally consistent across firms, using a single-step presentation. In contrast, industrial firm income statements lacked a consistent format and often omitted important disclosures (such as revenue). Thus, rate regulation also had an impact on the format and content of income statement disclosures.

Regulation was a significant force in the evolution of financial statement disclosure at the turn of the 20th century. Utility companies seemed to be the leaders in financial disclosure. They were the most likely to provide an income statement. This income statement almost always provided details about revenue and operating expenses. The majority of utilities also reported a balance sheet. The balance sheets were not standardized. The biggest contribution of early 20th century rate regulation on accounting was in encouraging a consistently formatted, detailed income statement that was subsequently made available for investors to use in financial statement analysis.

The stock exchange listing requirements were shown to only be associated with increased income statement reporting for industrials, which were not rate-regulated. Thus, the stock exchange listing requirements played a major role in encouraging these companies to report income. The stock market listing requirements also resulted in more frequent balance sheet disclosures for all types of companies. This was the only regulation that required balance sheets. Therefore, the stock exchange listing requirements were a key regulatory influence in encouraging complete financial statement disclosure.

The results of this study also call into question the conclusion by some previous authors that the income statement did not become a consistent, prominent, and useful disclosure until after 1920 [Skinner, 1987; Buckmaster and Jones, 1997]. The income statement was more commonly disclosed than the balance sheet by the entire sample considered in the current study. Analysts used income statement information to provide advice to investors [Moody, 1915]. In fact, since ratings would not be provided without an income statement, it was viewed by Moody as a necessary statement. Regulation played an important role in bringing income statement information to the status of usefulness before 1920.

The impact of regulation on the format of the income statement is also very evident. Rate-regulated company statements followed a consistent and informative format, disclosing revenues and operating expenses. Without this regulatory pressure, industrial statements lacked consistency as well as detail. Thus, regulation played a very significant role in the growing prominence and disclosure of income by American companies in the early 20th century.

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AN ACCOUNTING HISTORY OF CAPITAL MAINTENANCE: LEGAL PRECEDENTS FOR MANAGERIAL AUTONOMY IN THE UNITED KINGDOM

Abstract: The effectiveness of the capital maintenance concept that became enshrined in British companies legislation during the 19th century was almost immediately undermined when companies were permitted to pay dividends from 'circulating' capital surpluses, even though overall there were losses of total invested capital. It is generally accepted that the British courts were conscious not to limit management's capacity to innovate and operate their businesses in good faith, and to maximize the capacity of their entities to distribute dividends to shareholders now and in the future. Nevertheless, it is unclear why at the time some accounting methods were accepted as being satisfactory in certain situations but not in others. It is argued here that the British judges adhered to a number of complementary guiding principles when assessing the validity of particular accounting procedures. Central to these principles is the notion that individual firms have different planning horizons and associated particulars of risk assessment. These cannot be captured by the general use of surplus methods of profit determination using current market prices. Consequently, the courts resisted imposing uniform accounting and reporting requirements because traditionally they respected separation of ownership and control.

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INTRODUCTION

> " . . . the maintenance of corpus has been stretched beyond its natural usefulness" [Littleton, 1953, p. 89].

In Britain, the courts provided some of the earliest public arenas for the examination of accounting practices. Accounting practices were invariably ancillary to the main issues of cases, these being disagreements over matters of disclosure and financial measurement. Disputes classified as disclosure-based generally concerned the rights of members and directors of companies to inspect books of account. While these types of cases outnumbered measurement-related disputes brought before the courts, many of the key concerns were subsequently resolved through legislative intervention [Rahman, 1992, pp. 182-184, 191]. In contrast, disputes concerned with measurement issues, while relatively few, centered on the recurring debate over the amount of profits available for the purposes of dividend distribution [Reid, 1988, p. 2; Mills, 1993, p. 776]. To resolve such disputes, judges selectively turned to the notion of capital maintenance for guidance.

The doctrine of capital maintenance, the precept whereby the payment of dividends cannot be made out of capital, was inherited ostensibly from 18th century British charter corporations [Mills, 1993, p. 775]. In order to protect creditors a general consensus emerged. The capital of a company should be maintained so as to provide a fund that creditors could conceivably look to for the payment of their claims. This consensus ultimately became enshrined in law [Gibson, 1971, pp. 26-29; Benson, 1981, p. 22; Morris, 1986, p. 76].

Despite successive legislative requirements precluding the payment of dividends out of anything other than 'profits', it was not until the Companies Act, 1980 that a definition of distributable profits was incorporated into legislation.[1] This absence appears to have significantly constrained the British judiciary. While matters relating to the calculation and payment of dividends clearly fell within the courts' jurisdiction [Ford, 1993, p. 100], the lack of a substantive definition for the term 'profits' limited the judiciary's ability to make any significant determina-

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[1] Sections 39 and 40. Additional requirements in relation to investment companies are laid out in section 41, and in relation to insurance companies in section 42. See also Companies Act, 1985 (U.K.), section 263ff as amended in 1989.

tions on the issue [Dunn, 1975, pp. 16-17; Morley, 1979, p. 36; Corcoran, 1993, p. 100].

When applying legislation the courts are generally assumed to interpret public interest in terms of accepted notions of natural justice, statutory interpretation and precedent [Peirson and Ramsay, 1983, p. 292; Mills, 1993, p. 772]. Consequently, common law emphasizes justice between parties in a process that results from, and also tends to maintain, a society characterized by voluntary behavior and customs [Johnson, 1987, p. 67]. It would seem reasonable to assume, therefore, that the courts would take a negative view of companies contradicting the capital maintenance concept. However, in February 1889, Lindley, L.J. in the English Court of Appeal permitted the defendant in the case of *Lee v. Neuchatel Asphalte Company* (1889),[2] a quarrying company, to omit amortization for depletion of its mining lease when calculating profits available for dividend distribution [Morris, 1986, p. 71]. In turn, the *Lee* case provided the precedent for a succession of court cases that effectively marked the end of the capital maintenance concept as a means of directing profit and loss for dividend determination [Morris, 1984, p. 59].

French [1977] argues that a common aim amongst Lindley and the other reforming judges was to ensure effective creditor protection while at the same time providing significant freedoms for directors to allocate scarce resources to their best uses. The purpose of this paper is to demonstrate this emphasis. With reference to legal precedents established during the 19th century, our intention is to explain the general unwillingness of British courts at the time to mandate any particular accounting valuation policy which could inhibit the flexibility of management to grow and prosper benefits to the shareholders collectively in the longer term [Littleton, 1953, Ch. 1 & 5].

While French's work provides a useful framework for understanding the court's views on matters of dividend distribution, it does not provide a comprehensive explanation as to why, at the time of the *Lee* case, some accounting methods were accepted by the courts as being satisfactory in certain situations but not in others. Moreover, there appears to be no general consensus in the literature as to the significance or role of capital maintenance in British judicial reasoning during the 19th century. This would apply to accounting methods for the purposes of dividend determination, either before or after the *Lee* case [Reid, 1987a; 1987b].

[2] 41. Ch. D. 1.

It will be argued here that in both pre- and post-1889 periods, in addition to French's [1977] principle of 'freedom for action', the courts were also influenced by the authority for any proposed distribution and by the need for transparency of profit calculations. These had a variety of affects in terms of fairness and/or value for money to participants. Furthermore, unifying these two explanations into a common theme amounts to recognition of the *sui generis* nature of court decisions under precedent and the specific natures of the situations being encountered. Taken together, these guiding principles constituted a logical framework for judicial decision-making which ultimately conspired against the courts adopting the surplus approach of profit measurement under economic market valuation. Instead, they favored the profit and loss or double entry approach for profit determination and distributive purposes.

The remainder of this paper is divided into seven sections. The first section provides a brief description of the profit and dividend requirements contained in 19th century British companies legislation. The second section provides a summary of the main approaches available for determining capital maintenance. The third section reviews the literature regarding capital maintenance and the role of the *Lee* case in defining capital maintenance for judicial purposes. The fourth section details the main social, economic and institutional influences over British legislators during the 19th century. The fifth section provides a framework for understanding British judicial reasoning during the 19th century with regard to justifying accounting methods for the purposes of dividend determination. The sixth section provides a review of British court cases and judicial reasoning, both before and after the *Lee* case, within the context of the framework outlined in section five. The seventh section contains some concluding remarks about the links between present developments in cost and management accounting and the financial reporting function for organizations as a whole, and raises doubts about the use of microeconomic measures outside of perfect markets.

BRITISH COMPANIES LEGISLATION DURING THE 19TH CENTURY

Early British examples of the legislative rule relating company profits to dividends can be found in the Joint Stock Companies Registration and Regulation Act, 1844 and the Companies Clauses Consolidation Act, 1845. While the 1844 Act provided that registered companies could declare dividends out of profits, the 1845 Act was more specifically formulated with a view of statutory companies' capital as the minimum value of the net assets which must be raised initially and then, so far as possible, retained in the business [Gower, 1979, p. 98]. Accordingly, the 1845 Act provided that the company shall not make any dividend whereby its capital stock will be in any degree reduced [clause 121].

Both the 1844 and 1845 Acts treated dividend policy as an aspect of capital maintenance generally, principally because the interests of shareholders and creditors were regarded as being in competition. Assets distributed to one group are not available for distribution to the other. Given that the power to determine dividends is delegated to directors by shareholders, then creditors were often in a relatively disadvantaged position [Ford, 1993, p. 92].

Following Parliamentary acceptance in 1855 of the principle of limited liability for joint stock companies (Limited Liability Act, 1855), British company law was consolidated in the Joint Stock Companies Act, 1856. Following almost 20 years of reform, the 1856 Act integrated the Joint Stock Companies Registration and Regulation Act, 1844 and the Limited Liability Act, 1855, as well as introducing other changes. Most evidently, the provisions relating to profits and dividends contained in the 1844 Act were not replicated in the 1856 Act itself but were inserted in the model Articles of Association [Ford et al., 1999, pp. 38-41]. While the Articles specified that dividends should only be paid out of profits and that a model 'full and fair' balance sheet should be drawn up so as to give a true and correct view of companies' financial affairs [Hein, 1978, pp. 171-172], the 1856 Act provided no guidance regarding the underlying accounting principles to be applied [Bryer, 1998, p. 57; Maltby, 1998, p. 11]. Moreover, being relegated to the model Articles meant that the disclosure requirements were optional.

Several consolidating acts followed the introduction of the 1856 Act, culminating in the Companies Act, 1862. Like the 1856 Act, the 1862 Act contained no compulsory accounting or auditing provisions dealing directly with the payment of dividends. As with the 1856 Act, all such provisions were contained in the model Articles of Association. For instance, Article 73 (Table A) provided that no dividend should be paid except out of the profits arising from the business of the company. Table A also suggested that before recommending any dividend, the directors could, but were not compelled to, set aside out of profits for the company a reserve fund for repairing or maintaining the works connected with the business of the company.

Companies legislation introduced in Britain during the 19th century was customarily drafted with the purpose of protecting creditors by allowing a proportion of the nominal value of the share capital either to remain uncalled or to be retained within the company [Hadden, 1972, p. 70]. However, this purpose was eventually undermined when companies issued capital fully paid. Furthermore, as there were no legal requirements that the liabilities secured by companies were to bear any reasonable relationship to the company's assets, or that the original capital should be paid to the company in cash, a company could continue to trade despite having lost a substantial proportion of its capital courtesy of legitimate trading losses.[3]

ALTERNATIVE DEFINITIONS OF CAPITAL MAINTENANCE

Two broad approaches have been identified by the courts for determining profits for dividend determination. One of these models can be described as the 'surplus' approach, whereby the profit and loss statement plays a secondary role to the balance sheet by only verifying the accuracy of the underlying calculations. Profit is determined as the difference in net asset valuations adopted at the beginning and the end of the financial period [Kehl, 1976]. For instance, in *Binney v Ince Hall Coal and Cannel Company* (1866),[4] Kindersley, L.J. suggested that in determining net profits:

> The first step would be to make good the capital by taking stock and putting a value upon all the assets of the company, of whatever nature, and deducting therefrom all the liabilities (including amongst those liabilities the amount of contributed capital), and the surplus, if any, then remaining of the gross receipts would be net profit.[5]

Similarly, Fletcher Moulton, J. remarked in *re Spanish Prospecting Co Ltd* (1911)[6] that:

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[3] Section 13 of the Companies Act, 1855 provided that companies were to be wound up and dissolved when three quarters of their capital had been lost. However, this provision was not repeated in subsequent legislation [French, 1977, p. 315].

[4] 35 L.J. Ch. 363.

[5] See also *City of Glasgow Bank v Mackinnon* (1882) 9. Court Sess. Cases, 4th Series, 535 (Court of Session, Scotland).

[6] 1. Ch. 92; (1908-1910) All E.R. Rep. 573.

> 'Profits' implies a comparison between the state of a business at two specific dates usually separated by an interval of a year. The fundamental meaning is the amount of gain made by the business during the year.

When viewed as an accretion to the original investment, the existence of profits under the surplus approach implies that the removal of the surplus would leave a balance of assets equal in value to the original amount of the investment. Accordingly, profit determination under a surplus approach requires entities to incorporate changes in the value of all of their assets, including non-current and fixed assets, in the computation of profit [Kehl, 1976, pp. 3-13]. This approach also implies, by necessity, specifying the concepts of capital and capital to maintenance be adopted [Jones and Aiken, 1994, p. 201]. Therefore, profits under a surplus approach suggest that capital has been maintained for the owner under the proprietary theory of economics, which implies general application of market buying or selling prices current at period's end [Revsine, 1981].

The alternative to the surplus approach concentrates upon the profit and loss account as the primary evidence of the availability of profit. Described as the 'profit and loss account method', profit has been determined by the courts as the excess of total revenues received within a financial period, over that proportion of each production input's purchase price allocated in proportion to the contribution it makes to each period's revenues. In addition, a comparison might also be made of the opening and closing values of the inventory and other assets intended to be consumed or turned over within the business cycle. Any difference is then added or deducted from the difference between revenue receipts and expenditures [Ford and Austin, 1995, p. 663].

The profit and loss method places most importance on those financial transactions in which the specific reporting entity is directly involved, and little or no emphasis on the current market values of assets, particularly non-current or fixed assets. Nevertheless, the market prices of non-current or fixed assets may become relevant in certain circumstances, but only as proximate justifications of certain 'unexpired costs' by auditors. The profit and loss method, therefore, is driven primarily by the conventions of revenue recognition for a legal entity and by the matching principle of relevant costing under double entry [Littleton, 1953, Ch. 2 & 5]. Relevance is in relation to management's business strategies and the specific nature of the expenditures involved [p. 55].

The existence of profits under the profit and loss account method may or may not mean that capital has been maintained overall in terms of market prices in a proprietary sense of economic ownership. It ultimately depends upon whether or not market events have occurred, and the ways in which they have interacted during the financial period as a timing issue congruent with managerial strategies. For example, the unrealized loss on the value of a current asset could be completely offset by an unrealized gain on a non-current asset. Nevertheless, under traditional accounting procedures and for dividend determination purposes, any unrealized gain is unlikely to be accounted for whereas any unrealized loss will almost certainly be incorporated in the final profit figure. Historically, this is in accordance with the 'lower of cost or market' principle. However, it should be noted that professional accounting standards have increasingly permitted management to use the option of adopting management values, historic costs or current market prices for financial accounting and disclosure purposes. Under the separation of ownership and control it is management's perception of the unexpired cost of assets yet to be allocated, not the generality of market prices, which is relevant.

By incorporating changes in the values of all assets and limiting managements' discretion over the timing of revenue and expense recognition, the surplus approach could possibly provide a more theoretically rigorous measure of profit that is relatively less susceptible to managerial opportunism or conservatism [Chambers, 1966; Baxt, 1970]. It might also provide a means of measuring profit that is most closely aligned with the economic view under this concept of accountability and control [Edwards and Bell, 1961; Sterling, 1971]. However, this presupposes that assumptions and deductive logic can replace compliance with social codes for general acceptance of managements' responsibilities for strategic planning and operations. Accordingly, both the British judiciary and accounting profession rejected the surplus method in favor of the profit and loss account method for a variety of legal, ethical and commercial reasons [Weiner, 1928, pp. 1046-1050; Littleton, 1934, pp. 140-148; Yamey, 1962; Kehl, 1976; Jones and Aiken, 1994, p. 202]. Nevertheless, differences of opinion still exist amongst academics as to whether the *Lee* case represented a 'watershed' in terms of legal precedent with respect to the doctrine of capital maintenance. The matter can be somewhat clarified by Beaver and Demski's [1979] view that current market prices can be generally applied in perfect markets.

LITERATURE SURVEY

Published work on court cases dealing with disputes over the payment of dividends and capital maintenance tends to view the *Lee* case as a turning point in British judicial precedent. Interestingly though, there appears to be no general consensus as to the status of capital maintenance prior to 1889. Some authors have suggested that prior to this date the British courts refrained from imposing a capital maintenance view with regard to accounting matters, except to enforce private contracts or to redress fraud.[7] Therefore, the *Lee* decision was consistent with the judicial precedent laid down in previous cases. An alternative view is that prior to 1889 the courts attempted to protect creditors by advocating a 'capital maintenance view' and refused to permit the payment of dividends out of capital [Reid, 1987a, p. 10]. Consequently, the *Lee* decision marked a change in the law.[8]

Based on the findings from pre-*Lee* cases, Reid [1987a] claims that it was not uncommon for British judges to reject contractually-based accounting and dividend policies if they contravened the capital maintenance doctrine or other equitable considerations. Nevertheless, no consistent conceptual declarations of asset valuation and income determination were evident [Reid, 1987b, p. 247]. Furthermore, prior to 1889 the provision for depreciation received support although "not all decisions were in accord" and "no consistent concept of profit or depreciation emerged" [Reid, 1988, pp. 2-3].

Bryer [1998] suggests that prior to the *Lee* decision judicial views on asset valuation and income determination were consistent with Dicksee's [1903] concept of 'capital-revenue accounting' (CRA). However, following the *Lee* case, general agreement on CRA evaporated. Consequently, Bryer [1998, p. 57] argues that the *Lee* case signaled the end of the general acceptance of CRA. Bryer discusses Napier's [1997] suggestion that the *Lee* decision was 'anomalous' in the sense that it was consistent with the feudal law of settlement trusts, suggesting lingering feudal attitudes amongst the judiciary. However, he rejects Napier's thesis on the grounds that it is inconsistent with his own views

[7] For instance, Dickinson [1904, p. 71], Hatfield [1916, p. 203], Weiner [1928, p. 1051], Edwards [1939, p. 179], May [1943, p. 52] and Johnston [1961, p. 545].

[8] For instance, Palmer [1898, p. 147], Strachan [1910, p. 233], Robson [1927, p. 266], Briggs [1934, p. 228], Cooke [1937, p. 440], Yamey [1941, p. 274], Gower [1954, p. 112], Edey and Panitpakdi [1956, p. 378] and French [1977, p. 307].

on the general socialization of capital. Furthermore, while the accounting allowed in *Lee* was feudal in form, it was not feudal in substance [Bryer, 1994], nor was the accounting in subsequent cases such as *Verner v General and Commercial Investment Trust* (1894)[9] [Cooper, 1894]. Nevertheless, Bryer's view that managers in the 19th century were functionaries of investor or establishment interests may require some modification given the nature of the legal and accounting decisions and practices emphasized here.

A.C. Littleton, arguably the pre-eminent American accounting scholar and historian of the first half of the 20th century, discussed the extent of general agreement with decisions by the courts [Littleton, 1933, p. 221]. This is interesting as Littleton had a marked affinity with and knowledge of the 'historical evolution' [1953, pp. 84-89] of accounting in both the UK and the USA during the previous one hundred years.

The central premise of Littleton's [1953] views on accounting was the overriding need for flexibility in measuring periodic performance of the *whole* organization, especially when long-term planning was involved. His belief was that managers have been given flexibility to the extent necessary to fulfill business activities and strategies in terms of community needs [1953, p. 55 & Ch. 5]. This appears to have grown out of his historical interpretation of the growth of regulation [1953, Ch. 1 & 6]. Given this focus, Littleton argued that the purpose of accounting is "(T)o make possible the periodic matching of costs (efforts) and revenues (accomplishments)" [1953, Ch. 2]. Furthermore, there must be a congruency between the measurement of costs for reporting purposes and managements' strategies and accomplishments (periodic revenues) for the organization as a *whole*. Managements' congruent costing at period's end (including unexpired costs of fixed assets) in terms of overall strategic plans coincided with Littleton's own edict of fairness amongst competing parties [1953, Ch. 1 & 2, pp. 84-95]. Consequently, in his view, capital maintenance is a policy option of management and not a fundamental objective for accounting itself [1953, p. 23]. Moreover, no current market price can have a general status of fairness applicable to all firms [1953, Ch. 12], particularly where long-term strategies for periodic assets exist [see also Bell et al., 1997].

Littleton knew from examining over four hundred years of history that managements' attempts to adopt their own

[9] 2. Ch. 239.

'exchange values' for fixed and current assets generally had been too hazardous in practical terms [1953, p. 84]. While possibly relevant and theoretically consistent in financial terms with managements' economic planning and financial strategies, management's valuation in exchange was impracticable for general use because of speculation and reporting abuses [1953, p. 85]. Thus, Littleton elected to revive and support the *general* application of historical cost. This move was expedient, not ideological, in that it brought together his logical and historical reasoning for congruent values in exchange and generalized conservatism. However, cost as the central focus for accounting units remained, as it remains today, with revenues as compensation and profit as reward [Littleton, 1953, p. 95].

The profit and loss method under Littleton's [1953, pp. 84-91] structure, whereby established professional justification procedures provide for *methodological* objectivity [Dewey, 1947] together with periodic costing relevant to management's existing strategies, represents the core of his structural theory. This process does not in itself justify the generalized expediency of mandatory historical cost. Strictly speaking within the framework, costs are specific to managerial strategies for the firm in its environment. Under more recent professional attempts at standardization these might often be justified through the use of historic and current market prices as surrogates for management values in exchange. Nevertheless, generalization cannot posit some kind of ideal for accounting practice. The environment for observation of a complex set of operations under longer-term planning has different conditions for observation and more variety in its natural setting than does observation for valuing a corner store in a perfect market at two points in time. Accountants had grown to understand this complexity of production issues as the emphasis for relevant periodic costing since the 17th century [Howard, 1932]. In fact, professionalism in accounting practice had moved, and continues to move, towards providing credibility for reduced reliance on non-proximate market prices as values.

Littleton's argument, which is accepted here as having been adopted by the courts, is that the gradual movement away from market valuation methods at discharge of venture responsibilities to periodic income determination as a product of the double entry system was scientific [1953, pp. 80-90]. It reflected evolutionary changes in various social, commercial and legislative conditions. Moreover, legislators never intended managers to be overwhelmed or thwarted by charge/discharge financial reporting of valuations reflecting shorter-term perspectives, a problem evident in many securities markets today. The success and security of investment plans for the contribution of capital by shareholders collectively were agreed to be important. However, these issues had to be placed in perspective against the invention and growth of goods and services for the community as a whole. For instance, the Joint Stock Companies Registration and Regulation Act, 1844 was introduced to assist productive enterprises towards longer-term objectives for invention, innovation and growth. Consequently:

> The maintenance of capital is indeed important, but maintenance is an objective of management policy . . . The proper matching of costs and revenues carries the relation of capital and income further than does the relation of principal and interest. The action of matching treats capital as a means, income as an end [Littleton, 1953, p. 23].

Emphasis by the courts on freedom of contract over arbitrary and restrictive creditor and shareholder protection proposals and concepts appears to have mirrored the nature and general tenet of companies legislation introduced by the British Parliament during the 19th century.

INSTITUTIONAL AND PROFESSIONAL CONTEXTS

Dicey [1905; 1914] argues that after 1825, British legislative history comprised two relatively distinct periods of 'laissez-faire' individualism (1825 to 1868) and 'collectivism' (1868 to 1900). Company legislation introduced and adopted during the laissez-faire period generally aimed at avoiding any restrictions over freedom of contract [Dicey, 1914, p. 146]. In contrast, the collectivist era was characterized by company legislation designed to secure protections such as compulsory financial disclosure, particularly for those individuals who lacked influence over the directorate [Dicey, 1914, p. 264]. While convenient as a framework for examining the evolution of corporate legislation for disclosure in Britain during the 19th century [Jones and Aiken, 1995; 1999], Dicey's [1905; 1914] thesis has been subject to a number of criticisms [Brebner, 1948, p. 71; Roberts, 1961, pp. 78-83; Cosgrove, 1980, pp. 171-194; Perkin, 1981, pp. 57-60; Walker, 1996, pp. 306-312].

Questions about Dicey's [1905; 1914] framework highlight a number of issues, including characteristics of laissez-faire and collectivist elements in both pre- and post-1870 legislation

[MacDonagh, 1977, pp. 9-11; Wood, 1982, p. 126; Harris, 1992, p. 118]. Also, multiple political and public doctrines either compete against or encapsulate laissez-faire and collectivist ideologies [Parris, 1960, pp. 35-36; Parris, 1969, p. 273; Lubenow, 1971, p. 9; Henriques, 1979, p. 260; Robb, 1992, pp. 17-18, 148-158]. The malleability of definitional boundaries is also a problem [Taylor, 1972, p. 12; Holmes, 1976, pp. 683-685]. While important, the debate surrounding Dicey's division of public policy making in Britain into distinct periods is relevant here only to the extent that it highlights two significant themes: (1) the apparent coexistence of both laissez-faire/economic liberal and collectivist/interventionist ideologies in 19th century British companies legislation [MacDonagh, 1977, pp. 9-11; Wood, 1982, p. 126; Checkland, 1985, pp. 158-159]; and (2) the general ascendancy of economic liberal strategies in social and macroeconomic policy up until the early 20th century [Crouch, 1967, p. 199; McCord, 1970, pp. 126-128; Taylor, 1972, p. 39; Crouzet, 1982, pp. 108-109; Parker, 1990, pp. 54-59; Robb, 1992, p. 189].

Undoubtedly, any attempts to categorize history into discrete and coherent periods is likely to yield anomalies. For instance, while the 1840s and 1850s have been described as the high point of laissez-faire in Britain [Court, 1962; Hobsbawm, 1973, p. 190ff], there appeared to be implicit acceptance of state intervention to secure individual rights and to protect private property [Dicey, 1914, pp. 260-261; Taylor, 1972, pp. 53-64; Paul, 1979, pp. 47-48]. Furthermore, Maltby [1998, p. 14] argues that laissez-faire is not, in itself, an adequate explanation for the way in which companies were regulated during the 1850s and 1860s:

> Although politicians invoked laissez-faire, they were not prepared to pursue it rigorously, because of the impossibility of making a clear distinction between the preservation of individual and collective rights [Maltby, 1998, p. 12].[10]

Consequently, it appears that legislators were not trying to do away with company regulation, but merely seeking to identify a minimalist framework within which companies could operate [Maltby, 1998, p. 13].

Despite the important restrictive disclosure and auditing provisions contained in the 1844 and 1845 Acts, both were in substance more liberal than restrictive in character. Underlying

[10] See also Brebner [1948, p. 71], Perkin [1969, p. 325; 1981, pp. 57-68] and Seaman [1972, p. 170].

the 1844 and 1845 Acts was the expectation by legislators that economic progress through capital centralization and the resultant economies of scale in production would contribute towards economic prosperity [Court, 1962; Hobsbawm, 1973]. Accordingly, one of the principal tasks of limited liability was to emancipate free enterprise by harnessing the increasing glut of domestic investment capital that had appeared because of the Industrial Revolution [Dicey, 1914, p. 202; Hunt, 1936, p. 118ff]. For example, during the 1790s, industry funding needed for merchandise and other inventories and fixed capital formation were on an equal footing. However, by 1835 the fixed capital needs of industry were three times that of merchandise and inventory requirements combined [Crouzet, 1972, pp. 32-33]. Accordingly, neither the 1844 or 1845 acts represented simply an attempt to increase investment opportunities for banks and other financial institutions.

As the demands for increasingly larger and more productive plant began to outstrip the ability of banks to accommodate effectively the ensuing requests for funds, the banks responded by gradually withdrawing from long-term industrial involvement [Littleton, 1953, Ch. 5]. As a consequence, the responsibility for long-term funding of industry and commerce increasingly fell to the mechanism of limited liability [Jefferys, 1938, p. 160; Goodhart, 1972, p. 135; Kennedy, 1976, p. 160]. The vast majority of private companies initially availed themselves of limited liability to reduce risks associated with soliciting investments from close associates [Lavington, 1921, p. 208; Jefferys, 1938, p. 119; Kennedy, 1976, p. 161] or 'inside' investors [Bryer, 1998; Maltby, 1998]. However:

> . . . when private or internal resources were insufficient and short term bank accommodation was too limited and risky, British firms and entrepreneurs after the 1880's were forced to turn to the second means of implementing limited liability, that of public quotations on a stock exchange [Kennedy, 1976, p. 162].

Both Jefferys [1938] and Bryer [1997] contend that the introduction of limited liability was in the interests of capitalists seeking suitably large investments. Likewise, Maltby [1998, p. 30] argues that:

> The interests of large investors, the 'merchant bankers and merchant princes' . . . predominated throughout. Limited liability favoured them, by offering the possibility for profitable but less risky investment.

However, notwithstanding the benefits provided by limited liability to large investors, the legislation also benefited entrepreneurs with innovative ideas by providing them with more ready access to capital. This occurred despite their initial cautious behavior. For instance, the preponderance of high denomination company shares with large reserves of uncalled capital [Maltby, 1998, pp. 19-20] could be interpreted as typical of an immature market in which creditors were hesitant to relinquish old lending habits. Consequently, directors were compelled to act as if they were operating unlimited liability companies [Kennedy, 1976].

Most significant compulsory British companies legislation was passed during the 'collectivist' era.[11] Much of this legislation either introduced compulsory disclosure and auditing requirements, or else strengthened and modernized pre-existing auditing and accounting provisions. However, the move towards collectivism was not necessarily at the expense of freedom of contract. For instance, the 1862 Act provided that companies were required to adopt the set of articles provided in the Act unless shareholders and directors specifically negotiated a set [Jones and Aiken, 1995, p. 76].

The shift back to disclosure requirements evident in the Companies Act, 1900 can be tied directly to increasing absentee ownership, and the concomitant disappearance of financial intermediaries [Kennedy, 1976, p. 164]. Maltby [1998, pp. 27-28] argues that the general fall in nominal values of shares, combined with a declining use of uncalled capital, had a significant impact during the last third of the 19th century:

> Diversification by large investors, as well as increased participation by small ones, meant that the limited liability company was running into problems of the separation of ownership and control.

Nevertheless, it appears that the legislators were aware of the problems associated with the separation of ownership and control before the advent of the collectivist era.

While the disclosure and auditing provisions contained in the 1844 and 1845 Acts may have discriminated against small investors, their introduction was specifically directed at the

[11] For instance, the Regulation of Railways Act, 1868, the Life Assurance Companies Act, 1870, the Gaswork Clauses Act, 1871, the Metropolis Water Act, 1871, the Building and Friendly Societies Act, 1874, the Companies Act, 1879, the Electric Lighting Act, 1882, the Municipal Corporations Act, 1882 and the Companies Act, 1900 [Brown, 1905; Dicey, 1914; Edey and Panitpakdi, 1956].

prevention of willful acts of 'fraud and illegality'. Compulsory accounting disclosure was not necessarily invoked as a remedy for companies 'faulty in their nature' or 'fraudulent in their objects'. It was recommended as a means of warding off 'mismanagement' by making directors answerable increasingly to 'outside' shareholders [Maltby, 1998, p. 18]. Hence, restrictive accounting provisions were specifically linked by the legislators to the protection of private property and the maintenance of law in line with classical economic philosophies of regulation [Jones and Aiken, 1995, pp. 69-70].

Against this backdrop of legislative and economic change, the accounting profession was undergoing significant changes of its own. Based on the listings in the London Post Office Directory, the number of accountants increased dramatically between 1860 and 1880 from 264 to 700. Following on from this, in 1870 the Institute of Accountants was formed in London. It was subsequently merged with a number of other professional accounting associations in 1880 to form the Institute of Chartered Accountants in England and Wales [Edwards, 1989, p. 277].

Several authors have linked this growth in the accounting profession to changes in companies legislation and the market for company shares [Maltby, 1998; Bryer, 1998, p. 59]. Joint stock companies registered under the Companies Act, 1844 were required to comply with a series of provisions relating to the production and registration of audited balance sheets [Maltby, 1998, p. 11]. While these mandatory requirements were not carried over to the 1856 and 1862 Companies Acts, a number of specific industries were subsequently required to adopt compulsory disclosure and/or audit requirements. For instance, disclosure requirements were introduced for gas companies (Gaswork Clauses Act, 1871) and for electricity companies (Electric Lighting Act, 1882). Compulsory disclosure requirements and audit requirements were also introduced for railway companies (Regulation of Railways Act, 1868), water companies (Metropolis Water Act, 1871) and joint stock banks (Companies Act, 1879) [Morris, 1993; Jones and Aiken, 1995, p. 72].[12] Consequently:

[12] After 1868, auditing and accounting preparation provisions also appeared in a number of Acts relating to the governance of counties, municipalities and parishes, such as the Municipal Corporations Act, 1882 [Brown, 1905, pp. 319-320].

> . . . as a more dispersed group of investors was beginning, albeit slowly, to demand accounting information, an accounting profession was emerging which could supply that information" [Maltby, 1998, p. 28].

While auditing and financial disclosure requirements were eventually granted compulsory status in the Companies Act, 1900 [Edey and Panitpakdi, 1956], audits could have been performed by arrangement for such companies and institutions as the Forth and Clyde Navigation Company (1786) using government loans in earlier times [Forrester, 1980]. In later times, trustee and government monies would have been audited in accordance with the provisions of the Exchequer and Audit Departments Act, 1866.[13] Nevertheless, it is unlikely that government inspectors would have accepted anything but financial statements drawn up by fully skilled financial professionals [Funnell, 2004].

Even though companies legislation provided managers with the freedom to act as innovators in reporting, accountants do not appear to have been passive participants, and many made formative moves to establish themselves as recognized authorities on accounting practice. As such, they would have been vocal about the need for flexibility of directors, as their clients, to achieve their longer-term plans [Lavington, 1921, p. 213; Jefferys, 1938, pp. 295-314; Kennedy, 1976, p. 168; Maltby, 1998, p. 28]. On the other hand, economic advisors to investors and creditors would have noted the increasing opportunities for supplying their services under the new arrangements for lending and the transfer of securities, as well as the need for safeguards in such an environment.

INTERPRETATIONS OF JUDICIAL REASONING

While the uncertainty evident with respect to legislative origins raises questions about whether court cases can reveal fundamental principles of accounting, or of law itself [Rahman, 1992, p. 185], it is possible that one can overemphasize these problems. Accordingly, it will be argued here that questions addressed by the law in considering the acceptability of particular accounting methods for the purposes of dividend determination have usually focused upon: (1) authority for the distribution; (2) transparency of its effects in terms of fairness and/or value for

[13] 29 & 30 Vict. Cap. 39.

money to participants; and (3) managerial freedoms to provide for the on-going capacity for distribution.[14]

With respect to the authority for the distribution, it appears that English judges during the 19th century entertained a hierarchy of priorities consistent with legislative priorities. This hierarchy of priorities began with evolving customs and legislative provisions. For instance, despite the courts generally embracing freedom of contract, there were occasions prior to the *Lee* case when they returned to older principles of equity [Atiyah, 1979, p. 404, in Mills, 1993]. Some of these more traditional principles of equity are evident in companies legislation, such as in the Joint Stock Companies Act, 1862. Once it was clear that legislative provisions were not being breached, the courts reasoned down to non-compliance with contracts and other specific constraints on persons and firms. Consequently, the capital maintenance requirement was only enforced when clear-cut violations of the law occurred [Johnston, 1961, p. 545; Keown and Mann, 1956, p. 163].

In their attempts to evaluate the transparency, fairness and/or value for money of profit calculations and dividend payments, the judiciary was compelled to pay particular attention to specific revenues and expenses. They were undoubtedly assisted towards this end by the increasing popularity of the double account system [Dicksee, 1895, pp. 117-120; Yamey, 1962; Edwards, 1985, p. 19]. While the double account system comprises a method of classifying the balance sheet, a detailed profit and loss account is a conventional feature of this system [Parker, 1990, p. 66; Jones and Aiken, 1994, pp. 202-204]. Moreover, the production of a profit and loss statement is integral to the objectives of the double account system, which are: (1) to demonstrate stewardship or accountability about how capital raised by companies is used or spent; and (2) to distinguish capital from revenue expenditure [Carter, 1937, pp. 1024-1026; Morris, 1993, p. 172].

With respect to managerial freedoms, the increasing distinction between shareholders and directors after 1856 led the courts to adopt the view that financial accounting was primarily determined by the priorities of management. These priorities then focused upon the financial capacities of business opera-

[14] It is interesting to note that normative economists of the 1960s who followed Canning [1929, p. 319] believed practicing accountants were not interested in distribution [Chambers, 1966, p. 99].

tions to fund future operations as directors thought best, and to distribute periodic dividends which were fair to shareholders collectively [French, 1977, p. 322]. In doing so, the courts relegated capital maintenance to a policy option of management [Littleton, 1953, p. 23]. A common theme that links accounting principles is the recognition of the rights of stakeholders under the *specific* circumstances in question. With respect to the specific circumstances encountered, no two legal disputes were identical.

Prior to 1889, Master of the Rolls, Sir George Jessel, provided a number of interpretations of the capital maintenance notion that were seemingly consistent with the intentions of the legislature at the time.[15] The model balance sheet annexed to Table A clearly indicated, by its format, that the amount considered available for dividends was to be discovered by deducting from the value of total assets the sums owing to outsiders together with the amount credited as paid up on the share capital. Consequently, the view emerged that dividends: (1) could not be paid out of capital; and (2) could only be paid out of profits. Furthermore, the two restrictions were ostensibly treated as synonymous. Both were interpreted to mean that only the surplus of net assets over paid up capital could be divided.

After 1889, an alternative interpretation began to gain ascendancy. By substituting the legal notion of capital with concepts of 'fixed' and 'circulating' capital [Dicksee, 1916, p. 14; Yamey, 1941, p. 280], and by rejecting the idea that legal precedent did not permit companies to pay dividends if net assets were less than the paid up share capital, the reforming judges were able to provide important freedoms to businessmen with respect to dividend policy. Furthermore, they were able to maintain consistency with the broader legal precedent that dividends must not be paid out of 'capital' [French, 1977, p. 318]. However, in the process the courts significantly undermined the importance of the surplus method of accounting measurement in favor of the profit and loss account method. This followed an emphasis on production rather than on consumption, a focus which had existed since larger firms emerged in numbers during the 17th century [Howard, 1932].

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[15] For instance, *re Ebbw Vale Steel, Iron and Coal Company* (1877) 4. Ch.D. 327, *re Dronfield Silkstone Coal Company* (1877) 17. Ch.D. 76, *re National Funds Assurance Company* (1878) L.R. 10. Ch.D. 118, *Dent v. London Tramways Company* (1880) 16. Ch.D. 344 and *re Exchange Banking Company* (Flitcroft's Case) (1882) 21. Ch.D. 518.

By suggesting that the two major legal limitations in fact had different meanings, the judiciary managed to maintain consistency with the precedent that dividends should only ever be paid out of profits. However, profits were no longer necessarily tied to the surplus of net assets over paid up share capital, as was evident from the findings in *Verner v General and Commercial Investment Trust* (1894).[16] While attempting to distinguish between circulating and fixed capital for the purposes of profit measurement, Lindley, L.J. concluded that:

> Perhaps the shortest way of expressing the distinction which I am endeavouring to explain is to say that fixed capital may be sunk and lost and yet the excess of current receipts over current payments may be divided, but that floating or circulating capital must be kept up as otherwise it would enter into and form part of such excess, in which case to divide such excess without deducting the capital which forms part of it will be contrary to the law.

Similar views were expressed by judges in other cases.[17]

The adoption of notions of fixed and circulating capital was also likely to have been aided by the increasing use of the double account system [Dicksee, 1895, pp. 117-120; Yamey, 1962; Edwards, 1985, p. 19], which actually presupposes a distinction between fixed and circulating capital [Cooper, 1888, p. 744]. However, because neither circulating nor fixed capital could be defined without reference to the specific accounting situations and strategies from which they had arisen, the courts relied increasingly upon management and company objectives to aid in establishing distributable profit for legislative purposes. Furthermore, where there was no suggestion of illegal activity or bad faith, the courts deferred to accepted accounting practice and therefore maximized management's opportunities to act and provide on-going distributions to shareholders [Yamey, 1962, pp. 430-431].

Critical to the acceptance and promulgation of these views was their compatibility with other forms of creditor protection, such as the solvency rule [French, 1977]. The solvency rule, whereby it was illegal for a company to pay a dividend if to do

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[16] 2. Ch. 239.

[17] *Binney v Ince Hall Coal and Cannel Company* (1866) 35. L.J. Ch. 363; *Lord Rokeby v Elliot* (1880) 41. L.T. 537, modifying (1878) 38. L.T. 846; and *Ammonia Soda Company Limited v Chamberlain* (1918) 1. Ch.D. 208.

so would make the company insolvent, was first introduced in the Companies Act, 1855 (section 9). Although the provision was carried over to the Companies Act, 1856 (section 14), it was subsequently omitted from the Companies Act, 1862. Nevertheless, the solvency rule clearly made an impression on the judiciary at the time, and appears to have had an on-going influence over judicial reasoning.[18]

French [1977, p. 320] suggests that the similarities between the solvency rule and other contemporary legal requirements, such as the fiduciary duties contained in trust law, encouraged the courts to adopt the solvency rule as a guide to creditor protection. Nevertheless, having real world references in the form of liquidity and leverage, the solvency rule was less likely to constitute an arbitrary constraint over management's ability to control and direct longer-term business activities, particularly the provision of on-going distributions to shareholders.[19] Consequently, the rule was able to provide a guide to minimum creditor protection without inhibiting legitimate trading activities.

EVOLUTION OF CAPITAL MAINTENANCE ISSUES

Authority for the Distribution: The authority and legitimacy of the dividend distribution appear to have been foremost amongst the concerns of the judiciary and on many occasions these priorities overrode the upholding of agency type contracts. For instance, in *MacDougall v. Jersey Imperial Hotel Co.* (1864),[20] Sir W. Page Wood held that the payment of dividends during a period when there were no revenues clearly amounted to a payment out of capital and, therefore, was illegal.[21] Subsequent

[18] *Lee v. Neuchatel Asphalte Company* (1889) 41. Ch.D. 1; *Verner v. General and Commercial Investment Trust* (1894) 2. Ch. 239; *in re National Bank of Wales* (1900-1903) All E.R. Rep. 484; *Dovey and the Metropolitan Banks of England and Wales Limited v. John Cory* (1901) A.C. 477; and *Wilmer v. McNamara and Co. Ltd.* (1895) 2. Ch.D. 245.

[19] *Lubbock v. British Bank of South America* (1892) 2 Ch.D. 198; *Ammonia Soda Company Limited v. Chamberlain* (1918) 1. Ch.D. 208; and *Dimbula Valley (Ceylon) Tea Co. Limited v. Laurie* (1961) 1. All E.R. 769.

[20] 2 H.& M. 528.

[21] It should also be noted that in 1864 there were no statutory provisions requiring companies to pay dividends out of profit and that the rule was invoked on the basis of public policy [Ford et al., 1999, p. 40]. See also *re Ebbw Vale Steel, Iron and Coal Company* (1877) 4. Ch.D. 827, *re National Funds Assurance Company* (1878) L.R. 10. Ch.D. 118, *Guinness v. Land Corporation of Ireland* (1882) L.R. 22. Ch.D. 349, *re Alexandra Palace Company* (1882) 21. Ch.D. 149 and *Flitcroft's Case* (1882) 21. Ch.D. 519.

cases overwhelmingly confirmed the view that dividend payments could not be made to shareholders where there are no 'profits' reported, even where private contracts guaranteed such payments.[22]

If it was clear that individual stakeholder rights were not at risk, the courts most often appeared satisfied to enforce express agency-type agreements stipulating the use of particular accounting methods for profit and dividend determination. This is consistent with the view that the judiciary reasoned downwards from evolving customs and legislative provisions to non-compliance with agency contracts. For example, in *Davison v Gilles* (1879),[23] Jessel, M.R. concluded that in the company's articles, profits meant 'net' profits, principally " . . . because you do not get a reserve fund at all until you have paid your current expenses" [p.193n].[24]

Accounting principles and practices, or more precisely the numbers they generate, are often used to define competing property rights between contracting parties [Watts, 1977]. However, with respect to judicial priorities the need to uphold *specific* rights established under agency contracts overrode the expectation that companies should comply with *generally* accepted accounting principles and procedures. As long as neither the legislation nor creditors' protection had been violated, the requirements of the articles of association were respected. For instance, in *Dent v London Tramways Co.* (1880),[25] Jessel, M.R. sanctioned the payment of a preference dividend on the basis that, in accordance with the companies articles, there existed a profit for the year. Therefore, to have decided otherwise would have caused an obvious injustice [Yamey, 1962, p. 441]. Likewise, in *Lambert v Neuchatel Asphalte Company* (1882), Bacon, L.J. rejected the claim that the company should provide for depreciation of a long-lived mining lease on the grounds that the company's articles required no such reserves to be established. Bacon suggested that although Jessel's definition of 'net' profits

[22] See also *Salisbury v Metropolitan Railway* (1870)(2) 22. L.T. 839, *re Oxford Benefit Building and Investment Society* (1886) L.R. 35. Ch.D. 502, *Trevor v Whitworth* (1887) 21. App. Cas. 409, *Leeds Estate, Building and Investment Company v Shepherd* (1887) L.R. 36. Ch.D. 787 and *re Walters' Deed of Guarantee* (1933) 1. Ch. 321.

[23] 16. Ch.D. 347n.

[24] See also *Dent v London Tramways Co.* (1880) 16. Ch.D. 344 and *Kehoe v The Waterford & Limerick Railway Co.* (1888) L.R. 21, Ir. Ch.D. 221.

[25] 16. Ch.D. 344.

in *Davison v Gilles* (1879) was no doubt appropriate in the circumstances of that case, Neuchatel Asphalte's articles stated otherwise [pp. 884-885].[26] Similar reasoning to this was used subsequently in the *Lee* case.

In the lower court proceedings of the *Lee* case, Stirling, J. had refused to enjoin a dividend since the plaintiffs had failed to prove that the value of the company's assets had deteriorated [Kitchen, 1974, p. 124].[27] Stirling, J. indicated that his views on capital maintenance were closely aligned to those of Jessel's [Reid, 1987b, p. 251 and footnote 19].[28] However, he suggested that at some future time the company might have to set apart a substantial sum to represent depreciation in the value of the concession. This implies that at the time the charging of depreciation was regarded as indicative of the making of a good faith valuation of assets and that, provided there was nothing to suggest management had acted illegally, capital was being maintained [French, 1977, p. 309].[29] Nevertheless, the charging of depreciation was not compulsory, and *specific* rights established under agency contracts could in fact override the requirement that companies comply with *generally* accepted accounting principles.

Transparency of Distributional Effects: Another important influence over judicial reasoning with respect to dividend payments was the transparency of the profit calculations and the fairness of the resulting distribution. By adopting such a viewpoint, the courts were compelled to concentrate on specific revenues and expenses within the overriding considerations of the objectives of management and the company. For instance, in *Bale v Cleland* (1864),[30] Martin, J. agreed with the company's accounting treatment of preliminary expenses on the basis that allocating capitalized cost as an expense over future periods was consistent with the accounting practices adopted by railway

[26] Furthermore, Bacon, L.J. suggested that while " . . . the Court will interfere to redress any wrongs, . . . the Court never interferes to prescribe to companies what they shall do as to their own internal affairs" (p. 883).

[27] Not only had the terms and size of the concession recently been extended, but it was also being held on more favorable terms than had originally been the case.

[28] As suggested by Yamey [1941, p. 277], Stirling, J. " . . . merely reaffirmed the earlier series of decisions".

[29] For instance, *Binney v Ince Hall Coal and Cannel Company* (1866) 35 L.J. Ch. 363 and *Mills v Northern Railway of Buenos Ayres Company* (1870) L.R. 5. Ch.App. 621.

[30] 4. F. & F. 117.

companies in similar circumstances at the time. However, the court rejected the company's treatment of expenditure incurred for research and development purposes as it had been applied in an arbitrary manner. Subsequent cases generally affirmed the courts' acceptance of companies capitalizing preliminary expenditures when applied in a systematic manner and when consistently confirmed by the company's auditor [Best, 1885, p. 573; Dicksee, 1895, p. 55].[31]

The courts focus on specific revenues and expenses as they applied to management's objectives was also evident in the *Lee* case, and a number of cases that followed *Lee*. By emphasizing the distinction between capital and revenue accounts, both Lopes, L.J. and Lindley, L.J. averted the possibility of including accretions or diminutions of capital in the determination of profits.[32] In doing so, the presiding judges effectively focused the legal fraternity's attention upon commercial and accounting issues, such as the significance of the accounting principle of revenue recognition [Littleton, 1953; Myers, 1959], rather than on a broad definition including principles of capital maintenance [Ford, 1993, p. 100].

Because most of the cases dealing with depreciation heard prior to *Lee* did not involve mining assets,[33] recognized opinion at the time suggested that the *Lee* decision may have applied only to companies working with wasting assets [Morris, 1986, p.72]. Nevertheless, *Lee* marked the beginning of a succession of court cases that further undermined the capital maintenance concept as a means of determining profit for the purposes of dividend distribution [Morris, 1984, p. 59].[34] It also highlighted the role of management and company objectives in determining the distinction between fixed and circulating assets. For instance, in *Verner v General and Commercial Investment Trust* (1894),[35] the court sanctioned a dividend from income received

[31] For instance, *Turquand v Marshall* (1869) 20. L.T. 766, *Rance's Case* (1870) L.R. 6. Ch. App. 104 and *re Oxford Benefit Building and Investment Society* (1886) L.R. 35. Ch.D. 502.

[32] See also *Glenville Pastoral Co. Pty. Ltd. v. FCT* (1963) 109. C.L.R. 199 and *BTR Nylex v. Churchill International Inc.* (1992) 9. A.C.S.R. 361.

[33] *Davison v. Gillies* (1879) 16. Ch.D. 347n; *Dent v. London Tramways Co.* (1880) 16. Ch.D. 334; and *Leeds Estate, Building and Investment Society Ltd. v. Shepherd* (1887) 36. Ch.D. 787.

[34] *Re Ebbw Vale Steel, Iron and Coal Company* (1877) 4. Ch.D. 827; *Re Dronfield Silkstone Coal Company* (1877) 17. Ch.D. 76; *Dent v. London Tramways Company* (1880) 16. Ch.D. 344; and *Lawrence v. West Somerset Mineral Railway Company* (1918) 2. Ch. 250.

[35] 2. Ch. 239.

from securities despite the trustees failing to make good the loss in the value of the securities. However, Stirling, J. did suggest that had the company been an ordinary trading company his decision would have been different.[36]

Cases subsequent to *Lee* further reinforced the courts' rights to consider each case presented on its own merits. For instance, in the case of *Bond v Barrow Haematite Steel Co.* (1902),[37] preference shareholders had urged that a dividend payment be made on the grounds that the losses arising from the flooding of mines and miners' cottages on a lease of mining rights could be ignored. However, in his judgment Farwell, J. declared that his opinion coincided with that of the experts, inasmuch as he thought that the money invested in these items (mines, etc.) was properly regarded in this company as circulating capital. Consequently, losses caused by the flooding had first to be made good before distributable profits were calculated [Ford and Austin, 1995, p. 666]. Following the precedent established in *Dovey v Cory* (1901),[38] Farwell, J. stated that:

> . . . the real question for determination, therefore, is whether there are profits available for distribution and *this is to be answered according to the circumstances of each particular case, the nature of the company, and the evidence of competent witnesses* (*emphasis added*).[39]

Underpinning the judicial decisions described above was the court's wish to avoid any ruling which could fetter the legitimate activities of the company under the particular conditions encountered [Littleton, 1953, Ch.11]. For instance, Lindley argued in the *Lee* case that it was not for the court to interfere in the activities of businessmen, particularly as there had been no suggestion of bad faith. Lindley also suggested that the appellant's argument that capital be maintained at all costs should be dismissed. By entertaining such ideas the court was being invited "to lay down certain principles, the adoption of which would paralyze the trade of the country".[40] Lindley had

[36] See also *Bolton v Natal Land and Colonisation Co.* (1892) 2. Ch. 124 and *re Kingston Cotton Mills Co., No.2* (1896) 1. Ch. 331.

[37] 1. Ch. 353.

[38] *Dovey and the Metropolitan Banks of England and Wales Limited v John Cory* (1901) A.C. 477.

[39] Interestingly, Farwell would have come to the same conclusion whether he had followed the House of Lords *in re National Bank of Wales* (1900-1903) All E.R. Rep. 484 at 365, or if he had followed the Court of Appeal's *Lee* ruling.

[40] 41. Ch.D. 1, at 24.

based his views on the fact that the legislation contained no direct reference to the payment of dividends [Yamey, 1941, pp. 277-278].

Managerial Freedom to Provide for the On-Going Capacity for Distribution: While the findings in the *Lee* case did not require depreciation to be charged on fixed assets in that particular case, nothing in the judges' findings forbid the practice outright. This appears to be borne out by the limited impact the *Lee* case had on the rate of adoption of depreciation accounting amongst British mining companies [Morris, 1986]. Of paramount concern to the judges was that funds should not be arbitrarily locked into business entities that may not have any immediate or longer-term prospects. Thus, the *Lee* decision was not so much a special situation only generally applicable to companies working wasting assets [Morris, 1986, p. 72], but a special situation which was only generally applicable to companies operating specific projects with limited lives.

In the *Lee* case, the directors did not intend that the company would carry on the business in perpetuity. Consequently, there was little point in providing for the continuity of the asset [Dicksee, 1895, pp. 128-129; Morris, 1986, p. 72]. However, in cases where the charging of depreciation was considered appropriate for the circumstances, the courts held that the businessman's view on depreciation should be accepted.[41] Consequently, the role of depreciation in company accounting was interpreted by the courts to facilitate continuity of the firm in its environment where continuity was an objective of management. Where it was not, real world outcomes from the reporting process itself, such as dividend restriction, were not supported by principles which were unfair in the context.

General acceptance of the profit and loss method by managers may well have guided the courts towards the view that funds should not be arbitrarily locked into business entities. For instance, it was conventional under the profit and loss system that fixed assets were neither valued nor depreciated [Jones and Aiken, 1994, p. 204]. Nevertheless, the profit and loss method still permitted managers to charge depreciation if the circumstance warranted. In contrast, profit determination under the surplus approach required entities to incorporate changes in the value of all their assets, including non-current and fixed assets,

[41] For instance, *Rishton v Grissell* (1868) L.R. 5. Eq. 326 and *Kehoe v The Waterford & Limerick Railway Co.* (1888) L.R. 21, Ir. Ch.D. 221.

in the computation of profit [Kehl, 1976, pp. 3-13; Revsine, 1981; Jones and Aiken, 1994, p. 201].

While cases subsequent to *Lee* did little to clarify the main problems with capital maintenance issues, they did confirm the trend in the post-*Lee* decisions [Yamey, 1941, p. 282]. For instance, when the *National Bank of Wales* case reached the House of Lords as *Dovey v Cory* (1901),[42] the view was taken that rigid rules could be potentially disastrous to companies:

> People put their money into a trading company to give them an income, and the sudden stoppage of all dividends would send down the value of their shares to zero and possibly involve its ruin.

Judicial hesitation over forcing trading entities to retain funds beyond an amount which was considered 'economically sensible' diminished any opportunities to make the capital maintenance concept explicit. However, as the continuity of a harmonious relationship between shareholders and management depends on the regular payment of dividends as well as management's control over strategy formation, the law's concession was of great value. It also provided a means by which the judges could ensure capital was not bound up in any particular investment profile. Nevertheless, if there had been any confusion surrounding the issue of paying dividends out of the excess of receipts over current expenses despite fixed capital being lost, the *National Bank of Wales* case was probably the best opportunity available to the judiciary to re-establish the position taken prior to 1889. However, the judiciary declined to take up this opportunity [French, 1977, pp. 314-316], the Lord Chancellor doubting whether dividend questions could ever be treated in the abstract at all [Yamey, 1962, p. 436]. Furthermore, the capital maintenance principle enunciated in the *Lee* case, that business matters are the province of business men, was reaffirmed by the highest tribunal [Yamey, 1962, p. 437].

The findings in subsequent cases, such as *Lawrence v West Somerset Mineral Ry.* (1918),[43] established conclusively that the judiciary had clearly rejected the doctrine of capital maintenance. While the payment of a dividend and the imminent termination of the lease on the firm's principal asset would have left inadequate assets to repay the bondholders in the event of

[42] *Dovey and the Metropolitan Banks of England and Wales Limited v John Cory* (1901) A.C. 477.

[43] 2. Ch. 250.

dissolution, the court refused to intervene on behalf of the bondholders because the dividend was being paid out of divisible profits [Yamey, 1962, p. 437].

CONCLUSIONS

Principles, conventions and rules of science-based professions have respected, sustained and empowered the methodological precedents of their respective disciplines over time. This is especially so in the human and biological sciences [Dewey, 1939, 1947; Foucault, 1970, p. 363; Grene, 1985, p. 7]. In this sense decisions of the courts in the 19th century and the associated schema of Littleton [1953, Ch. 1, 5, 8 & 12] presume a continuing duty to avoid epistemological anomalies and unfair outcomes in practice. These might be associated with the use of microeconomic theories. That is, accounting choices imposed on management which give rise to values and other amounts which lack congruency with managerial strategies could distort accounting practices for the firm as a *whole* in its specific and continuing environment. These numbers potentially lack authenticity as traditional justifications, being a first step in knowledge towards the discovery and establishment of a new 'situation' for observation and analysis [Dewey, 1939, Ch. 6; Grene, 1985, pp. 7-8]. They might also lack the capacity to facilitate understanding of pre-conditions as analytical observations, thus necessitating change to methodological traditions [Hopwood, 1987].

On numerous occasions both before and after the *Lee* case British courts were asked to adjudicate on the appropriateness of particular measurement methods for the purposes of dividend determination. In general, the judges exhibited a consistency in their decision-making. Furthermore, no substantial evidence exists to suggest that the courts took the view that longer-term management strategies should be subsumed by annual disclosure of current 'value to the owner' calculations under the surplus method. Judicial attempts to understand accounting valuations as they related to distributional issues were predominantly concerned with management capacity to control and direct business activities and to determine on-going distributions to shareholders, particularly in the longer-term [Yamey, 1941; Littleton, 1953]. Consequently, it has been argued here that the British courts rejected the surplus method of profit determination for distributive purposes on the grounds that as a methodology it is insufficiently robust to envisage many of the specific risk factors, estimates of cash flows and resultant dividend distributions incorporated into management's planning horizons [Bell et al., 1997].

Hopwood [1987] may have divined the element of traditional accounting practice as determined by the courts from his observations of the transformation of Josiah Wedgwood's accounting system (1772) for the firm as a *whole*. This was in its overall role of matching performance of the firm to its environment. The matching principle based on relevant costing has been established in Europe since the 17th century [Howard, 1932, p. 93]. Unless facing a perfect market [Beaver and Demski, 1979], this ethic for matching under double entry cannot be displaced by selection of historic or current market prices, although they may be used as proximate prices for justification of unexpired costs under the traditional production emphasis. Thus, when Wedgwood established his new system based on accounting practices relevant to both the strategies and the decision structure of the organization as a whole, then innovative qualities empowering origin and persistence of accounting practices could come into play:

> The fine details of the production process could now be related to the aims and performance of the organization as a whole. Policies created at the top of the organization could be related to specific aspects of organizational functioning" [Hopwood, 1987, p. 218].

In other words, Hopwood's basic measurement structure should ultimately be related downwards to Kaplan and Norton's [2001a; 2001b; 2004] 'balanced scorecard' for congruence with established and on-going management strategies and related profiles.

The basic ethic of accounting measurement captures the spirit of traditional macro evolutionary practice and legal precedents where periodic evaluation of prospects and strategies for the firm as a whole becomes aligned with management awareness under the profit and loss method favored by the courts. Accordingly, the judiciary did not prohibit the use of economic concepts such as depreciation. Rather it was a discretionary responsibility of managers who would be expected to *justify* the calculations and the resulting periodic financial outcomes [Dicksee, 1895, pp. 128-129; Morris, 1986, p. 72]. Littleton, although an economist, followed the tradition and suggested that " . . . depreciation measures the productive contribution of the asset in question" [1953, pp. 212-213]. However, without justification he chose to adopt the expedient solution of linking periodic assessment of asset prices and depreciation to 'invested cost' in market places, being generalized historic cost. Despite protestations to the contrary [1953, Ch. 2, 5 & 8], this historical market price process turns his profit and loss structure into a quasi-surplus method having no status in periodic reporting. It mandates depreciation as an accounting principle, a process not endorsed by the British courts under the double entry reification of management responsibilities for control in financial terms. Traditionally, market prices of any kind are proximate prices and surrogates for 'objectivity' in practice. The do not imply the 'essence' of periodic accounting measurement [Hopwood, 1987, p. 211]. Under Littleton's [1953] macro-evolutionary approach, costs become outputs as benefits to the community as a whole; revenues are compensation to the entity; and profits are rewards [p. 95].

This ethic of justification would have been seen by the British courts as driving the double entry system for the firm as a whole entity in practice; not current market prices as increases of value to the owner being an economic reference to periodic capital maintenance. However, this only applies if business institutions have not given up long-term planning for production in favor of shorter-term asset revaluation to enrich speculation in the buying and selling of securities.

While microeconomic measures of market prices may be relevant in certain specific circumstances, they may not of themselves provide outside of perfect markets a picture of the firm's *whole* performance under managerial strategies [Bell et al., 1997]. For instance, a study of Lindley, L.J. in *re London and General Bank* (no.2) (1895)[44] shows that more than the discovery and 'adding up' of market prices is required for the independence and competence of auditors. In addition, the distinction between circulating and fixed capital has come to be generally regarded as arbitrary and, therefore, unworkable for the purposes of economic-based models of profit measurement [Cooper, 1894, p. 1041; Revsine, 1973; Prakash and Sunder, 1979; Samuelson, 1980]. Nevertheless, this has failed to this day to inhibit the general acceptance in practice of costing methods based broadly upon fixed and variable concepts. These are aids in determining congruence with management strategies unless constrained by the 'lower of cost and market' rule [Aiken and Ardern, 2003].

[44] 2 Ch.673; 64 L.J. Ch. 866.

In more recent times, accounting standard setters in Britain and Commonwealth countries such as Australia have adopted a different approach to that of the British judiciary. In an attempt to restrict the role of managerial judgment, policy makers have increasingly sought to limit the permissible number of classification, measurement and transformation procedures [Bromwich, 1985, p. 1; Taylor and Turley, 1986, p. 1; Langfield-Smith, 1990, p. 6]. Policy makers have also recommended that economic values be allowed under professional accounting standards and that companies produce abridged financial reports. Many of these changes appear to be reactions to events such as corporate collapses that reveal systematic abuses of accounting procedures. However, some appear to be reactions against historical cost as a general rule. The first step toward avoidance of disclosure type losses is, however, enforcement of managerial valuation obligations.

The British courts in the 19th century clearly assumed that the legislators had not intended to force companies to disclose periodic changes only in the market prices of fixed assets where management's strategies were longer-term. Moreover, they appreciated that these reporting behaviors could diminish on-going economic opportunities and social responsibilities, and thus potentially restrain management's capacity to plan and to adapt to new challenges for the firm. Instead, the courts focused on the periodic matching of costs ('efforts') and revenues ('accomplishments'), and whether there existed a congruency between the measurement of costs (both expired and unexpired) and management's long-term strategies.

If something different to a periodic overall macro portrayal of the whole firm under management's strategies in its specific evolving environment for continuity is required in the modern era, then governments, economists, stock market analysts, liquidators and potential investors may need to be prepared to sponsor individual specialized reports. This is how markets for micro information should work in a free-enterprise society [Beaver, 1981]. As for capital maintenance, environmental factors relating to a diversity of planning horizons and risks have varied, but not necessarily or generally corrupted, choice of accounting measures under standardization [Aiken and Ardern, 2003]. Historically, a need for objectivity and economic measurement for the community did not cloud the focus of the British courts on management's mission as the longer-term criterion of financial success. This may provide relevance for accounting assessments of unexpired costs as congruent residuals of periodic activity [Littleton, 1953, p. 98].

The courts in 19th century Britain would have been aware that the emergence of large-scale private organizations facing imperfect markets since the end of the 17th century had given emphasis to accounting for relevant costs with a focus on production, not consumption [Canning, 1929, p. 319; Howard, 1932, p. 93]. Relevant costing for 'unexpired costs' [Littleton, 1953, Ch. 5] is not the expediency of generalized historical costs. It must be congruent with management strategies for the organization as a whole under the double entry based profit and loss approach [Hopwood, 1987, p. 218; Bell et al., 1997]. Away from complete and competitive markets [Nickel, 1995], macro-evolutionary accounting reports of this nature cannot be reduced generally to scientific laws and principles of microeconomics as a theoretical and legal ideal under capital maintenance hypotheses or related efficiency criteria [Shwayder, 1967; Beaver and Demski, 1979; Ayala, 1985].

Financial accounting and auditing has often focused on the application of historic and later current market prices, for businesses operating in complete and competitive markets. However, the avoidance of too heavy reliance on such prices, and emphasis on relevant cost control by management congruent with overall strategies (Kaplan and Norton, 2004), not simply upon the collection of more revenues in the shorter-term, is pertinent. Such cost control is pivotal to the extent of innovation and future profit sharing in imperfect markets.

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THE ROARING NINETIES: ACCOUNTING HISTORY COMES OF AGE

Abstract: The paper outlines developments in the accounting history literature during the 1990s. The introduction chronicles the immense broadening of publication opportunities in accounting history that characterized the decade. To a certain extent, this enhancement of outlets resulted from a richer dialogue among accounting historians who became increasingly willing to debate paradigmatic and methodological issues. In this context, the paper identifies and discusses "traditional" and "critical" forms of accounting history and reviews work within the paradigms of economic-rationalist, Foucauldian, and Marxist/labor-process studies. The major elements of debate between "old" and "new" perspectives on accounting history are discussed and linked to later collaborative efforts and refinements in the work of each genre. Major research projects published during the 1990s are identified, tabulated, and discussed. The paper concludes with a discussion of accounting history as the decade closed, with a particular focus on the opportunities and threats that may lie ahead for the field.

INTRODUCTION

While accounting history has enjoyed a distinguished presence as an academic discipline for over a half-century, it was only in the last decade of the 20th century that a substantial expansion and maturation of its research agenda occurred. Concomitant with the growing number of accounting historians, practitioners whose first language is other than English have been welcomed into the field in ever-increasing numbers. Many

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of these newer entrants espouse willingness to debate paradigmatic and methodological issues that in earlier generations went largely undiscussed. In this article, we will examine how accounting history during the 1990s has built upon the precedents established by the founders of our craft.

Perhaps more than anything else, accounting history's coming of age is reflected by the wide expansion of publishing opportunities for research. The range of outlets for historical work is discussed in Fleischman and Tyson [2003] and need not be reiterated here. What is germane to this study of the discipline under review is the fact that three of the six journals which have taken the lead in publishing accounting history – *Accounting, Business & Financial History* (*ABFH*) (U.K.), *Accounting History* (*AH*) (Australia/New Zealand), and *Critical Perspectives on Accounting* (*CPA*) (U.S./Canada) – commenced operations during the 1990s. Only *Accounting, Organizations and Society* (*AOS*) and the *Accounting Historians Journal* (*AHJ*) have significantly older ancestries, while the *Accounting, Auditing & Accountability Journal* dates from 1988.

A further indication of accounting history's forward march during the decade has been the proliferation of international conferences in which the discipline's scholarship is featured. *ABFH* sponsors an annual fall conference in Cardiff; *AHJ*, through its parent organization, the Academy of Accounting Historians, holds an annual research conference, typically in the late fall; and *AH* is now sponsoring biannual conferences. A three-year conference rotation features the Asia Pacific Interdisciplinary Research in Accounting conference coordinated by *AAAJ*; the Interdisciplinary Perspectives on Accounting conference, traditionally hosted by the University of Manchester; and the *CPA*'s conference in New York City. The World Congresses of Accounting Historians have continued to meet through the 1990s, most recently on a two-year cycle. Also, the European Institute for Advanced Studies in Management has conducted specialist conferences in accounting history.

There has been one negative change in the overall mix and character of publication outlets available to accounting historians, especially in North America. Formerly, certain flagship U.S. accounting journals were willing to publish quality history articles.[1] Although not a stated editorial policy, these journals no

[1] *The Accounting Review* typically published one or two history articles per year throughout the decade of the 1980s. To the best of our knowledge, there have been no purely history publications there since 1991. This direction is

longer send history pieces out for review. The effects of such treatment on the flow of history manuscripts to these journals are predictable. The productive pressures of the day mean that research-minded academics cannot afford to send work to journals with such a reputation of treatment, effectively compounding the exclusion of historical work. Since these periodicals remain the ones by which others are measured at certain prestigious, North American institutions of higher education, this exclusion is particularly painful.

This paper will consider two themes in depth that have characterized the accounting history discipline in the 1990s. The first reflects the enrichment of accounting history as increasing numbers of historians provided theoretical groundings for their research findings. While there has been passionate debate among scholars in defense of their paradigms, and sometimes overly zealous discourse, the additive knowledge derived from these interchanges has moved our discipline forward. In this section, we will examine how paradigms matured from earlier origins during the 1990s, along with the major points of contention that defined the predominant paradigms and the respective critiques of each. The discussion will feature key differences that separate critical and traditional historians philosophically on issues such as objectivity, partisanship, the importance of archival research, and factualism. Here also we consider the 1990s as the decade in which the phrase "new accounting history" came into popular parlance. We will examine its implied distinction from an older tradition and whether this dichotomy has been a healthy one for the discipline.

A second focus will be the general themes and directions reflected in the historical literature of the 1990s. Here we consider topics such as the major projects accounting historians have undertaken; the broad methodological and subject areas that dominated the decade's historiography, including the special journal issues that focused attention on these pivotal matters; and the historiographic debates that so enriched the journal literature. In conclusion, we hypothesize about research directions that we see ahead for accounting history as it develops at the start of the 21st century.

This paper does not attempt to chronicle a third and very dramatic development in accounting history during the 1990s –

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clearly out-of-step with the perceptions of accounting academe as to the importance of history to undergraduate and graduate students, as well as to the profession [Slocum and Sriram, 2001].

the emergence of high-quality, non-Anglo-American history that utilizes accounting records in languages other than English. While English remains the *lingua franca* of accounting history publication, the work of scholars whose first language is other than English now appears prominently in leading journals that publish history, allowing for new sources of empirical evidence to be brought to bear.[2] This work is sufficiently diverse as to warrant its own review; others are attending to this in projects now underway [e.g., Carmona, 2002].

HISTORIOGRAPHY

Traditional and Critical: The dichotomy between "traditional" and "critical" accounting historians developed against the backdrop of an older traditional/critical contretemps that was quite unrelated to the discipline itself. An international corps of critical accounting scholars rose to prominence in the 1980s, partly in protestation against the U.S. accounting research mainstream. This research agenda was initially dictated by the Carnegie and Ford Foundation reports of the late 1950s and was perpetuated by a singularly small number of academics who, in actuality, have lost very little of their privileged position in the past two decades. During the 1990s, critical scholars continued this assault on the North American mainstream for its overconfidence in its own objectivity [Lodh and Gaffikin, 1997], its single-minded research agenda [Baker and Bettner, 1997], and its conservative defense of the status quo [Gallhofer and Haslam, 1997]. Any critical/traditionalist debate within this context has been one-sided in that the mainstream has refused to become engaged. These struggles are significant here only in that the labeling of accounting historians as critical and traditionalist raises connotations of an unhappy past and present.

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[2] In response to a reviewer's request, we do wish to mention some of the studies undertaken in the 1990s which featured non-English accounting records and researchers whose first language was not English. Spanish scholars have been particularly active, including Carmona, Donoso Anes, Esteve-Hernandez, and Gutierrez. The contents of French archives have seen light of day thanks to researchers such as Berland, Lemarchand, and Nikitin. An opening of historical Chinese documents has occurred, thanks to the efforts of Xu-Dung Ji and Wei Lu. Significant projects are under way with Ezzamel's study of ancient Egyptian accounting, DeBeelde's research into Belgian coal mining, and Zan's investigation of the Venetian Arsenal's records. The authors are grateful to Salvador Carmona for providing us some ideas for the compilation of this list.

Traditional Historiography: A good starting point for discussion is the "traditional" accounting historian caricature portrayed by Carnegie and Napier [1996, p. 8]. They depicted an historian who "decontextualizes accounting," "subtly denigrates the past" by measuring it in terms of the present, deploys Neoclassical economics as a sole explanatory paradigm, and is embarked on a "treasure hunt" to locate origins and precedents for present-day practices and technologies that are revered as representing linear progress from former darkness. These attributes have all been raised in critical, historiographic analyses of the traditionalist position.

Traditional and critical accounting historians have had substantial disagreements about issues such as objectivity, facticity in history, and the significance of primary-source material. Traditionalists have tended to think themselves the neutral reporters of information they have gleaned from the past through archival investigation. These data are seen as reflective of an historical reality. The post-modernist wing of critical historiography does not hold to this interpretation of the historian's craft. The possibility for an historian to provide an objective narrative is seen by them as inherently problematic. On this there is some agreement; some traditionalists concede that the mere selection of which pieces of information to report from the larger archive is itself subjective [Fleischman and Tyson, 1997]. Related to the objectivity issue is the question of historical facticity. Some traditionalists would argue, as did Tyson [1995], that facts transcend mere perception and should be viewed as representative of reality. Funnell [1996a, p. 48] put the traditionalist position well, observing that many were comfortable with interpretation and theorizing, but that it should "be tethered in its wandering to a spike of facts."

Traditionalists emphasize primary sources as the medium through which the past speaks. However, there are two issues here that critical historians feel constrained to contest. First, do the documents themselves achieve either neutrality or objective reality? The Marxist commentary, especially that of Tinker and his coauthors, has been particularly focused on this point. While much of this debate is a product of the preceding decade, Tinker et al. [1991, p. 37] summarized from the Marxist perspective how accounting becomes an "ideological weapon" in the class struggle over wealth distribution. Second, there are the numerous categories of people who because of economic or social position are not represented in an historical accounting archive. Consequently, the voices of the past speaking to us through primary sources are severely limited. Traditionalists tend to be less pessimistic about the value of primary-source material.

Certain developments of the late 1990s indicate that traditional historians may be moving in more critical directions in exposing events from the darker side of accountancy's past. Initial contributions during the decade include the complicity of accountants in the Holocaust [Funnell, 1998a] and racial control on Hawaiian sugar plantations [Fleischman and Tyson, 2000b]. Subsequent investigation topics that lie beyond the period under review include American and Caribbean slavery [Vollmers, 2003; Fleischman and Tyson, 2004] and the plight of the Irish during the potato famine [Funnell, 2001]. One wonders why such episodes have not become agenda items for critical scholars. We hypothesize that their collective plate is full with those historical events that have more direct contemporary ramifications, such as gender issues, conflicting economic classes, and the plight of minority groups entering the accounting profession. The traditional/critical division of labor on accounting's seamier side may well reflect the linkages perceived to exist between past and present.

Most accounting historians who bear the "traditionalist" label subscribe to an economic-rationalist paradigm wherein accounting developments are explained in terms of rational, cost-beneficial decisions on the part of entrepreneurs within the context of a Neoclassical, transactions-based theory of the firm. Indeed, given this theoretical grounding, a charge of economic reductionism has been leveled against much accounting historical research of this genre. Critical researchers, prior to the 1990s, began to broaden the contextual expansion of their accounting history to include political, cultural, and social parameters to complement traditionally privileged economic factors [Loft, 1986; Hopwood, 1987]. However, economic rationalists would hardly concede the point that their investigations failed to transcend economic parameters.

Significant elements of the Carnegie-Napier caricature concern the traditional historian's perception of how the present impacts efforts to narrate the past. We do not believe that most accounting historians, as distinct from mainstream positivists, subscribe to the Whig theory of history; namely, that the present is the end result of progress and continuous improvement from the past and, thus, constitutes best practice. Johnson and Kaplan [1987] certainly did not in subscribing to the theory that there have been no significant managerial accounting developments in the U.S. since 1925. Strident was the charge leveled by

Miller and Napier [1993, p. 639] when they wrote of traditionalist work [Edwards, 1989; Edwards et al., 1990; Fleischman and Parker, 1990, 1991; Edwards and Boyns, 1992], "within the traditional evolutionary model, the now is always present, if only *in utero*, in the then."[3] Fleischman and Tyson [1997, pp. 93-96] argued in response that it is not realistic to think that historians can so envelop themselves in the past that contemporary biases and agendas can be precluded from intrusion upon the analysis. Moreover, by establishing linkages between past and present, the historian is able to engage the reader more fully into the reading and comprehension of the narrative.

At the other end of the spectrum, traditionalists have also been accused of "antiquarianism" for investigating episodes in accounting history perceived to be of limited importance to an audience other than themselves. This pejorative term is used more typically to describe traditionalists who opt not to become embroiled in paradigmatic posturing, a failure to answer the "so what?" question [Napier, 1989; Hopper and Armstrong, 1991; Stewart, 1992]. However, we believe that traditionalists are just as disapproving of history that fails to meet a high standard of interpretation; they are perhaps less vocal in their complaint.

Critical Historiography: The critical research project is extraordinarily broad, and its basic components were firmly established in the decade of the 1980s with a substantial grounding in philosophy. In terms of accounting history, Marxism/labor process and Foucauldianism have emerged as pervasive critical paradigms. These approaches will be discussed at length in the following section. The reader is invited to see the excellent summary article by Lodh and Gaffikin [1997] for an appreciation of the wide range of theory that underpins critical research. Traditionalists might argue that by religiously adhering to their theoretical groundings, critical scholars are themselves reductionist. Even Laughlin [1999, p. 75], an eminent critical scholar, pointed out that we must not become totally dependent upon these "giants" (Derrida, Foucault, Habermas, Marx, Adam Smith, etc.) as the sole repository for our insights, but that we add to them with revelations of our own.

The 1990s witnessed the forceful articulation of critical accounting's broad agenda that does not end with a description

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[3] Napier subsequently modified the intensity of this comment by downgrading it to a "warning against historical approaches that view the past as a shadow or simulacrum of the present" [Carnegie and Napier, 1996, p. 16].

of the world, past or present. Rather, many critical accounting researchers see a duty to change practice [Cooper, 1997, p. 15, referencing Neimark, 1990]. In this sense, an "overwhelming priority" is to deal proactively with questions of justice [Arrington, 1997, p. 13] and to act in the public interest [Bebbington et al., 1999, p. 50]. Laughlin [1999, p. 73] recently provided a good working definition of critical accounting's proactive agenda as:

> A critical understanding of the role of accounting processes and practices and the accounting profession in the functioning of society and organisations with an intention to use that understanding to engage (where appropriate) in changing these processes, practices and the profession.

In relation to history, Laughlin [1987, p. 482] argued that the past provides critical research with insights that help forge "methodological tools" to change the future. One can immediately see in these descriptions the proactive orientation of critical accounting research. While Laughlin [1999, pp. 74, 77-78] believed that the critical engagement could precipitate meaningful change, he conceded that this parameter of critical research was its weakest heretofore and wondered if it was not the case that too many of his colleagues felt their "job" was to expose injustices rather than to participate actively in seeking remedies. While it is doubtful that researchers acting alone might effect change, alliances have been forged by critical researchers in debates as contentious as coal-mine closures during the violently confrontational U.K. miners' strike in the 1980s [Cooper and Hopper, 1988] and in discussions of financial scandals [Sikka and Willmott, 1995].

Prominent in critical action is the power of accounting as an enabler, "to act as a force for radical emancipatory social change through making things visible and comprehensible and helping engender dialogue and action towards emancipatory change" [Gallhofer and Haslam, 1997, p. 82]. Part of this enabling task of accounting is to give voice to suppressed groups who historically have had no voice; including women [Kirkham and Loft, 1993], ethnic minorities [Hammond and Streeter, 1994; Gaffney et al., 1995; Annisette, 1999, 2000; Fleischman and Tyson, 2000b; Hammond, 2002], the poor, indigenous populations [Hooper and Pratt, 1995; Neu, 1999], post-colonial societies [Arnold and Hammond, 1994; Elad, 1998; Catchpowle and Cooper, 1999], and less visible participants in the accounting function itself [Cooper, 1997]. At times, it may seem that critical researchers would have themselves added to the list of the disadvantaged given their perception of "accounting's repressive tendencies" [Gallhofer and Haslam, 1997, p. 77] and the marginalization that critical researchers perceive arising out of their stance against the status quo and their advocacy of changes to the prevailing system [Baker and Bettner, 1997, p. 307]. If critical researchers are indeed marginalized, their argument is with the traditional accounting mainstream and not with traditional accounting historians whose marginalization, at least in the U.S., is every bit as severe.

We conclude this section by urging that the gulf between traditional and critical accounting historians is not as wide as some of the literature seemingly suggests. Critical research has added to traditional studies a diversity that should be "celebrated" [Fleischman et al., 1996a, b; Merino, 1998, p. 603]. We believe that many traditionalists would agree that the recontextualizing and reinterpretation of revealed archival materials is as valuable an exercise as the discovery of new ones [Merino, 1998, p. 607]. Napier [1998, p. 696] identified some common ground:

> Rather than being rivals, traditional and genealogical approaches to accounting history complement each other. However, genealogical approaches, by explicitly aiming to understand accounting in the (historical) contexts in which it operates, provide a broader basis for determining the ways in which accounting ideas and practices emerge and influence (often in subtle and indirect ways) the operations and activities of wide elements of society.

Our feeling is that this greater contextualization has been a feature of critical historical research in accounting, but that the best of traditional historiography embraces wider parameters and perspectives as well. It has also been the case that critical researchers have tended to be more combative in staking out their positions, though some traditionalists have responded strongly when under attack. One thing was for certain both during the 1990s and beyond as traditional accounting historians and critical scholars tilted at their favorite windmills. There was and continues to be a common threat – the substantial numbers of academicians and practitioners who devalue and marginalize history.

HISTORICAL PARADIGMS

Much of the investigation of the origins of accounting practices, as well as the processes of change through history, was done within the context of a number of prevailing paradigms in the 1990s. Arthur [1999, pp. 17-18] suggested that the application of paradigms to accounting reflected "a lack of confidence" in the traditional view of what for the discipline was obvious and rational. The extension to accounting history came in the 1980s as the developing body of literature critical of mainstream traditionalism embraced history as an integral component of its commentary. During the 1990s, not only did the volume of critical accounting history expand dramatically, but traditional accounting historians became engaged in theoretical dialogue. The debates in the early years of the 1990s were conducted with a fervor that some would describe as passionate and others would consider unhelpful. Notwithstanding, the late 1990s and beyond witnessed a softening of tone. Some joint venturing occurred between researchers of different paradigmatic persuasions, and several traditional historians even moved in distinctly critical directions. Critical researchers became sensitized to the need for persuasive evidence from the archive and other sources.

Since the mid-1980s and particularly in the 90s, published writing on the history of accounting generally focused attention on three major research paradigms or "worldviews." Previously, the Neoclassical or economic-rationalist perspective held sway as the historical, mainstream approach. Subsequently, as paradigmatic dialogue became more prevalent, this privileged position came under challenge from critical theorists whose voices are now forcefully heard. The schools represented here are the Marxist/labor process, from a tradition older even than Neoclassicism, and the Foucauldian, a product in the first instance of French post-modernism. Critical historiography is wider than these two, but Marxism and Foucauldianism were the most prominent during the 1990s. We are, however, mindful of potential problems inherent in categorizing research under particular paradigms, including a lack of full understanding and the attribution of one classification to studies that draw upon multiple perspectives. In this exercise, we attempt a thumbnail sketch of the basic tenets of the paradigms, as well as a statement of directions taken in the critique of each. These synopses will be kept very brief as the accounting history literature of the past 20 years has covered this material in minute detail and with great frequency.

Neoclassicism: Economic rationalism (a.k.a. Neoclassicism) is the hardest of the three paradigms to characterize because of the sheer volume of its constituency. Many traditionalists who are disinclined to become involved in paradigmatic statement are at heart economic rationalists as evidenced by descriptive narratives and/or archival investigations that conclude how accounting innovation has led to the economic betterment of a business entity, an industry, a country, or an historical epoch. Investigations of retrogressive developments rarely see light of day. Others delight in seeking the origins of contemporary accounting practice and tracing those roots through historical development. Although Foucault disavowed the search for origins, some of his leading disciples have written extensively regarding the accounting developments that accompanied the genesis of modern management [Ezzamel et al., 1990; Fleischman et al., 1995; Hoskin and Macve 1988, 1994, 1996, 2000].

The theoretical basis of Neoclassicism was established well before the 1990s as traditional explanations linked accounting developments since the 18th century to the aspirations of entrepreneurs to improve efficiency. Building on the economic history of Chandler [1977] and the economic theory of Williamson [1985], Johnson formed a bridge to accounting history. Cost accounting, he argued, developed as a rational business response to opportunities involving new technologies and markets [Johnson, 1972]. The economic-rationalist position was most prominently promoted with the publication of *Relevance Lost* [Johnson and Kaplan, 1987]. Though the conclusion that perceived efficiency gains drive accounting change is not universally accepted by scholars, it might be acknowledged, as by leading Foucauldians, that the book "moved accounting's history centre-stage" [Ezzamel et al., 1990, p. 157].

During the 90s, economic-rationalist historians mobilized in defense of the paradigm's basic assumptions. As we have seen previously, Marxist theorists in particular criticized the neutrality traditionalists find embedded in primary-source materials. Likewise, the charge of economic reductionism, whether justified or not, was addressed in recent work that attempted to broaden the parameters of historical investigation [e.g., Boyns et al., 1997; Fleischman and Parker, 1997; Williams, 1997a]. Mills [1993a, p. 802], herself a defender of Neoclassicism, has cautioned against the "economic fallacy," a "privileged position" accorded economic activities.

Foucauldianism: The disciplinary paradigm conceived by Foucault to chronicle the history of closed institutions (asylums, prisons, barracks, schools) appears in many ways to parallel the factory system and other facets of modern life in which accountancy is implicated. In the factory and in other environments mediated by managerial action, it seems that accounting techniques serve as a vehicle for the normalizing gaze required to accommodate discipline at a micro-level.

As the case with economic rationalism, several classics of Foucauldian historiography predated the 1990s and clearly established the paradigm's applicability to accounting history [Burchell et al., 1985; Hoskin and Macve, 1986]. Hoskin and Macve [1988] detailed how cost accounting at the Springfield Armory in the 1830s and 1840s provided a technique of "hierarchical surveillance" that rendered labor "calculable" and "total human accountability" achievable. Miller and O'Leary [1987] traced the history of standard costing and budgeting through the first three decades of the 20th century to show how accounting and kindred disciplines (e.g., psychology and sociology) constructed a "governable person" out of all individuals within the business enterprise. As the decade of the 90s dawned, similar studies were conducted for the British Industrial Revolution. Walsh and Stewart [1993, p. 797] documented how Robert Owen utilized a reporting structure that became "the backbone of a regime of surveillance and hierarchy," permitting the monitoring of individual workers. Foucauldians in collaborative efforts have sought but failed to find in the British Industrial Revolution the genesis of modern management, labor controls that quietly order people about [Fleischman et al., 1995; Fleischman and Tyson, 1996; see also Hoskin and Macve, 2000].

The bulk of commentary on Foucauldianism has come from Marxists who accuse Foucauldians of "symbolic reductionism," ignoring the materialist basis to reality occasioned by their pronounced emphasis on language and their failure to establish priorities in analyzing various discursive possibilities [Neimark, 1990, 1994]. It is charged that Foucauldians under-theorize material, economic, and political realities, particularly issues of resistance and material conditions. As Cooper and Tinker [1994, pp. 2-3] put it, "without theorizing these features, researchers cannot articulate effective action to change regimes of power." Armstrong [1994] found that the Foucauldian paradigm did not fit the pattern of worker resistance to disciplinary regimes and charged that Foucault presented a monolithic view of power as one common to all disciplinary regimes that served universally to enhance human capacities.

Traditional historians of a Neoclassical persuasion have joined the critique of Foucauldian work. Tyson [1990, 1993] recast into economic-rationalist behavior the "transforming events" of the historical discontinuity that Hoskin and Macve found at the Springfield Armory [Tyson, 1993, p. 7]. Similarly, economic rationalists are critical of the Foucauldian emphasis on labor control to enhance efficiency as the sole preoccupation of management [Tyson, 1993, 2000; Edwards et al., 1995; Boyns and Edwards, 1996b, 1997, 2000].

Marxism/Labor Process: Contemporary Marxist accounting historians, though not having lost contact with a Marxist view of class conflict, have moved away from an older economic reductionism into a broader investigation of the social, cultural, and political underpinnings that define industrial relations. As we have seen previously, Marxist scholars have looked to communicate to academics the partisan nature of accounting records and methodologies through which accounting practices can be deployed to suppress classes of people. Bryer [1994a, 1999a] investigated subjects as diverse as feudalism and the FASB's conceptual framework, all from a Marxist perspective. Hopper and Armstrong [1991] reinterpreted early American industrialization, formerly studied by economic rationalists Johnson and Chandler. Committed to an historical hypothesis that social and economic conflicts arising from labor-control practices give rise to new techniques, they demonstrated how cost accounting came of age to accomplish labor intensification. Historians of all theoretical persuasions might appreciate the intensely detailed analysis and the erudition of the narrative represented by these works, but, at the same time, question a references list comprised entirely of secondary sources.

The Marxist paradigm has come under significant attack, not so much from Neoclassicism, but from Foucauldians, kindred spirits in critical scholarship. Foucault himself criticized Marxism for its positivism and conviction that its perspective dominated various conflicting interpretations of meaning. Marx's scientific approach, according to Foucault, allowed its adherents "to escape the figurality of language" and to advance definitive posturing where "no single order of validating method" should hold sway [Norris, 1991, pp. 86-87]. Cooper [1997, pp. 21, 25] complained how Marxism has become marginalized in post-modernism with Lyotard's [1984] invective against the "grand narrative" and post-modernism's emphasis upon pluralism and difference rather than enduring class interests. Arnold [1998, p. 666], in defense, pointed out how much critical theory has to lose if the abandonment of historical materialism leads to an inability or a disinterest in critiquing capitalism.

Synthesis?: The prevalence of paradigmatic accounting historiography in the 90s has precipitated discomfort in certain quarters. Tyson [1993, p. 13] was concerned that writing history from a "doctrinaire perspective" causes the historian to lose objectivity by way of seeking out only confirming evidence. Funnell [1996a, p. 41] argued that no single research paradigm could serve as the "repository of enlightenment" in explaining all historical events or time periods. An anonymous reviewer, drawing upon recollections of Kuhn, pointed out to us that a fuller examination of the paradigms under review mandates consideration of where they "coincide, overlap or are disjoint." To this purpose, it might be observed that the utilization of the power/knowledge that accounting brings to bear on labor discipline or the deployment of accounting methods by entrepreneurs to exploit labor for the purpose of generating surplus value within a capitalist framework may be construed as economically rational actions. Consequently, the paradigms may to a considerable degree be interrelated, and the elements that have given birth to scholarly discourse (labor discipline, economic class conflict, economically rational behavior) may reflect divergent emphases within the same overarching paradigm.

The hope has been expressed by traditional and critical researchers alike that the gulf between and among the various paradigms is not so wide that dialogue, minimally, and perhaps joint venturing can take place [Merino and Mayper, 1993; Fleischman et al., 1996a; Funnell, 1996a, 1998c; Merino, 1998]. This paper echoes these pleas for conciliation and mutual respect. Research had already begun in the 90s in hopes that differing viewpoints can contribute additively and synergistically to enhance our knowledge of important events in accounting's history [Fleischman et al., 1995; Fleischman, 2000; Fleischman and Macve, 2002]. We underscore the recommendation also espoused in the 90s that accounting historians overtly disclose to their readers their paradigmatic predispositions [Fleischman and Tyson, 1997; Merino, 1998].

NEW AND OLD ACCOUNTING HISTORY

At the beginning of the decade, Miller et al. [1991] introduced the term "new accounting history" into debate. In an essay scarcely eight pages in length, the authors, all representatives of critical-research paradigms, summarized in a welcoming and democratic fashion certain of the central themes that were to characterize accounting historiography in the 90s. Their message was less combative, perhaps because the olive branch was being extended to accounting historians rather than to mainstream traditionalists. Several of the tenets central to this "new accounting history" were issues with which scholars who had just been relegated to "old" accounting historians could readily identify. These included a "pluralization" and "proliferation" of methodologies [p. 395], accompanied by a promise of the inappropriateness "to specify criteria that would exclude certain types of research on the basis of methodological protocols" [p. 400]. Also, historians of all persuasions were invited to take up a "heterogeneous range of issues" [p. 396] and a "heterogeneous range of theoretical approaches" [p. 400]. A bit more controversial, but not in any way threatening to Neoclassicists, was the questioning of "received notions" from the old accounting history, such as the progressive and evolutionary nature of history [p. 395] and the traditional mandate to record historical events as they really happened [p. 396]. Also challenged was the older tradition's view of the "objectivity question" – that facts are "unitary rather than perspectival" and that history and values are rigidly dichotomized [p. 397]. Finally, the new accounting history claimed to recognize the limitations of primary sources, including problems of interpretation, authenticity, and completeness [p. 400], not to mention the suppressed voices previously discussed. If this breadth of vision was a critical preserve at the beginning of the decade, it is without question the case that many traditionalists bought into these values by the end.

This testament of faith in a "new accounting history" paralleled a similar development in the larger discipline of history itself that predated the 1990s. Gaffikin [1998, pp. 633-635] noted corresponding directions of the "new" history – an expansion of focus beyond the political history traditionally privileged; analysis of structures rather than narration of events; concern with the histories of the disadvantaged rather than the elite; a movement away from dependence upon official, written records; a greater awareness of movements rather than single events; a questioning of objectivity in favor of a variety of opposing viewpoints; and an appreciation for the historical input of non-professional historians.

Carnegie and Napier [1996, p. 8], in attempting a balanced view, also provided a caricature of the new accounting historian in contrast to the traditionalist previously discussed. Traits here included an historian who writes to a paradigm, is willing to deploy speculation in lieu of hard evidence, and fills most of his/her published pages with "obscure theorization," with varying degrees of eloquence. Although overstated, these points distinguish an old school that is more inclined to see historical evidence as representing some sort of an historical reality that must be respected. While many "old" accounting historians do subscribe to the economic-rationalist paradigm and are willing to debate issues with critical researchers, others, content to bring new information to light either with or without accompanying evaluation, do not choose to become involved in direct paradigmatic statement. As Napier [1989] suggested, these efforts have a role even for critical theorists given the importance of such "discovery" phase work in providing grist for the "contextualising" mills, lest the same articles be continuously rewritten.

There are a number of substantial philosophical differences that separate old and new historians. Whereas the old attempts to make the past understandable, new narratives try to make "the familiar, strange" [Funnell, 1998c, p. 144; Merino, 1998, p. 606]. Old accounting historians privilege the written archive of the past [Chua, 1998, p. 619], while the new are wary of primary sources, in part because of the silenced voices, and suggest an expanded view of what can constitute archival evidence [Carnegie and Napier, 1996, p. 8; Chua, 1998, p. 618]. The new accounting history provides new forms of historical discourse and different lenses for viewing the past [Gaffikin, 1998, p. 632].

Debates between old and new historians in the 90s focused on some of these issues. A mutual distrust over the role and interpretation of evidence was featured in archival research into the Springfield Armory and the New England textiles industry by Hoskin and Macve [1988, 1994, 1996, 2000], on the one hand, and by Tyson [1990, 1992, 1993, 1998, 2000; see also Funnell, 1998c], on the other. Disagreements over the relationship between past and present informed an exchange between Miller and Napier [1993] and Fleischman and Tyson [1997; see also Funnell, 1996a]. As Carnegie and Napier [1996, p. 14] observed, some researchers on both sides were more tolerant; some less so.

Theoretical disputes notwithstanding, the gulf separating new and old accounting historians seemed more easily bridged than the divide between traditional and critical researchers. Funnell [1996a, p. 41, 1998c, p. 153] made two points in this regard. First, neither side is itself homogeneous so that discourse tends not to be so doctrinaire. Second, both new and old historians, even the most radical post-modernist, use the narrative form as a primary tool. Chua [1998, p. 620] observed that the "core difference" between the two schools is not large and that both share a "collective fear of dogma, of being duped or gagged, and of the pernicious exercise of despotic authority," particularly by other academics. She shares the perception of Merino and Funnell that substantial differences do not exist [Chua, 1998, p. 617]. Funnell [1998c, p. 157] agreed with Fleischman et al. [1996a] that traditional, economic-rationalist historians could claim "new" history status with a widening of perspectives and perhaps a more questioning view of historical objectivity and facticity. By contrast, many traditionalists could not aspire to be critical researchers, not so much because a traditionalist cannot be critical of capitalism or the status quo, but because the proactive component to amend the system, either through regulation or radical change, would in most cases be lacking.[4]

THE HISTORICAL PANORAMA

Major Projects: During the 1990s, a number of accounting historians undertook major projects that resulted in a string of articles and books in which their research results were presented. Many of these major endeavors were done with reference to archival materials, a significant development of the decade. Contributing factors here included increased publishing outlets, the opening of archives previously not catalogued (e.g., the Wedgwood papers), and the use of the internet for facilitating research access, literature searches, collaboration at a distance, and other activity.

An example of one topic that was the center of attention for numerous major projects was the concerted effort to backdate the chronology for sophisticated cost/managerial accounting to

[4] We are indebted to a reviewer who referred us to Burrell and Morgan [1979] who dichotomized paradigms into those imbued with a "sociology of regulation" and those subscribing to a "sociology of radical change." Our feeling is that critical scholars could potentially embrace either of these classifications.

periods earlier than Taylor and the advent of scientific management. Boyns and Edwards, Fleischman and Parker, and Williams made the case for the British Industrial Revolution; Hoskin and Macve and Tyson opted for the early 19th century U.S., but debated whether the venue was the Springfield Armory or the New England textile industry.

Appendix A is a listing of "major projects" we were able to identify from a limited number of sources mentioned below for the 1990s. A minimum of three articles or books was arbitrarily determined to constitute a major project. The columns of authors and their topics are somewhat self-explanatory; the references column is highly abbreviated but should serve as an adequate guide to fuller citations that appear in the paper's extensive bibliography. We do wish to make the following disclaimers regarding the listing:

1) The 1990s are defined as spanning the eleven years from 1990-2000. The extra year is included to avoid disputes as to when the decade/century/millennium actually concluded.
2) In some cases, the referenced publications do not constitute an author's most valuable contributions to the accounting history literature. For example, Warwick Funnell wrote numerous articles about public auditing in Australia and the U.K., but, from our perspective, his historiographic pieces on narrative and counter-narrative [Funnell, 1996a, 1998c] and his exposé of accountants' complicity in the Holocaust [Funnell, 1998a] are far more provocative. Similarly, the historical output of many prolific authors far transcended the relatively small number of articles grouped around the topics identified in Appendix A (e.g., Chua, Covaleski and Dirsmith, Fogarty, Neu, and both Parkers).
3) We are sensitive to the fact that the major projects identified in Appendix A are far more likely to omit the work of critical scholars than traditional historians. This tendency is explained by the fact that critical researchers concentrate more extensively on current issues and inform their arguments by recourse to the historical antecedents. Prolific authors who fall into the category described above include the Coopers (both Christine and David), Dillard, Robson, Sikka, and Tinker.
4) We have selected articles for inclusion that relate to themes that appear to us to be the most prominent during the 1990s. We also concentrated heavily on those

journals most closely linked with accounting history (*Abacus, AAAJ, ABFH, ABR, AH, AHJ, AOS, BAR, CPA*), augmented by the Garland series.

We are very aware that these reservations and disclaimers diminish the possibilities for a full disclosure of accounting history's progress in the 1990s. Many accomplished accounting historians and many significant scholarly contributions to the discipline go unmentioned in this survey. We regret the limitations imposed by space and by our own imperfect knowledge of the field. We apologize for any omissions and beg forgiveness.

Major Topics: Appendix A furnishes clues as to most of the issues that occupied accounting historians during the 1990s. For example, no fewer than seven of the major projects identified, those of Bryer, Chua, Fleischman, Merino, Mouck, Napier, L.D. Parker, and Previts, focused on historiography. Similarly, all the discursive exchanges mentioned in the section on "debates" (see below) centered either on historiographic or methodological issues. Additionally, other important historiographic articles appeared, authored by Duke and Coffman [1993], Mattessich [1992, 1995], and Oldroyd [1999a].

Six of the major projects surrounded the professionalization processes in various countries – Lee, Shackleton, and Walker for U.K. accounting with particular emphasis on Scottish developments; Carnegie and R.H. Parker and Poullaos and Chua for Australia; and McMillan for the U.S. Other historical studies of the professionalization of accounting in the English-speaking world include, for Britain and her empire: Briston and Kedslie [1997], Kedslie [1990] and Maltby [1999b]; for Australia: Allen [1991]; for Canada: Neu and Saleem [1996]; for New Zealand: Hooper et al. [1993]; and for the U.S.: Cross [1998], Preston et al. [1995] and Romeo and Kyj [1998]. The development of the accounting profession in other parts of the world had not made much impact on the English-language journals heretofore which is why *AAAJ*'s special issue on Asian professional development (Vol. 12, No. 3) was a particularly significant contribution. However, studies of non-English-speaking societies were increasingly finding their way into English-language literature even if the focus during the decade was more on industrial accounting and financial theory than professional development. Six major projects listed in Appendix A (those of Carmona et al., Graves, Lemarchand, Mattessich, Nikitin, and Scorgie) are representative of this trend.

Biography was another prominent research area of the

1990s with major projects by Carnegie & R.H. Parker, R.H. Parker, and Scorgie being representative. *ABFH* and *AHJ* were the journals of most frequent placement for biographical studies with eight and 11 articles respectively during the decade. We mention here only the two historians with multiple placements in these journals – Previts for his studies of Samuel Broad [Previts and Robinson, 1996] and Paul Garner [Previts and Samson, 1997] and Heier for his biographies of John Colt and Albert Fink [Heier, 1993, 2000].

We conclude this sub-section by mentioning two other topics, one archival and one methodological, which received significant attention during the 1990s and have become even more prominent beyond. The archival project is railroad accounting, currently under investigation by McCartney and Arnold in the U.K. and Flesher, Previts, and Samson in the U.S. Two articles appeared at the end of the decade that augur for many more to follow in the near future [McCartney and Arnold, 2000; Previts and Samson, 2000]. Oral history methodology has also been used widely as a research tool and can be seen in work by Baskerville [1999], Burrows [1999], Collins and Bloom [1991], Hammond and Sikka [1996], Matthews [2000], L.D. Parker [1994], and Tyson [1996]. Hammond and Sikka [1996, p. 79], in urging oral history as a mechanism to give voice to suppressed groups, warned us that, "traditional historians elide the complexity of accounting change and ignore the impact on and the contribution of ordinary people's struggles in checking, advancing, facilitating and resisting accounting developments."

Special Issues: During the 1990s, a number of journals under our review featured special issues on accounting history or on contemporary issues with long historical pasts. Three accounting history anthologies are particularly noteworthy because their introductory articles have had significant impact on the discipline for diverging reasons. An *AOS* special issue (Vol. 16, No. 5/6, 1991) was the location for the welcoming article of Miller et al. [1991] in which the phrase "new accounting history" was coined. Another *AOS* special issue in 1993 (Vol. 18, No. 7/8) featured more combative work as Miller and Napier [1993], in promoting a genealogical approach to accounting history, presented what was seen as a harsh critique of traditional historians, and one that brought acrimonious response. Christopher Napier co-edited and introduced a 1996 *AAAJ* collection (Vol. 9, No. 3, 1996). Carnegie and Napier [1996] presented a balanced view of the strengths and weaknesses of critical and traditional history. A *CPA* special issue (Vol. 9, No. 6, 1996), billed "critical accounting history," will be discussed subsequently in the "debates" section.

A number of special issues gave voice to those suppressed groups so integral a part of the critical agenda. Two 1992 editions of journals – *AOS* (Vol. 17, No. 3/4) and *AAAJ* (Vol. 5, No. 3) – devoted issues to feminist perspectives and gender studies. The most prolific scholars in this vital critical focus were represented here – Ciancanelli, Cooper, Hammond and Oakes, Hines, Hooks, Kirkham, Lehman, Loft. A rapidly emerging area for critical historical study was the use of accounting to contribute to the subjugation of indigenous peoples. The *AAAJ* special issue on this subject (Vol. 13, No. 3, 2000) included articles by some of the leading scholars in the field (e.g., Davie, Gallhofer, and Neu).

Other special issues with particular reference to accounting history included the *AH* issue on regulation (Vol. 3, No. 1, 1998); an *ABFH* number on the history of accounting professionalization (Vol. 9, No. 1, 1999); the *AAAJ* edition (Vol. 13, No. 4, 2000) on accounting in the home; the memorial *Abacus* issue (Vol. 36, No. 3, 2000) dedicated to the late R.J. Chambers; the *AH* number on accounting in crises (Vol. 5, No. 2, 2000); and the *ABFH* edition (Vol. 10, No. 2, 2000) on U.S. historiography. The most significant of the special issues that pointed the way to the 21st century may be those that featured historical studies in non-Anglo-Saxon countries. Several of those that appeared in the 1990s were an *ABFH* issue on French accounting history (Vol. 7, No. 3, 1997) and two *AAAJ* numbers on Japan (Vol. 3, No. 2, 1990) and Asian accounting professional development (Vol. 12, No. 3, 1999) respectively.

The Debates: An intriguing feature of the journal literature of the 90s was the prevalence of historiographic debates among adherents of the major paradigmatic schools described above. Perhaps the most compelling was the special issue of *CPA* (Vol. 5, No. 1, 1994) on Marx vs. Foucault. The issues were set by the journal's editors [Cooper and Tinker, 1994] and then debated skillfully by Hoskin [1994] and Grey [1994] for the Foucauldians and Neimark [1994] and Armstrong [1994] for the Marxists. A more focused discourse appeared in *CPA* (Vol. 10, No. 5, 1999) when Bryer [1999a, b] articulated a Marxist critique of the FASB's conceptual framework. Commentaries on Bryer's perspective were forthcoming from Macve [1999]. Robson [1999], Samuelson [1999], and Whittington [1999], culminating in that of fellow Marxist Tony Tinker [1999] who accused Bryer of misinterpreting the paradigm's philosophical father.

Traditional accounting historians have likewise become engaged in discourse with critical scholars. Keenan's [1998a, b] rebuttal to Miller and Napier [1993] became the focal point of a special *CPA* issue on critical accounting history (Vol. 9, No. 6, 1998) wherein Keenan alone defended traditional history as he saw it against advocates of the more genealogical approach advocated in Miller and Napier [Bryer, 1998b; Napier, 1998]. The issue included articles by Chua, Gaffikin, Merino, and Poullaos that seemingly urged a reconciliation of interests.

An earlier discussion in *AOS* (Vol. 16, No. 3, 1991) pitted the late and very influential David Solomons against the most prolific U.S.-based Marxist of the past two decades, Tony Tinker. The subject was "accounting and social change: neutralists or partisans." Bryer's [1993a] articles reignited an older debate about capitalism and the origins of double-entry bookkeeping that originally had seen Yamey [1947] critique the Sombart thesis. Yamey's position was now taken up by Macve [1996] and Edwards [1996] at the 1994 Pacioli Festival sponsored by the Institute of Chartered Accountants of Scotland. A methodological debate appeared in *AAAJ* (Vol. 9, No. 4, 1996) as Humphrey and Scapens' [1996a, b] defense of the potential for the case-study method's role in the development of accounting theory was questioned by Young and Preston [1996] and Llewellyn [1996]. Another prominent exchange focused on the literature about U.K. company reporting regulation in the 19th century, centering on the work of A.V. Dicey [1914]. The debate featured Jones and Aiken [Jones and Aiken, 1995; Jones, 1999] in dialogue with Walker [1996] and Maltby [1998, 1999a]. Finally, as previously discussed, there was the decade-long debate over the origins of cost accounting and managerialism in America and Britain that culminated in an exchange of views in *AHJ* (Vol. 27, No. 1, 2000) between Hoskin and Macve [2000] for Foucauldianism and Boyns and Edwards [2000] and Tyson [2000] for economic rationalism.

CONCLUDING REMARKS AND A CAUTIONARY WORD

The nineties proved to be a highly productive time for scholarship in accounting history. It was a time marked by a profusion of outlets, a considerable volume of work, and great debates. It was indeed the roaring nineties. Scholarship in accounting history deepened and broadened our understanding of accounting. Historical work flourished under a variety of banners, with notable contributions from those labeled old and new, critical and traditional, with considerable breadth and dexterity demonstrated throughout. Achievements were made in a body of work that brought a wave of bold new avenues of inquiry, fresh empirics, and new insights to the discipline. New work fleshed out our understanding of the role of accounting in facilitating social action. Original scholarship in a wide array of empirical settings brought new insights into matters as diverse as old-world studies of tobacco production in Spain [Carmona et al., 1997, 1998] to the accounting that accompanied the new-world exploration of the Hudson's Bay Company (Spraakman and his coauthors). Substantial studies of contributors to accounting thought broadened the discipline's achievements [e.g., Zeff, 2000]. There was progress in a real sense in advancing knowledge throughout the decade.

As the decade closed, there were signs of rapprochement between various groups, thereby refining work, altering lines of inquiry, and choosing empirical ground mindful of its potential contribution to discussion. The confrontational energy of earlier debates had ebbed by the decade's end, for better or worse, and in its place there seemed to be at least a mutual awareness of approach.

While lauding the substantive development of accounting history as a discipline, in looking to the future it is reasonable to ask if the conditions for continuation of the resurgence in accounting history are still present or whether what lies ahead will be different from the successes of the previous decade. While the intellectual advancement of the field during the 1990s has been notable, the future capacity of accounting history to make similar advances will be driven not just by the accomplishments of the current body of work but by the material conditions for the conduct of historical research. Crucially, the field's prospects in the U.S. seem to be diverging from the promising conditions seen in much of the rest of the world. Accounting historians as a whole have yet to appreciate the important contextual differences now seen in the U.S. academic environment. In particular, the field has yet to see the full ramifications either of institutional discrimination against accounting history or of the pronounced demographic changes facing American colleagues. Beyond this, the organizational field of accounting history has brought a decoupling between accounting history and the main U.S. academic accounting body, the American Accounting Association (AAA). We discuss each of these issues in turn, but note now that conditions in the U.S. are significant for researchers worldwide, not only because history is threatened in one jurisdiction but because that jurisdiction has proved to be an influential model in both the practice and the study of accounting.

Accounting history's exclusion from the major U.S. journals is an area in which traditional and critical researchers have a common experience. This exclusion causes particular pain to traditional researchers, some of whose careers were credentialed in important respects by early publication in the *Accounting Review*. It may be difficult for colleagues elsewhere to appreciate the full institutional significance and legitimacy that publication in the AAA's longest standing, official journal represents in North America.[5] The ramifications of accounting history's seeming exclusion from such outlets have yet to be fully played out, but already most elements can be seen. The small group of accounting historians now seeking a career in the U.S. is unlikely ever to match the institutional positions or career success of their forbearers. In important respects, the future of accounting history has been mapped out in the U.S., and it is one that stands to be considerably smaller, less prestigious, and less influential than in the past. On their retirement over the next decade, American accounting historians will in the main be replaced by adherents of prevailing econometric paradigms, an implicit sign of the roadblocks impeding the transfer of their work to a new generation.

While the demographics of the professoriate suggest broad failure in renewing itself across disciplines, this trend has been particularly acute in accounting history in the U.S. where it will collide with the impending retirement of many currently active American historians. The reasons for this failure of renewal are complex, but one element is a seeming lack of confidence of U.S. historians in their own work, or at least in transferring it to a new crop of academics. Even at American institutions whose leading faculty are accounting historians, it has long been very difficult to secure doctoral training in which accounting history would be the core of scholarship. Instead, history is seen as a kind of hobbyist's work, something undertaken only when the obligatory rites of passage in other traditions have been

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[5] We are grateful to a reviewer who has pointed out to us that a great danger lurks as far as non-American scholars considering historical research are concerned. In countries where governmental funding is dependent upon an external assessment of research quality, the biases of these flagship journals could deter historical investigations.

performed. It is apparent that econometric work faces none of these problems, even as the furor of Enron brings the greatest state intervention in markets since the Great Depression, the ideological certainties of laissez-faire are upended, and accounting history seems needed more than ever in understanding American institutions.

The Academy of Accounting Historians, committed to the internationalism of its discipline, has chosen not to become a section of the AAA. One meaningful benefit of this decision has been to keep membership costs low for international scholars for whom AAA membership would often have little relevance. With the advent of the AAA's increased emphasis on a decentralized organizational structure that stresses its sections, there have been unintended consequences of this approach. Lacking formal standing within the association, accounting historians have come to rely on the good will of member sections, a situation which gives us marginal presence at national meetings and little voice in its institutional governance.[6]

At the start of the nineties, accounting history was strong in the U.S. and enjoyed great success there. At the close of the decade, by contrast, the Academy was facing a precipitous decline in American membership. In important respects, this decline is specific to the U.S. in that elsewhere, there is a profusion of work in accounting history and of vehicles for the presentation and publication of results. Europe presents a large and growing crop of talented new scholars. Australia, Canada, and New Zealand similarly see bright, young academics turning to the empirics of home with a mind to speak to issues of intellectual concern at large. There is likewise an upsurge of young Japanese accounting historians.

U.S. historians might find a brighter future in having a surer sense of self, being unapologetically who they are, and forging ahead with the recruitment and training of successors while there is still time. A first step is an acknowledgment that efforts at assimilation with the prevailing orthodoxy have borne little fruit and that it is time to claim a place at the institutional table for accounting history in its own right. It is still possible to alter course and to create a more promising future. While our

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[6] Several sessions at the 2004 AAA national convention in Orlando were designated for history papers, representing the first time in several years that history papers have not been required to go through member sections to achieve a platform for presentation. It is hoped that this development will augur a new era of cooperation between the AAA and the Academy of Accounting Historians.

review indicates it was indeed the roaring nineties for accounting history, the decade may eventually be seen as the start of an explosion of work in the world at large. It is our hope that it will not also be regarded as ending with the quiet but discernable death of accounting history in the U.S. Join us in a decade's time for the sequel.

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APPENDIX A

Major Projects in Accounting History (1990-2000)

Author(s)	Topical Area	Citations*
Aiken, M. & Lu, W.	Chinese accounting	AL 93a,b,c,98
Amernic, J.H. & Craig, R.J.	Accounting rhetoric	A96;AC92,00a,b;Clarke,C,&A99
Boyns, T., Edwards, J.R., & Anderson, M.	British cost accounting	B93;BE96a,b,97;EBA95; BAE96;B,E,&Nikitin97; Matthews,AE98
Bryer, R.A.	Marxist historiography	B91,93a,b,94a,b,95,98a,b, 99a,b,00a,b
Buckmaster, D.A.	Income smoothing	B92,97,01
Carmona S., Ezzamel, M.A. & Gutierrez, F.	Royal Tobacco Factory (Spain)	CEG97,98,02
Carnegie, G. D.	Australian pastoral accounting	G93a,95,97
Carnegie, G. D.& Parker, R.H.	Early Australian accounting	C93b,CP94,96,99;C &Varker95;C,P,&Wigg00
Chandler, R.A. & Edwards, J.R.	British auditing history	C97a,b;CE94a,b,96;C,E, &Anderson93
Chua, W.-F.	Historiography	C96,98;C&Degeling93
Coombs, H.M. & Edwards, J.R.	UK municipal accounting	CE93,94,96;C,E,&Greener97
Edwards, J.R., Anderson, M., & Matthews, D.	British financial accounting	E91,92;AEM96;EAM97
Fleischman, R.K.	Historiography	F00;F,Kalbers,&Parker96; F,Mills,&Tyson96;F&Tyson97
Fleischman, R.K. & Parker, L.D.	British Industrial Revolution	FP90,91,92,97
Fleischman, R.K. & Tyson, T.N.	US cost accounting history	FT96,98,99,00a
Flesher, D.L.	US South accounting	Schmelzle&F91;Barney&F94; McCoy&F98
Fogarty, T.J.	US standard setting	F92,98;F,Ketz,&Hussein92; F,Hussein,&Ketz94
Funnell, W.N.	Governmental auditing	F90,94,96b,97,98b
Gallhofer, S. & Haslam, J.	Bentham in accounting history	GH94a,b,96
Graves, O.F.	German accounting history	G91,92;G,Dean,&Clarke89
Gwilliam, D.R. & Macve, R.H.	Insurance and Lloyd's	MG93;Horton&M93;G,M, &Meeks00
Hammond, T.D.	African-American accountants	H97b,02;H&Streeter97
Hammond, T.D.	Gender issues	H97a,c;H&Oakes92; H&Preston92
Hooper, K.S., Pratt, M.J., & Kearins, K.N.	New Zealand indigenous people and accounting	HPK93;HP93,95;HK97
Hoskin,K.W. & Macve, R.H.	US cost accounting history	HM90,94,96,00
Jones, M.J.	Accounting at Oxford	J91,92,94a,b
Jones, S. & Aiken, M.E.	UK Companies Acts	JA94,95,99;J95,97,99
Kirkham, L.M & Loft, A.	Gender issues	K92,97;L92;K&L93
Lee, T.A.	Professionalization (Scotland)	L95a,96,97b,00;Walker&L99
Lee, T.A.	Controlling accounting research	L95b,97a,98;L&Williams99

Author(s)	Topical Area	Citations*
Lemarchand, Y.	French industrial accounting	L93,94,99;L&Parker96
Llewellyn, S. & Walker, S.P.	Domestic accounting	W98a;LW00a,b;WL00
Maltby, J.	British auditing	M98,99a,b,00a,b; Bowden&M98
Mattessich, R.V.	Near Eastern/Indian accounting	M94,98a,b,c
McKinstry, S.	UK industrial accounting	M93,96,99;Fleming,M, &Wallace00
McMillan, K.P.	Early US professionalization	M98a,b,99
McSweeney, B.	Accounting ambiguity	M97,00;M&Duncan98
McWatters, C.S.	Canadian accounting history	M93,95,98
Merino, B.D.	Historiography	M93,98;M&Mayper93
Michael, R.R.	Quincy Mining Company	M94,96;M&Nelson98
Mills, P.A.	Accounting and the law	M90,93b,94;M&Harmon94; M&Young99
Mouck, T.	Accounting theory	M92,93,94,95a,b,98,00
Napier, C.J.	Historiography	N96,98;Miller&N93; Carnegie&N96
Neu, D.	Canadian indigenous people and governance	N99,00a,b
Nikitin, M.	French industrial accounting	N90,96; Boyns,Edwards,&N97
Oakes, L.S., Covaleski, M.A., & Dirsmith, M.W.	Labor-management relations	OC94;C,D,&Samuel95;OCD99
Oldroyd, D.	Pre-modern accounting	O95,97,98
Oldroyd, D.	British coal-mining history	O96,99;Fleischman&O01; Brackenborough,McLean, &O01
Parker, L.D.	Historiography	P97,99;Fleischman,Kalbers, &P96;P&Roffey97;Guthrie,P, &Gray98
Parker, R.H.	Biographical studies	P96,97;Carnegie&P96; Carnegie,P,&Wigg00
Poullaos, C. & Chua, W.-F.	Australian professionalization	P93,94;CP93,98
Preston, A.M.	Hospital accounting	P92;P,Cooper,&Coombs92; P,Chua,&Neu97
Previts, G.J.	Historiography	P,Parker,&Coffman90a,b; P&Robinson96
Radcliffe, V.S.	Governmental auditing	R97,98,99;R,Cooper, &Robson94
Richardson, A.J.	Canadian accounting history	R97,00;Lew&R92
Scorgie, M.E.	India/China accounting history	S90;S&Nandy92;Reiss,S, &Rowe96;S&Ji96
Scorgie, M.E.	Biographical studies	S93,95;S&Joiner95
Shackleton, J.K.	British professionalization	S95,99;S&Walker98; Walker&S95,98
Spraakman, G.P.	Hudson's Bay Company	S99,Roy&S96;S&Davidson98; S&Wilkie00
Toms, J.S.	Lancashire cotton industry	T94,98;Higgins&T97
Tyson, T.N.	US industrial accounting	T90,92,93,95,97,98
Vent, G.A. & Milne, R.A.	Mining accounting	VM97,00;V&Birk93
Vollmers, G.L.	US industrial accounting	V93,96,99

Author(s)	Topical Area	Citations*
Walker, S.P.	British professionalization	W91,93,95,96a,98b,00
Walker, S.P. & Mitchell, F.	British printing industry	WM96,97,98
Williams, R.	British Industrial Revolution	W97a,b,99a,b
Wootton, C.W.	US public accounting	W&Olson91;W&Wolk92; W&Tonge93;W&Kemmerer00
Young, J.J.	US standard setting	Y94,96;Y&Mouck96
Zeff, S.A.	US financial accounting	Z98,99,00a,b

* The methodology of the "Citations" column is as follows: the capital letters that appear there refer back to the names in the "Author(s)" column. Additional coauthors on works in the "Topical Area" are mentioned by name. Hence, Aiken and Lu wrote three articles about Chinese accounting in 1993 and one in 1998. Amernic wrote a sole-authored article about accounting rhetoric in 1996; Armenic and Craig wrote an article on the topic in 1992 and two others in 2000; Clarke, Craig, and Armenic jointly published an article in 1999. Full citations to all of these may be found in the references list.

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COST AND MANAGEMENT ACCOUNTING IN PRE–INDUSTRIAL REVOLUTION SPAIN

Abstract: In traditional Anglo-Saxon accounting historiography the birth of sophisticated management accounting practices was dated at the end of the 19th century [Jonhson and Kaplan, 1987]. However, some more recent investigations have questioned this idea and demonstrate the existence of sophisticated management accounting and control techniques before the industrial revolution in differing contexts such as the United Kingdom, the United States and Spain. Fleischman and Parker [1991] have demonstrated that these practices were present in a significant number of British companies. However, evidence for Spain is based on isolated case studies. While case studies are essential to explain how these techniques were used, there has been no research to assess their frequency in Spain before the industrial revolution. By examining files concerning 13 large and medium-sized 18th century Spanish companies, this paper corroborates Fleischman and Parker's [1991] thesis. It reveals that knowledge of sophisticated cost accounting methods was fairly widespread in Spain during the 18th century. Interestingly, however, the knowledge and use of these techniques were not connected to economic success and to the industrial revolution, as was the case in the United Kingdom.

INTRODUCTION

Management accounting historiography traditionally sustained the thesis that most of the costing techniques used before the late 19th century were very rudimentary [see Fleischman

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and Tyson, 1993; Loft, 1995].[1] According to Chandler, modern cost accounting emerged in the U.S.A. after 1850 with the advent of the railroads and large companies' needs for sophisticated administration and coordination [see Johnson, 1972]. Pollard [1965] arrived at a similar conclusion in the British context and argued that the development of cost accounting to support management was not among the achievements of the British industrial revolution. His explanation was based on the high profits the early companies in the industrial revolution achieved (which rendered cost accounting unnecessary), and on the lack of integration between cost and financial accounting.

The majority of the early Anglo-Saxon studies that dated the advent of modern cost accounting to the late 19th century were not based on the examination of business archives which might reveal accounting practices in real settings. Rather, this conclusion was based on the lack of references to costing techniques in accounting manuals (primarily directed to merchants) before the 19th century [Johnson, 1972; Fleischman and Tyson, 1993; Fleischman and Parker, 1997]. This argument was also made in non-Anglo-Saxon countries. For example, in his examination of the history and doctrines of European accounting, Vlaemminck [1956] contended that industrial accounting attracted the attention of accounting authors only from the beginning of the 19th century and that practice preceded accounting treaties.[2]

In recent decades some accounting historians have tested traditional assumptions about the use of cost techniques by investigating surviving business records [Johnson, 1972; Fleischman and Parker, 1990, 1991; Edwards and Newell, 1991; Fleischman et al., 1996; Fleischman and Tyson, 1993, 1996]. However, until very recently, the extensive study of early cost accounting practices through the examination of surviving business archives in the U.K. and U.S. has not been matched by studies in continental Europe.

The reasons for this are difficult to fathom. Admittedly, the British industrial revolution was unique and associated with particular socio-political changes [Wilward and Saul, 1973].

[1] For the purpose of this paper, we do not make any distinction between terms such as 'costing', 'cost accounting', 'management accounting', or 'managerial accounting'. We use these terms interchangeably to refer to the use of cost-based information for various purposes. The use of any of these terms does not imply *per se* any commitment to a particular theoretical framework.

[2] Vlaemminck [1956] and Boyns et al. [1997] mention some French authors who wrote on industrial accounting early in the 19th century.

Arguably, the introduction of sophisticated costing techniques by British entrepreneurs during the industrialization could have resulted from other significant economic advances [Fleischman and Parker, 1991]. But continental European manufactures reached a comparable level of complexity and technological innovation [Herr, 1958; Townsend, 1791]. Wilward and Saul [1973] argue that transformations in Europe were caused by external events, by the unbalancing of political power brought about by increasing productive capacity in Britain. Concerns about the distribution of power led continental governments to become variously involved in manufactures, whereas the British industrial revolution was based on entrepreneurship. These facts would fit with a notion of cost management developed by entrepreneurs to face competitive markets and tight profit margins [Fleischman and Parker, 1991]. However, there is increasing evidence – especially for Spain – of the early use of sophisticated costing techniques in organizations operating in non-competitive markets [Hoskin and Macve, 1986, 1988; Carmona et al., 1997; Núñez, 2002a; Carmona and Donoso, 2004] and in firms operating in competitive markets with governmental support [Prieto and Larrinaga, 2001; Carmona and Gómez, 2002].

The present study of organizations in 18th century Spain provides evidence not only of the evolution of cost accounting in a continental European country, but also of its practice and development in settings characterized by limited competition and monopolies conducted by the Crown. While some such evidence already exists in the form of the case studies abovementioned, this paper aims to extend their conclusions by exploring whether sophisticated cost accounting techniques were present in 13 large and medium-sized Spanish companies during the second half of the 18th century. The paper presents the results of a systematic and cross-sectional study, along the lines of the research conducted by Fleischman and Parker [1991] for British firms. The paper is structured as follows. The next section provides a brief introduction to the manufacturing environment in 18th century Spain, paying particular attention to government involvement. The subsequent section describes the categories and features that modern cost accounting should evince, according to the existing literature. Thereafter the research method is explained. The findings are then presented and interpreted, and their wider relevance for understanding the advent of sophisticated cost accounting are explored. Then follows some concluding remarks.

SPANISH MANUFACTURES, 1760-1800

When Carlos II, the last Hapsburg monarch, died in 1700, a new dynasty, the French Bourbons, settled in Spain. This dynastic change brought about innovations in social and economic policy inspired by the Enlightenment principles of rationality and the search for public happiness. One of the peculiar instruments for the diffusion of Enlightenment ideas was the Economic Societies of the Country's Friends (*Sociedades Económicas de Amigos del País*) [see Álvarez-Dardet et al., 2004], which constituted a medium for pursuing the extension of education among the peasantry and played an active role in the economic development of Spain [Sarrailh, 1992]. The reign of Carlos III (1759-1788) was a period when Enlightenment ideas had much influence. Out of a sincere desire to improve the nation, Carlos III fostered new ideas and promoted to power key Enlightenment intellectuals (such as Floridablanca, the Conde de Aranda, Campomanes, Carrabús, and Jovellanos) [Herr, 1958; Vicens Vives, 1987]. While Enlightenment principles were commonly adhered to, fear of the consequences of the French Revolution after 1789 moderated their advance [Vicens Vives, 1987].

Spanish economic policy in the 18th century was the outcome of a conflict between protectionism and economic liberalism [Vicens Vives, 1987]. On the one hand, economic policy was based on the reformulation of the colonial pact in favor of metropolitan industry and trade [La Force, 1965; Anes, 1994]. Following mercantilist ideas, policy was aimed at creating a more regular and competitive trade in order to decrease foreign competition and maintain the monopolist advantage of some privileged Spanish companies, such as the Caracas Trading Company [Vicens Vives, 1987; Eugenio, 1988]. Protectionist measures for the textile industry, such as the banning of fabric imports and the restriction of raw material exports, were passed from the early 18th century. The nightmare of Spanish mercantilists was the legitimate importation or smuggling of French and English goods that were aimed mainly for colonial trade. It has been estimated that by the end of the 17th century only one-eighth of the goods shipped from Spain to America were manufactured in Spain [Herr, 1958].

On the other hand, Spanish economic policy was also influenced by physiocrat ideas, or a form of advanced mercantilism [Herr, 1958]. Under Carlos III, the government ended the restrictions on trade between Spain and the colonies [Herr, 1958].

Further, the previous attitude towards favoring the guilds shifted and the Council of Castile engaged in curtailing all the restrictive aspects of guild regulations [Lynch, 1991]. For example, the guild regulations on the manufacture of cloth were completely eliminated by 1787.

Political reforms in 18th century Spain were carried out under monarchial absolutism. Administrative uniformity and rationalization was to be achieved through the suppression of the ancient charters of some regions. Vicens Vives [1987] argues that the main mechanism for implementing the Crown's policies of uniformity was the abovementioned Council of Castile. This institution brought about a rationalization of taxation and sought to overcome the traditional differences in taxation between the various regions. Also important in relation to uniformity were the monopolies. These constituted an important source of public revenues at this time. Vicens Vives [1987] contends that among the salt, playing cards and tobacco monopolies, the last mentioned was most remunerative, raising as much as 82,000,000 *reales* in 1797. The preference for uniformity and the need to increase revenues to sustain the empire led to placing public activities and leased monopolies (like the gunpowder monopoly) under direct state management, often in the form of royal factories. This was the case with tobacco, which was manufactured in the Royal Tobacco Factory of Seville. The changeover to direct state control of the Crown's monopolies began in 1741. It culminated in 1761 with the issue of the Instruction for the Internal Administration of the General Board of Monopolies, and specific instructions for provincial and general monopolies, salt mines, textile factories, lead mines, and gunpowder production [Artola, 1982, p. 254].

Royal Factories: Spanish entrepreneurs failed to secure the production of sufficient goods for the trade with the Spanish colonies. In order to halt the consequent dependence on manufacturers in other European countries, the Bourbons created royal factories along the lines of French Colbertism [Helguera, 1991; Fernández et al., 1992]. Foreign machinery was imported to establish the new manufactories [Anes, 1994]. As well as producing competitive goods for both the colonial trade and the Iberian market, the royal factories served at least three other purposes. First, they were conceived as technical institutions for the dissemination of industrial knowledge and skills [La Force, 1965]. Second, in the case of some monopolies the royal factories were also devised to maximize public revenues. Third, even though in the early 18th century royal factories were compatible with guilds, following the liberal reforms begun under Carlos III, they were used as instruments to destroy the guild privileges.

The term 'royal factory' is confusing and, according to several authors [La Force, 1965; Helguera, 1991], relates to three different types of companies. First, those that enjoyed some kind of tax exemption. Second, those organized as public companies, in which the king and/or the royal family had some participation (called Royal Joint-Stock Companies by La Force [1995]) and secured resultant privileges in exchange for state involvement. Third, those companies created on the state's initiative, wholly financed by and charged to the Treasury and predominantly run by civil servants. This was the case with the Royal Textile Factory of Guadalajara, founded in 1718 [La Force, 1965], the Royal Tobacco Factory [Carmona et al., 1997], and the Gunpowder monopoly [Núñez, 1999].

The fortunes of the royal factories varied. Generally, only those that effectively placed monopolies under governmental management accomplished the aim of increasing public revenues. This was the case with the Royal Tobacco Factory and the Gunpowder monopoly. In contrast, those royal factories that aimed to compete with the import of fabrics and other goods were not financially successful. Herr [1958], La Force [1965], and Vicens Vives [1987] provide details of the misfortunes of some of the royal factories. Herr [1958] attributes limited success to poor management, high transportation costs (for central manufactures in mountainous Spain), and the resistance of guilds. La Force [1965], referring to the royal textile factories, argues that they were established according to purely technical rather than economic considerations. Diseconomies of scale emerged because factories were integrated before the advent of cost-reducing technologies [La Force, 1965]. However, large factories were needed in order to overcome the most important shortcoming of Spanish industry - the lack of skilled workers. Integration was pursued to develop learning, and the solution envisaged was to "import" foreign skilled craftsmen [Larruga, 1794]. As a result of these problems the royal textile factories depended on royal subsidies to survive. One of the most extreme cases was the Royal Textile Factory of Guadalajara, which required 2,000,000 *reales* per annum during the reign of Fernando VI (1746-1759).

Along with the rest of Europe, Spain experienced a period of economic growth in the second half of the 18th century, which was reflected in a population increase of 40% [Lynch, 1991]. This fact meant a growing demand for products and an increasing supply of labor for manufacturing work. Lynch [1991] estimates that 200,000 people worked in the industry and service sectors by the end of the century. Arguably, Spanish industrialization also contributed to greater prosperity. By 1789 the share of Spanish-made goods in the trade with the colonies had increased to one half, compared to one-eighth in 1700 [Milward and Saul, 1973].

Yet, by the end of the 18th century the economic advance was halted. There were a number of reasons for this. First, the fear caused by the French Revolution slowed and even reversed the pace of reform [Burrel, 1988]. For instance, in 1791 all private Spanish periodicals were suspended [Herr, 1958]. Second, the war between England and Spain, which broke out in 1796, contributed to the loss of trade routes with the Americas until 1802. Vicens Vives [1987] estimates the loss of trade to the port of Cadiz, the busiest in Spain, at 2,700,000 *reales*. Third, freedom of trade between the Americas was granted in 1778 and reinforced in 1797, signifying the beginning of the colonies' independence. Finally, the Spanish economy was adversely affected by the Napoleonic invasion of Spain (1808-1814). All Spanish manufacturers suffered during this period. Vicens Vives [1987] contends that from 1800 until 1832 the textile industry returned to a predominantly artisan character.

In summary, the context of Spanish manufacturing during most of the 18th century was characterized by change inspired by the Enlightenment. The pace of reform increased after 1759, with the support of Carlos III. Some of the reforms were aimed at free trade, while others, such as the creation of royal factories, were aimed at the protection of national industries. For manufacturing concerns in Spain the mid-late 18th century was a period of economic success followed by adversity.

LITERATURE ON THE ADVENT OF SOPHISTICATED COST AND MANAGEMENT ACCOUNTING

A growing body of research has supported the revision of Pollard and Chandler's thesis by revealing the use of sophisticated cost accounting techniques in different settings before the second half of the 19th century. Johnson [1972] examined the cost management techniques used in a textile mill, the Lyman Mills Corporation (U.S.), before 1860. He concluded that its elaborate costing system was used to facilitate internal control of operations. From 1819 the Springfield Armory (US) also kept detailed records on raw materials, processes, and finished products, as well as on the average time required to perform each task and every worker's wages. From 1840 more frequent use of these techniques was applied to improve internal control [Hoskin and Macve, 1988; Tyson, 1990]. Fleischman and Parker [1990] have also established the existence of advanced management accounting techniques in the Carron Company, a forerunner of industrialization in Scotland.

In the Spanish context, Carmona et al. [1997, 1998] have documented the existence of modern cost accounting techniques in the Royal Tobacco Factory of Seville before 1779. Flores [1983], Prieto and Larrinaga [2001], Núñez [2002a], and Carmona and Gómez [2002] have also examined the use of sophisticated cost accounting techniques in several Spanish companies during the second half of the 18th century. They studied specific cases in depth, analyzing the particular circumstances that gave rise to the use of cost accounting and demonstrated the existence of sophisticated costing techniques in settings characterized by the absence of competitive markets and extended governmental intervention. Despite these advances in identifying the use of costing in Spanish concerns, there remains a lack of cross-sectional surveys that would permit the generalizing of findings beyond the isolated cases studied to date.

Thus, the aim of this paper is to explore the extent of cost accounting practices and knowledge in 18th century Spain. Fleischman and Parker [1991] conducted a cross-sectional study of 25 British companies, forerunners of the industrial revolution, with the aim of exploring Pollard's thesis. To perform this kind of analysis, it is necessary to establish categories that can be investigated in each of the cases examined. Fleischman and Parker assumed that the development of sophisticated cost accounting equaled the frequent use of certain costing techniques: (i) the use of cost control techniques, including costing based on responsibility centers; (ii) overhead allocation to products; (iii) the use of costs for decision making (including cost comparison), and (iv) the use of budgets, forecasts, and standards. While Edwards and Newell [1991] also reviewed several cases where an appreciable development in cost accounting existed before 1850, the categorization proposed by Fleischman and Parker [1991] is more systematic and is adopted here.

Of the 25 British companies studied by Fleischman and Parker [1991], the majority (72%) routinely recorded costs. More precisely, costs were used to control materials, waste, labor and even the profitability of different blends of materials. Some textile mills also recorded daily production measures. Other companies managed their costs through the use of responsibility centers, and in these organizations there was evidence of profit calculation. As regards overhead allocation to products, 64% of the companies added manufacturing and commercial overhead to direct production cost, although only 20% did an excellent job of overhead allocation (Fleischman and Parker [1991] do not define the difference between 'excellence' and mere 'activity' in a given area). Costs of up to 31 different batches were calculated, and arguments based on the contribution margin logic were also present. Of the 25 companies, 56% used cost information to make decisions on technological innovation, vertical integration, the abandonment of production lines, or alternative merchandise transport routes. However, only 28% did an excellent job in this area. Finally, in 80% of the cases Fleischman and Parker identified the application of some kind of standard, usually to control inventories and occasionally in relation to budgeting. The association between standards and inventory control was in some cases related to the awareness of the difference between manufacturing cost and the realizable net value for obsolete products. Moreover, some businessmen also conducted sophisticated experiments to establish standards for different processes.

The approach followed by Fleischman and Parker [1991] and other authors such as Tyson, Boyns and Edwards has provoked a number of critiques. Loft [1995] brands such work the "revision by neoclassicists of traditional history". Hoskin and Macve [2000] charge this approach with three different levels of problem. First, at the theoretical level, they contend that Fleischman and colleagues oversimplify causality in conceiving the new accounting practices of the 18th and 19th centuries as driven by the need for coordination in larger industrial firms. Rather, Hoskin and Macve [2000] maintain that we should consider whether causes include other organizational, social and economic changes. Recently, Boyns and Edwards [2000, p. 153] have acknowledged that sociopolitical and historical contexts may be important factors in the adoption of management accounting. Moreover, recent collaborations between Fleischman and Macve [2002] suggest that the so-called neoclassical revisionists and their critics recognize the potential relevance of their respective theoretical positions. As is suggested by the brief historical context provided earlier in the current paper, the authors consider that the social and political contexts are important to understanding the adoption of cost and management accounting techniques in Spanish concerns.

Second, at an evidential level, Hoskin and Macve [2000] contend that it is not possible to infer purpose from the existence of formal accounting records. That is, the evidence of complex cost accounting records-related to past performance and to the preparation of double-entry accounting ledgers- permits only assertions about how techniques 'might' have been utilized. Imposing present-day categories on the past can also be a misleading line of causation. However, Hoskin and Macve [2000] admit that the purpose of cost accounting can be inferred if the accounts compute future outcomes, if they are prepared in the context of decision making or negotiation, or if they are used as a base for contractual negotiations. In order to avoid these evidential pitfalls, we have carefully examined the context in which cost accounting practices were introduced and applied.

Finally, at the historiographical level, Hoskin and Macve [2000] question the general significance of routine cost and management accounting practices, as investigated by authors such as Fleischman and Parker [1991]. In contrast, Hoskin and Macve [2000, p. 109] argue that the "historical crux is to identify the discontinuity between early attempts at costing for accountability, decision making, and control purposes, and what may be seen as the modern approach based in a human accounting". They hypothesize that human accounting emerged in the U.S. during the second half of the 19th century. Nonetheless, Hoskin and Macve [2000], together with Fleischman and Tyson [1993] and Boyns and Edwards [2000], agree on the desirability of further research in cost and management accounting history and encourage the examination of business records for all countries [Boyns and Edwards, 2000, p. 157]. It is hoped that the evidence presented in this paper will contribute to these debates in the history of cost and management accounting.

RESEARCH METHOD

While pioneering British firms have been the focus of much attention [Fleischman and Parker, 1991], their contemporaries in Spain have not been systematically studied through surviving business records. In Spain information on archives containing business records is dispersed and the relevant collections have received less consideration than state administrative documents. Therefore, we devised a research method comprising of three different approaches in order to identify the records of Spanish companies during the second half of the 18th century and analyze their cost and management accounting practices.

First, we examined cases already covered in the literature: the Royal Tobacco Factory of Seville [Carmona et al., 1997, 1998], the Riotinto Mines [Flores, 1983], the gunpowder monopoly in New Spain [Núñez, 2002a, b], and the Royal Textile Factory of Ezcaray [Prieto and Larrinaga, 2001]. Second, we explored surviving business records of other factories contained in various archives, mainly in the *Archivo General de Simancas* and the *Secretaría y Superintendencia de Hacienda* section (AGS-SSSH), which contains state administrative documents dealing with economic matters during the relevant period. Third, we considered the indirect evidence contained in contemporary printed sources, in particular, Larruga's *Political and Economic Memoirs* [1794].

We focus on factories, on the assumption that cost accounting most probably emerged and gained some degree of sophistication in this kind of organization. The institutional context of the period (1760-1800) should be taken into consideration, since in Spain the most important factories were owned by the Crown or benefited from some kind of royal protection. These links with the Crown explain not only the development of administrative and accounting techniques (given the obligation to render accounts), but also the survival of records.

It is difficult to establish the total population of firms during the period studied. Admittedly, the fact that our sample contains only 13 cases, while Fleischman and Parker [1991] analyzed 25, could limit the wider validity of the conclusions. However, it should also be considered that (i) for the reasons explained above, the period we examine (1760-1800) is less than half that studied by Fleischman and Parker; (ii) as we have also argued above, the industrial fabric of 18th century Spain was less developed than that of Britain; (iii) our cases span a broad spectrum of capital-intensive industries and include the most important companies in the textile, mining, and tobacco industries - companies that have been cited by economic historians such as Herr [1958], La Force [1965], and Vicens Vives [1987]. Further, (iv) and more importantly, our conclusions are conditioned by the Spanish political and institutional context, which encompasses a particular category of companies (the royal factories and the *rentas,* or monopolies belonging to the Crown).

In the British case, Fleischman and Parker [1991] estimated the survival of costing records at less than ten percent. This survey encountered a similar difficulty. Bookkeeping for finan-

TABLE 1

Documentary Sources Used in This Paper

Institution	*Primary sources*	*Secondary sources*
Esparto Textile Factory of Vallejo	Larruga [1794], Vol. 17	
Alcoraya Mine	*Archivo General de Simancas*, Sección de Secretaría y Superintendencia de Hacienda, file 803	
Río Tinto Mines		Flores Caballero, M. [1983]
Royal Liqueur Factory of Madrid	*Archivo General de Simancas*, Sección de Secretaría y Superintendencia de Hacienda, file 812	
Royal Arsenal of Eugui and Orbaiceta	*Archivo General de Simancas*, Sección de Secretaría y Superintendencia de Hacienda, file 805	
Royal Textile Factory of Cuenca	*Archivo General de Simancas*, Sección de Secretaría y Superintendencia de Hacienda, file 787	
Royal Textile Factory of Ezcaray	*Archivo General de Simancas*, Sección de Secretaría y Superintendencia de Hacienda, file 788; Larruga [1794]	Prieto and Larrinaga [2001]
Royal Textile Factory of Guadalajara	Larruga [1794] Vols. 14, 15 and 16	Carmona and Gómez [2002]
Royal Textile Factory of San Fernando	*Archivo General de Simancas*, Sección de Secretaría y Superintendencia de Hacienda, files 784-785	
Royal Textile Factory of Segovia	Larruga [1794], Vol. 12	
Royal Gunpowder Factory of New Spain	*Archivo General de Indias*, Audiencia de México. Files 1013, 1123, 1249, 1250, 1260, 1261, 1405, 2216, 2217, 2218, 2228, 2230, 2232, 2233, 2235, 2236, 2240, 2347, and 2450	Maniau [1793]; Humboldt [1822]; Núñez [1999, 2002a, 2002b]
Royal Tobacco Factory of Seville	*Archivo Histórico de la Fábrica de Tabacos de Sevilla* (Altadis, S.A.); *Archivo Histórico Nacional*; *Archivo General de Simancas*	Rodríguez Gordillo [1975, 1977, 1990, and 1993]; Morales Sánchez [1989]; Carmona et al. [1997, 1998]; Gutiérrez [1993, 1999]
Royal Textile Factory of Ávila	*Archivo General de Simancas*, Sección de Secretaría y Superintendencia de Hacienda, files 755-758	

cial accounting is more easily found in the Spanish archives. Thus, for instance, all the files studied in the AGS-SSSH contain documentation gathered by the *Junta General de Comercio y Moneda* (Royal Committee for Trade and Money), which represented the Crown's interests in these manufactures. Fortunately, despite the overwhelming dominance of financial accounting records, a careful archival survey allowed us to identify evidence of costing practices. For all the organizations examined for the period 1760-1800, files existed containing evidence of the use of costing techniques. While in some cases a complete series of costing and budgeting records survive or exist, in other instances we have only isolated cost studies for decision making or a reference to them in the correspondence.

In addition to the AGS-SSSH, we visited private archives to examine the Royal Tobacco Factory case (Historic Archives of Altadis). Primary sources for the gunpowder monopoly were gathered at Seville's *Archivo General de Indias* (AGI), which contains copies of the accounting statements required by the *Contaduría General del Consejo de Indias* (Council of the Indies General Accounting Office). As in the case of the AGS-SSSH, information on costing was found with financial accounting information.

Memorias Políticas y Económicas [Larruga, 1794] is a 30-volume treatise about the advancement of Spanish industry in the last years of the 18th century. It is a descriptive account, with occasional physiocratic remarks, that essentially transcribes documents from diverse origins, mainly the companies themselves. For some companies, we verified Larruga's references to costing exercises against the records found in the archival survey. Larruga is also referred to by economic historians such as Herr [1958] and Vicens Vives [1987]. We thus consider evidence contained in the *Memorias* as important primary source material.

We analyzed all information from primary and secondary sources according to the four criteria mentioned by Fleischman and Parker [1991]. As the cases vary in quantity and quality of information, we devised a checklist which covered the four areas of costing activity and allowed us to describe and contrast all the companies' activities in outline form (see Appendix 1).

DESCRIPTION AND INTERPRETATION OF FINDINGS

Table 2 shows the degree to which each company satisfies the four main criteria for 'sophisticated' cost management.

Following Fleischman and Parker, we have distinguished between companies that show some kind of *activity* in a particular area (sporadic use of a technique, denoted with an 'A') and those with an *excellent* development (formal definition and routine application of cost management, denoted with an 'E').

TABLE 2

Spanish Factories Practicing Management Accounting in the Second Half of the 18th Century

Institution	*Costs Control (Responsibility Centers)*	*Overhead Allocation*	*Costs for Decision Making*	*Standards, Forecasts, and Budgets*
Esparto Textile Factory of Vallejo	A	A	–	–
Alcoraya Mine	A	–	–	–
Río Tinto Mines	E	E	E	–
Royal Liqueur Factory of Madrid	E	A	E	–
Royal Arsenal of Eugui and Orbaiceta	E	–	–	E
Royal Textile Factory of Cuenca	A	–	–	–
Royal Textile Factory of Ezcaray	A	E	A	E
Royal Textile Factory of Guadalajara	E	E	E	E
Royal Textile Factory of San Fernando	A	A	–	A
Royal Textile Factory of Segovia	E	E	–	A
Royal Gunpowder Factory of New Spain	E	E	E	E
Royal Tobacco Factory of Seville	E	E	E	E
Royal Textile Factory of Ávila	E	–	A	A
Total Activity	13	9	7	8
Percentage	100%	69%	54%	62%

'A': companies that show some kind of *activity* in a particular area (sporadic use of a technique).
'E': companies that show an *excellent* development (formal definition and routine application of cost management).

At first glance, Table 2 illustrates that cost accounting was often used by companies in Spain during the second half of the 18th century. All the companies in this study carried out some form of production cost control. More than two-thirds allocated manufacturing overhead, and more than half used that information for decision making and to elaborate a form of standard or budget.

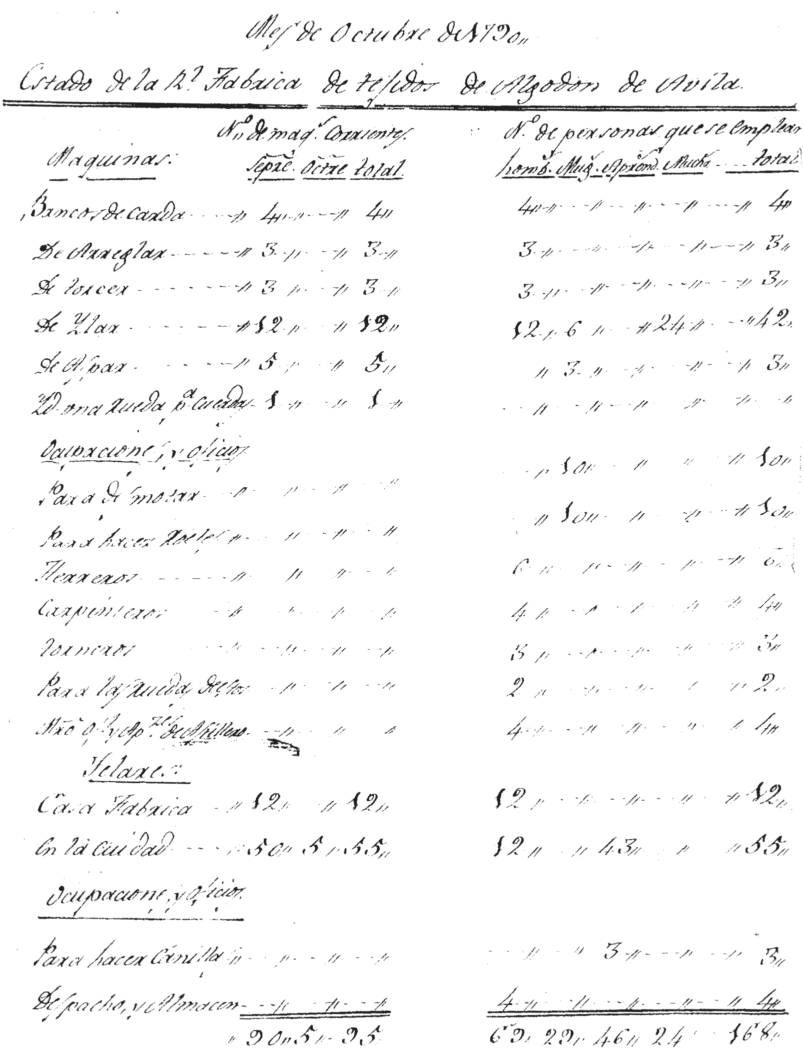
Cost Control: As Table 2 shows, every company in the study undertook some kind of cost control. In the tobacco and gunpowder factories and in the arsenal, materials were weighed, registered, and controlled as they passed through the different phases of production, and there were rules for these procedures. For instance, in the tobacco factory snuff underwent a complex production process involving seven stages (sun drying, first milling, mixture, airing, second milling, fermentation, and distribution), which was controlled by a manager who was held accountable. Control was based on accounting records and aimed essentially at avoiding the theft and smuggling of luxury raw materials and goods (for a further explanation, see Carmona et al., [1997]). For the gunpowder factory, the Gunpowder Ordinances established "usual wastes" in the production process, and the factory manager was accountable for higher wastes [AGI, file Mexico 2216]. By-products of the production process ('gunpowder powder') were reused. For the Ávila textile factory there are a few reports on production wastes in 1798, and in the Guadalajara factory materials shrinkage costs were calculated.

The quality of the products was controlled in four factories (textiles in Guadalajara and Ávila, tobacco, and gunpowder). In the tobacco factory a supervisor controlled the quality of the cigars; cigar makers were paid 16 *maravedís* per properly made batch [Álvarez et al., 2002]. In the gunpowder factory, a quality control network was established involving strict regulations and a system of rewards and sanctions at different levels. The three major stages in the process of gunpowder production (grinding, pasting and corning) could not commence until the main raw materials (saltpeter, sulfur, and carbon) met certain quality standards necessary to guarantee the success of the final product. In some cases, the so-called *assays for raw material quality evaluation*, which varied according to the different ingredients and intended use of the gunpowder (by the army or by the public), determined that re-processing was necessary. Tests were also made to verify the quality of the finished gunpowder [Núñez, 1999].

For the Ávila textile factory there exists a series of monthly records of machines and workers, classified according to the different productive phases, as well as production data and costs [AGS-SSSH, file 755]. One example is exhibited in Figure 1. The statutes issued by the government for the management of this factory [AGS-SSSH, file 756] required that "all the weavers employed in the factories have to be accounted for in the books, as well as the fabrics that each one weaves and all the different production processes". Hoskin and Macve [2000] contend that early costing attempts should be differentiated from a modern approach based on human accounting. In Figure 1, however, both machines and weavers are classified by processes. Weavers are also classified by sex and age. Here we see how "Accounting is able to establish new modes of accountability by rendering human activities visible, thereby promoting new areas of discourse, and enabling social fields to be represented as areas of rational economic action" [Carmona et al., 1997]. Whether the practices of the Ávila factory are the embryo of, or an unsuccessful endeavor at, a shift in focus from machines to men is beyond the scope of this paper.

FIGURE 1:

Monthly Production Reports, Classifying Workers and Machinery. Royal Textile Factory of Ávila



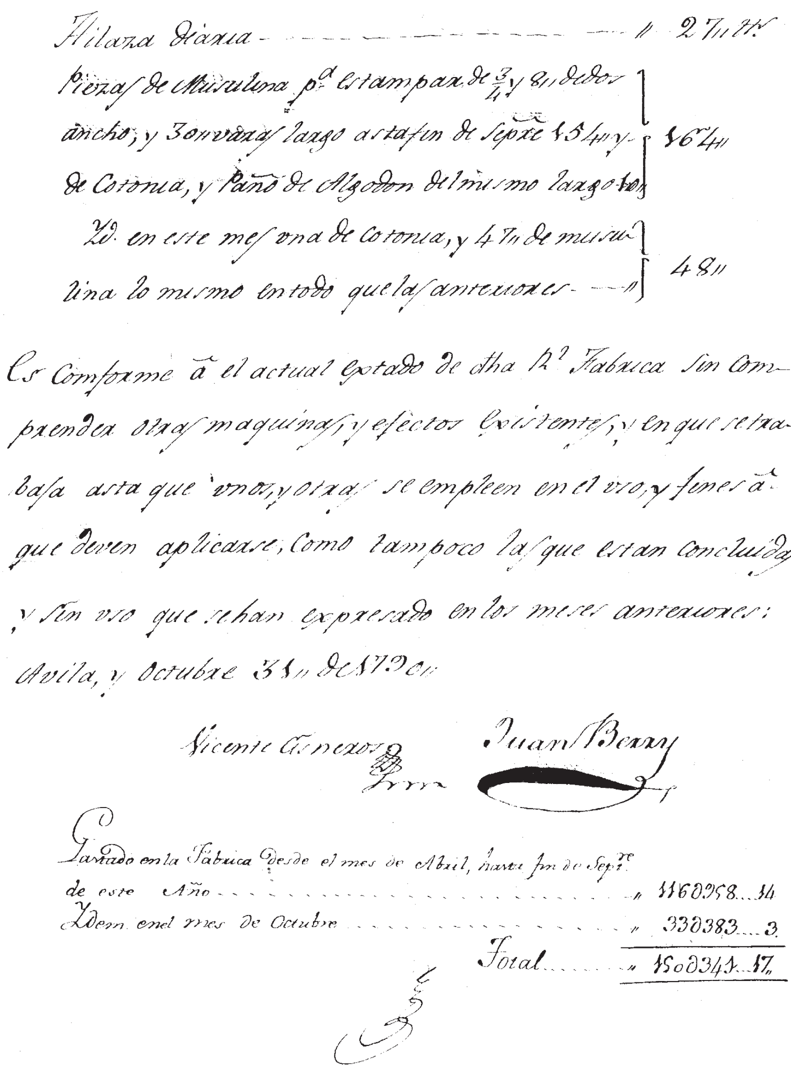
Mes de Octubre de 1790.

Estado de la R.l Fabrica de tejidos de Algodon de Avila.

Maquinas:	Nº de maq.s Corrientes: Septe.	Octre.	total	Nº de personas que se emplean: homb.	Mug.	Aprend.	Mucha.	Total
Bancos de Cardar	4	//	4	4	//	//	//	4
De Arreglar	3	//	3	3	//	//	//	3
De torcer	3	//	3	3	//	//	//	3
De Hilar	12	//	12	12	6	//	24	42
De Aspar	5	//	5	//	3	//	//	3
De una rueda p.a Cardar	1	//	1	//	//	//	//	//
Ocupaciones y oficios								
Para Armar	//	//	//	//	10	//	//	10
Para hacer Telas	//	//	//	//	10	//	//	10
Herreros	//	//	//	6	//	//	//	6
Carpinteros	//	//	//	4	//	//	//	4
Torneros	//	//	//	3	//	//	//	3
Para las ruedas de Hilar	//	//	//	2	//	//	//	2
Niño q. se ocupa de Cilindros	//	//	//	4	//	//	//	4
Telares:								
Casa Fabrica	12	//	12	12	//	//	//	12
En la Ciudad	50	5	55	12	//	43	//	55
Ocupaciones y oficios								
Para hacer Canillas	//	//	//	//	//	3	//	3
Despacho y Almacen	//	//	//	4	//	//	//	4
	90	5	95	69	29	46	24	168

FIGURE 1 (continued)

Monthly Production Reports, Classifying Workers and Machinery. Royal Textile Factory of Ávila



Hilaza diaria .... 27 ll.

Piezas de Muselina p.a estampar de 3/4 y 8 dedos ancho, y 30 varas largo asta fin de Sep.e 154 y de Cotonia, y Paño de Algodon del mismo largo 10 — 164

Id. en este mes una de Cotonia, y 47 de muselina lo mismo en todo que las anteriores — 48

Es Conforme á el actual Estado de dha R.l Fabrica sin comprender otras maquinas, y efectos Existentes, y en que se trabaja asta que unos, y otras se empleen en el uso, y fines á que deven aplicarse; Como tampoco las que estan concluidas, y sin uso que se han expresado en los meses anteriores: Avila, y Octubre 31 de 1790.

Vicente Cisneros — Juan Berry

Gastado en la Fabrica desde el mes de Abril, hasta fin de Sep.re de este Año .... 1160958 ... 14

Idem en el mes de Octubre .... 330383 ... 3

Total .... 1500341 ... 17

Source: AGS-SSSH. File 755.

FIGURE 1 (continued)

Monthly Production Reports, Classifying Workers and Machinery. Royal Textile Factory of Ávila

Month of October, 1790

State of the Royal Cotton Textiles Factory of Ávila

	Number of machines in use			Number of people employed				
	Sept.	Oct.	Total	Men	Women	Apprentices	Boys	Total
Machines								
Carding machines	4		4	4				4
Benches for arranging	3		3	3				3
Spindles	3		3	3				3
Spinning wheels	12		12	12	6		24	42
Reeling machines	5		5		3			3
And one wheel for ropes	1		1					
Occupations and posts								
Pickers					10			10
Spoolers					10			10
Blacksmiths				6				6
Carpenters				4				4
Machinists				3				3
For the machinists' wheels				2				2
Craftsmen, skilled workmen, and apprentices of warp-bar making				4				4
Looms								
Factory	12		12	12				12
In town	50	5	55	12		43		55
Occupations and posts								
Spool makers						3		3
Dispatch and stock				4				4
	90	5	95	69	29	46	24	168

Daily spinning . . . . 27 lbs
¾ and 8 fingers wide and 30 *varas* length pieces of muslin for printing until the end of September, 154; and cottonade[3] and cotton fabric of the same length, 10; 164
And during this month one piece of cottonade and 47 of muslin, everything the same as the last ones 48

This (report) is in accordance with the Royal Factory's actual state without considering machinery and other stocks, which are in process until all of them be employed for the purposes for which they should be applied. Those that are finished but not employed were expressed in the preceding months.

Ávila, October 31, 1790

Signed: Vicente Cisneros and Juan Berry

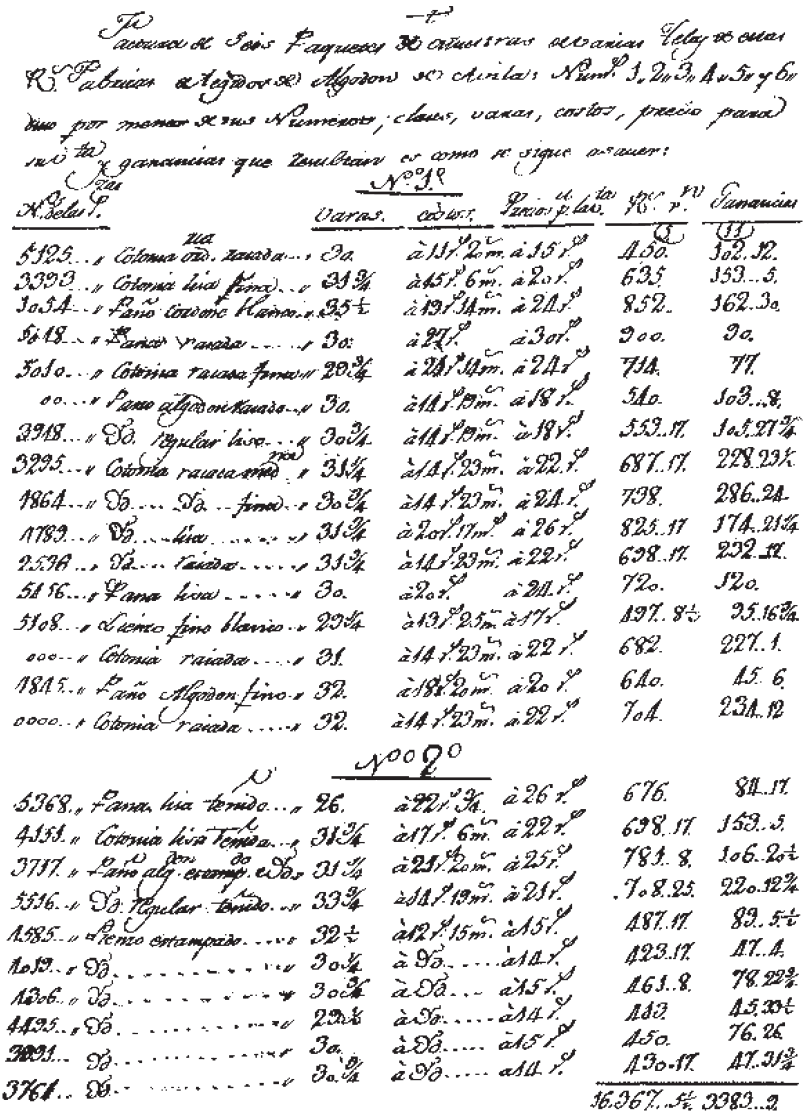
Expensed in the factory from the month of April until the end of September this year . . . . 116,958...14
Idem month of October . . . . 33,383... 3
Total . . . . 150,341...17

[3] Cottonade (*Cotonía* in Spanish) was a kind of coarse cotton fabric.

Some other examples of complex managerial accounting follow. In the textile factory of Ávila, there is evidence that the costs of 79 different products were calculated (see the extract in Figure 2). In San Fernando's textile factory, labor costs were

FIGURE 2

Statement of Costing for Seventy-nine Different Products. Royal Textile Factory of Ávila (extracted).



Factura de Seis Paquetes de Muestras de varias Telas de esas Rs. Fabricas de Tejidos de Algodon de Avila: Num.s 1, 2, 3, 4, 5 y 6 con por menor de sus Numeros, clases, varas, costos, precio para su venta y ganancias que resultan es como se sigue a saber:

N.° 1.°

N. Telas		Varas	Costos	Precios p. la venta	Rs. vn	Ganancias
5125	Colonia ord.a rayada	30	à 11 r.s 2 m.	à 15 r.s	450	102.12
3393	Colonia lisa fina	31 3/4	à 15 r.s 6 m.	à 20 r.s	635	153..5
3054	Paño cordonc. blanco	35 1/2	à 19 r.s 14 m.	à 24 r.s	852	162.30
5618	Paño rayado	30	à 27 r.s	à 30 r.s	900	90
5010	Colonia rayada fina	29 3/4	à 24 r.s 14 m.	à 24 r.s	714	77
00	Paño algodon rayado	30	à 14 r.s 19 m.	à 18 r.s	540	103..8
3918	D.o Regular liso	30 3/4	à 14 r.s 19 m.	à 18 r.s	553..17	105.27 1/4
3295	Colonia rayada med.a	31 1/4	à 14 r.s 23 m.	à 22 r.s	687..17	228.23 1/2
1864	D.o D.o fina	30 3/4	à 14 r.s 23 m.	à 24 r.s	738	286..24
1783	D.o lisa	31 3/4	à 20 r.s 17 m.	à 26 r.s	825..17	174..21 1/4
2596	D.o rayada	31 3/4	à 14 r.s 23 m.	à 22 r.s	698..17	232..12
5156	Pana lisa	30	à 20 r.s	à 24 r.s	720	120
5108	Lienzo fino blanco	29 3/4	à 13 r.s 25 m.	à 17 r.s	197..8 1/2	95.16 3/4
000	Colonia rayada	31	à 14 r.s 23 m.	à 22 r.s	682	227..1
1845	Paño Algodon fino	32	à 18 r.s 20 m.	à 20 r.s	640	45..6
0000	Colonia rayada	32	à 14 r.s 23 m.	à 22 r.s	704	234..12

N.° 2.°

5368	Pana lisa teñida	26	à 22 r.s 3/4	à 26 r.s	676	84..17
4151	Colonia lisa Teñida	31 3/4	à 17 r.s 6 m.	à 22 r.s	698..17	153..5
3717	Paño alg.on estamp.do	31 1/4	à 21 r.s 20 m.	à 25 r.s	781..8	106..20 1/2
5516	D.o Regular teñido	33 3/4	à 14 r.s 19 m.	à 21 r.s	708.25	220.12 3/4
1585	Lienzo estampado	32 1/2	à 12 r.s 15 m.	à 15 r.s	487..17	89..5 1/2
1019	D.o	30 1/4	à D.o	à 14 r.s	423..17	47..4
1306	D.o	30 3/4	à D.o	à 15 r.s	461..8	78.22 1/2
4495	D.o	29 1/4	à D.o	à 14 r.s	413	45.20 1/2
3891	D.o	30	à D.o	à 15 r.s	450	76.26
3761	D.o	30 3/4	à D.o	à 14 r.s	430..17	47..31 3/4
					16367..5 1/2	3383..2

Source: AGS-SSSH. File 756

FIGURE 2 (continued)

Statement of Costing for Seventy-nine Different Products. Royal Textile Factory of Ávila (extracted)

Account for six collections of various samples of cotton fabric from the Ávila Royal Factories: Nos. 1, 2, 3, 4, 5, and 6. Numbers, classes, *varas*, costs, selling prices, and consequent profits are as follows:

N⁰ 1

Number of Pieces		*Varas*	Costs[4]	Selling price [per *vara*]	[Sales] *Reales*	Profit
5125	Pink ordinary cottonade	30	11R 20m	15R	450	102..12
3393	Fine smooth cottonade	31¾	15R 6m	20R	635	153..5
1054	White *Cordoné* cloth	35½	19R 14 m	24R	852	162..30
5048	Pink corduroy	30	27R……	30R	900	90
5010	Fine striped cottonade	29¾	21R 14m	24R	714	77
00	Striped cotton cloth	30	14R 19m	18R	540	103..8
3948	Smooth regular cloth	30¾	14R 19m	18R	553..17	105..27¾
3295	Medium striped cottonade	31¼	14R 23m	22R	687..17	228..23½
4864	Fine striped cottonade	30¾	14R 23m	24R	738	286..24
4789	Lisa ccottonade	31¾	20R 17m	26R	825..17	174..21¼
2538	Striped cottonade	31¾	14R 23m	22R	698..17	232..17
5456	Smooth velveteen	30	20R……	24R	720	120
5108	White fine linen cloth	29¼	13R 25m	17R	497..8½	95..16¾
000	Striped cottonade	31	14R 23m	22R	682	227..1
4845	Fine cotton cloth	32	18R 20m	20R	640	45..6
0000	Striped cottonade	32	14R 23m	22R	704	234..12

N⁰ 2

5368	Dyed smooth velveteen	26	22R¾	26R	676	84..17
4151	Dyed smooth cottonade	31¾	17R 6m	22R	698..17	153..5
3717	Printed cotton cloth	31¼	21R 20m	25R	781..8	106..20½
5516	Dyed ordinary cloth	33¾	14R 16m	21R	708..25	220..12¾
4585	Printed canvas	32½	12R 15m	15R	487..17	83..5½
4019	Idem	30¼	12R 15m	14R	423..17	47..4
4306	Idem	30¾	12R 15m	15R	461..8	78..22¾
4495	Idem	29½	12R 15m	14R	413	45..33½
3991	Idem	30	12R 15m	15R	450	76..26
3761	Idem	30¾	12R 15m	14R	430..17	47..31¾
					16,367..5½	3,383..9

[4] Figures in *reales* are followed by "R," and their remainders, accounted for in *maravedís,* are followed by "m". In the two last columns, in the original *reales* are followed by two points and the remainder in *maravedís*. Please note that the remainders are not computed on a decimal base.

checked weekly. In Madrid's liqueur factory the costs of five products were computed for consecutive years with the aim of providing evidence of the progressive decrease of margins for some of the products (see below).

In seven cases, costs were separated for the company's different areas of activity. In the Ávila and tobacco factories, machines and workers were sorted into different phases of the production process. In the arsenals, monthly reports of the expenses at Eugui and Orbaiceta were elaborated in each factory by the accountant and then endorsed by the managers.

Even though costing was related to inventory control and its inclusion in the companies' general statements,[5] we cannot conclusively reject the possibility that these records were used for internal management purposes, as Hoskin and Macve [2000] might suggest. On the contrary, costing in most cases was related to controls over materials, product quality, waste, cost and labor.

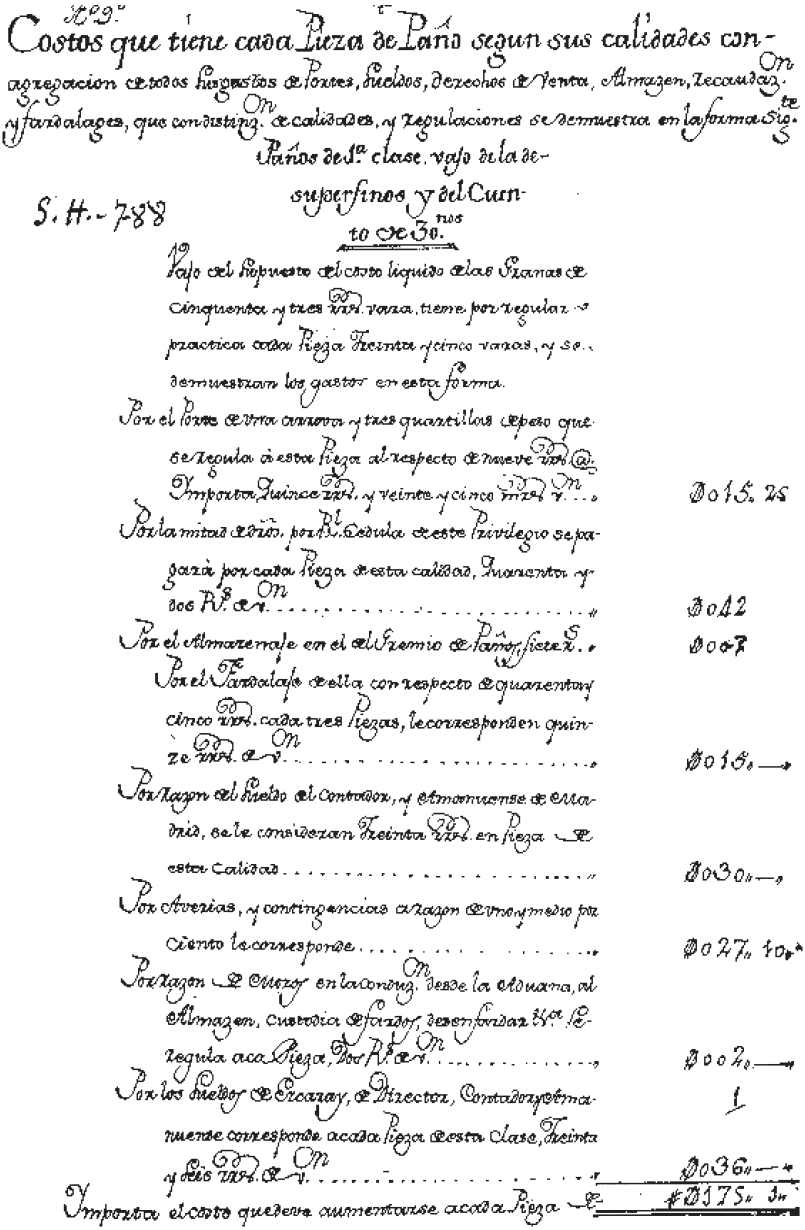
Overhead Allocation: There is evidence to show that the importance of overheads was generally recognized. As Table 2 shows, nine factories took some account of them, of which eight allocated overheads to products. Madrid's liqueur factory warned that the "wages of the employees are not included" in the calculation of costs. In contrast, in the gunpowder factory, "the wages of the permanent job assistants and employees of the Accounting Office" were included in production cost. Hence, a report contended that the more pounds of gunpowder produced, the less a pound would cost, since administration unit costs decreased [AGI, file Mexico 2228].

In some factories, the costs of several products were calculated and different foundations for overhead allocation were used. For example, as Figure 3 illustrates, Ezcaray's factory storage costs were allocated to products at seven *reales* each, while damages and contingencies costs were figured at one and a half percent of production cost. Baling cost and the managers' and accountants' wages were allocated at a different rate for each type of fabric depending on its class - allowing higher rates for higher quality fabrics. In the same vein, in the tobacco factory the porters' cost was allocated to snuff and cigars at 60% and 40% respectively, according to experts' estimations.

[5] The general statements formulated by these companies followed not the double-entry system, but the Venetian style of credits and debits. Hernández Esteve [1996] contends that this was a general practice in 18th century Spain.

FIGURE 3

Statement of a Cost Study Where Overhead Is Allocated to a Product. Royal Textile Factory of Ezcaray.



N.º 9.º

Costos que tiene cada Pieza de Paño segun sus calidades con-
agregacion de todos los gastos de Portes, Sueldos, derechos de Venta, Almazen, Recaudaz.on
y fardalages, que con distinz.on de calidades, y regulaciones se demuestra en la forma sig.te

Paños de 1.a clase, vajo de la de-
superfinos y del Cuen-
to de 30.nos

S. H.- 788

1.º
Vajo del supuesto del costo liquido de las Granas de
cinquenta y tres r.s v.n vara, tiene por regular
practica cada Pieza Treinta y cinco varas, y se
demuestran los gastos en esta forma.

Por el Porte de una arroba y tres quartillos de peso que se regula a esta Pieza al respecto de nueve r.s v.n @ Importa Quince r.s v.n y veinte y cinco m.s v.n	0015. 25
Por la mitad de dro. por R.l Cedula de este Privilegio se pagará por cada Pieza de esta calidad, Quarenta y dos R.s v.n	0042
Por el Almazenaje en el del Gremio de Paños, siete r.s	0007
Por el Fardalaje de ella con respecto de quarenta y cinco r.s v.n cada tres Piezas, le corresponden quinze r.s v.n	0015
Por razon del sueldo del Contador, y Amanuense de Madrid, se le consideran Treinta r.s v.n en Pieza de esta calidad	0030
Por Averias, y contingencias a razon de uno y medio por ciento le corresponde	0027. 10
Por razon de Mozos en la conduz.on desde la Aduana, al Almazen, custodia de fardos, desenfardar &.a se regula a cada Pieza, Dos R.s v.n	0002
Por los sueldos de Ezcaray, de Director, Contador y Amanuense corresponde a cada Pieza de esta clase, Treinta y seis r.s v.n	0036
Importa el costo que deve aumentarse a cada Pieza de	0175. 3

Source: AGS-SSSH. File 788

FIGURE 3 (continued)

Statement of a Cost Study Where Overhead Is Allocated to a Product. Royal Textile Factory of Ezcaray

Costs of each piece of cloth, according to its quality, adding all its transport, wages, selling rights, warehousing, recoveries, and baling expenses; distinguishing qualities and items as demonstrated in the following manner:

First Class Cloth, superfine and "thirty-hundreds"

I assume a liquid cost of fifty-three *reales* per *vara,* where each piece usually has thirty-five *varas,* whose expenses are demonstrated as follows.

For the carriage of one arroba and three *cuartillas* weight, nine *reales* each arroba gives fifteen *reales* and twenty-five *maravedís*	15.25
For half the rights, for privileges acquired by royal letter patent, for each piece of this quality, forty-two *reales*	42
Stocking in the Clothing Guild, seven *reales*	7
Baling, forty-five *reales* every three pieces, fifteen *reales*	15
Salaries of the accountant and the scribe from Madrid, for each piece of this quality	30
Damages and eventualities, one and a half percent	27,10
Porters carrying from customs to the store, custody of the bales, and unbaling, gives two *reales* each piece	2
Salaries of the director, the accountant, and the scribe of Ezcaray, thirty-six *reales* for each piece of this class	36
	175.1

The cost that must be added to each piece.

In the Ezcaray textile factory and the gunpowder factory depreciation costs were formally noted. In Ezcaray the impairment cost of tools was allocated to different products. In the gunpowder factory the depreciation of boilers "due to the continuous torment of fire" was taken into account [AGI, file Mexico 2228]. For the tobacco factory, payback was calculated for the investment in a new building [Carmona et al., 2002].

Documents also reveal awareness of the importance of fixed costs. It should be noted that royal textile factories faced financial difficulties due to substantial investments, integration of activities before the application of the first inventions decreased costs, high transport costs and lack of skilled workers [La Force, 1965; also Prieto and Larrinaga, 2001]. The correspondence of many textile factories reveals that the impact of fixed costs was cause for concern. The fact that interest on the substantial debts and accountants' and managers' high salaries were fixed costs was a matter of a great importance.[6] Hence, in the Ezcaray factory, for example, debt was double yearly sales and 16 times the profits the manager claimed to have made. In the textile factory of Segovia "there was little and contingent work and the

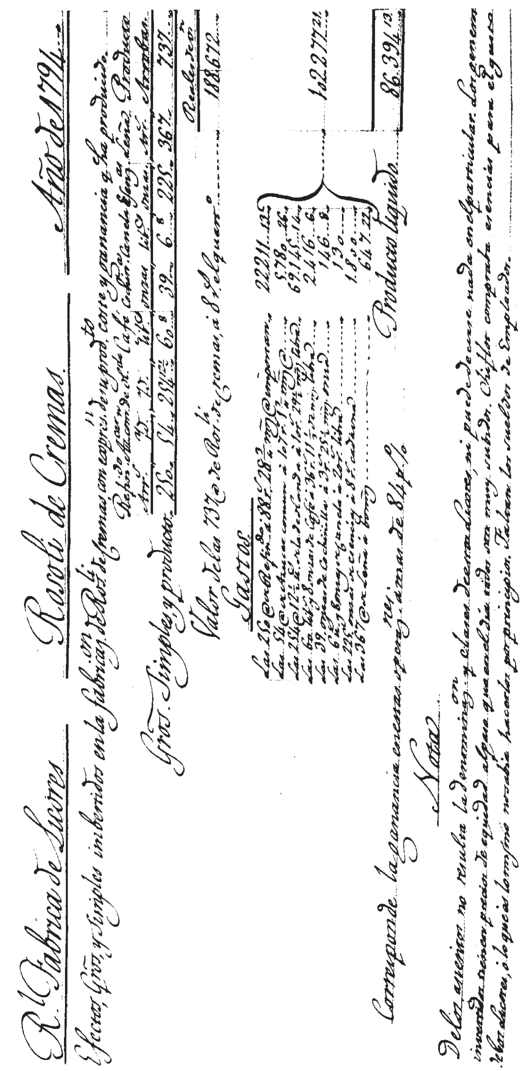
[6] In the tobacco factory, the superintendent's emoluments were 18 times higher than the workers [Gutiérrez, 1993].

fixed salaries were 13,200 reales yearly . . . Although the drapery was of superior quality, such a small amount could not have been enough to pay the salaries" [Larruga, 1794: 12, pp. 254-255].

Costing for Decision Making: Although nine of the 13 factories worked out costs and profits, we found evidence of the actual use of these calculations for decision making in only seven cases (see Table 2). Figure 2 exhibits how the textile factory of Ávila computed costs and profits for 79 different fabrics. Other docu-

FIGURE 4

Yearly Product Costing for Profitability Assessment, Royal Liqueur Factory, Madrid


R.l Fabrica de Licores
Rasoli de Cremas
Año de 1794
Gastos
Nota
Producto liquido
188.672
102.277
86.394

Source: AGS-SSSH. File 812.

FIGURE 4 (continued)

Yearly Product Costing for Profitability Assessment, Royal Liqueur Factory, Madrid

Royal Liqueur Factory, Madrid — Cream Rosolio — Year 1794

Funds and supplies invested in Cream Rosolio production, with an explanation of the production, expenses, and profit yielded.

	Refining	Ordinary Sugar	'Holland'-Type Spirit	Coffee	Cochineal	Cinnamon	Essences	Firewood	Product
	Arrobas	*Arrobas*	*Arrobas*	Pounds	Ounces	Pounds	Ounces	*Arrobas*	*Arrobas*
Supplies and products	250	54	254^12½	66^8	39	6^8	225	367	737

Reales

Value of Cream Rosolio 737 *arrobas;* 8 *reales* per *cuartillo* 188,672

Expenses

250 *arrobas* of refining, 88R 28¾ m per *arroba,* amount to . . . . . . 22,211..13
54 *arrobas* of ordinary sugar, 107R 1¾ m per *arroba* . . . . . . 5,780..26
254 *arrobas* and 12½ pounds of 'Holland' spirit 10R 29½ m per pound . . . . . . 69,145..14
66 pounds and 8 ounces of coffee, 36R 11⅓ m per pound . . . . . . 2,416..6
39 ounces of cochineal, 3R 25½ m per ounce . . . . . . 146..8
6 pounds and 8 ounces of cinnamon, 20 R per pound . . . . . . 130...
225 ounces of essences, 8R per ounce . . . . . . 1,800..
367 arrobas of firewood, 60 m per arroba . . . . . . 647..22

. . . . . . 102,277^21
Net profit . . . . . . 86,394^13

These operations yield a profit over 84%

Note
There is no information in the records on the names of the liqueurs. The supplies are valued according to a fair value, and some of them are very high. The wages of the employees are not included.

ments for the same factory revealed that these calculations were used to compare the profitability of particular products. For instance, we found a document in which the profits of eight products were compared and calculated as a percentage of cost. In the Madrid liqueur factory, the percentage profit achieved on five products was compared annually and it was revealed that margins were gradually decreasing.

Cost information was used as a basis for pricing, which, given the institutional setting described above, involved negotiations with the economic authorities. The Ezcaray and Guadalajara textile factories had trouble placing their products in the market since their production costs were higher than costs in the English textile industry. Similarly, the gunpowder monopoly used cost as a basis for pricing subcontracted gunpowder. The administrator of Rio Tinto Mines asked for the selling price of copper to be increased since "the sales income was not even enough to cover production costs" [Flores, 1983, p. 78].

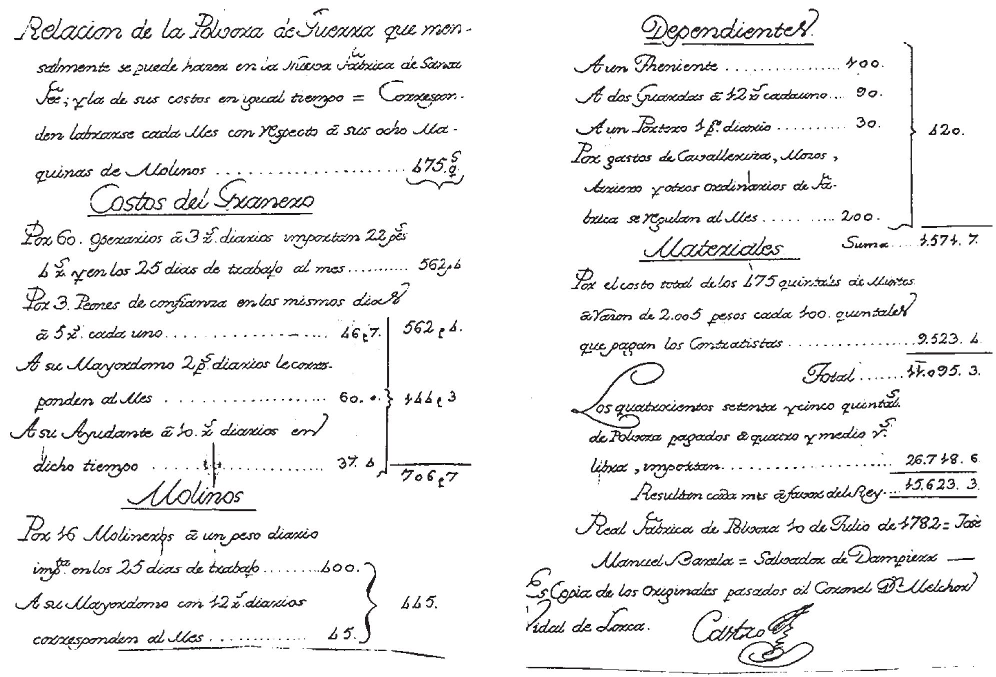
As Fleischman and Parker [1991] proposed, cost comparison was also used to assess the impact of innovations and improvements. For instance, a careful cost analysis of a new procedure that would allow production to treble was carried out at the tobacco factory, and managers studied a new sieve hung on the ceiling that would allow dispensing with 114 of the factory's laborers (almost eight percent of the staff) [Gutiérrez, 1999]. In the Rio Tinto Mines, calculations were performed on the cost of recovering rose-like copper in an oven [Flores, 1983, p. 44]. In Guadalajara, cost studies were carried out to assess the impact of a new method introduced by English craft weavers that allowed savings of various materials.

We could find no evidence that cost accounting was used to make decisions about the vertical integration of firms. Even though vertical integration did take place in many sectors, such as textiles and gunpowder, integration in the textile factories was a response to English industrial supremacy as opposed to internal economic rationality [La Force, 1965]. In many cases (such as Ezcaray or Ávila) cost studies in textile factories were aimed at asserting legitimacy by showing their profitability, when, in fact, they depended on the Royal Treasury to cover their operating costs [La Force, 1965].

Standards, Forecasts and Budgets: Five companies used standards for budgeting (see Table 2). The arsenal prepared budgets every four months and sent them to the treasury yearly. The San Fernando factory elaborated periodic budgets for the construc-

FIGURE 5

Monthly Budget of Production and Costs in the Royal Gunpowder Factory of New Spain



Relacion de la Polvora de Fuerza que men-
sualmente se puede hazer en la Nueva Fabrica de Santa
Fee; y la de sus costos en igual tiempo = Correspon-
den labrarse cada Mes con respecto à sus ocho Ma-
quinas de Molinos .... 475 q.

Costos del Granero

Por 60. Operarios à 3 r. diarios importan 22 ps.
4 r. y en los 25 dias de trabajo al mes .... 562 p 4
Por 3. Peones de confianza en los mismos dias
à 5 r. cada uno .... 46 p 7. | 562 p 4.
A su Mayordomo 2 p. diarios le corres-
ponden al Mes .... 60. • | 144 p 3
A su Ayudante à 12. r. diarios en
dicho tiempo .... 37. 4 | 706 p 7

Molinos

Por 16 Molineros à un peso diario
importan en los 25 dias de trabajo .... 400.
A su Mayordomo con 12 r. diarios
corresponden al Mes .... 45. | 445.

Dependientes

A un Theniente .... 100.
A dos Guardas à 12 r. cada uno .... 90.
A un Portero 1 p. diario .... 30. | 420.
Por gastos de Cavalleriza, Mozos,
Arrieros y otros ordinarios de Fa-
brica se regulan al Mes .... 200.
Suma 1.571. 7

Materiales

Por el costo total de los 475 quintales de Mixtos
à razon de 2.005 pesos cada 100 quintales
que pagan los Contratistas 9.523. 4
Total 11.095. 3

Los quatrocientos setenta y cinco quintales
de Polvora pagados à quatro y medio r.
libra, importan 26.718. 6
Resultan cada mes à favor del Rey 15.623. 3

Real Fabrica de Polvora 10 de Julio de 1782 = José
Manuel Barela = Salvador de Dampierre —
Es Copia de los Originales pasados al Coronel D. Melchor
Vidal de Lorca. Castro

Source: AGI, File Mexico 2216.

FIGURE 5 (continued)

Monthly Budget of Production and Costs in the Royal Gunpowder Factory of New Spain

Report on the gunpowder that could be made monthly in the new Santa Fé factory; and on its costs at the same time // Eight mills will process, *quintales*			475
Warehouse costs[9]			
60 workers, 3 *reales* daily each, amounts to 22 *pesos* and 4 *reales* and for the 25 workdays in a month		562p 4.	
3 reliable laborers for those same days, 5 *reales* each	46p 7.		
Warehouse foreman, 2 daily *pesos* amounts in a month to	60p .		
The foreman's assistant, 10 *reales* daily, in this period	37p 4.	144p 3.	
			706p 7.
Mills			
16 millers, one *peso* daily, in 25 workdays	400p .		
The foremen, 12 *reales* per day	45p .	445p .	
Shop assistants			
One Lieutenant	100		
Two guards, 12 *reales* each	90		
One concierge, 1 *peso* daily	30		
Stable, servants, muleteer, and other ordinary expenses at the factory	200	420 p	
Total			1,571 p7
Materials			
The 475 gunpowder *quintales* total cost, at the rate of 2.005 pesos each 100 *quintales*; that is what the contractors actually pay		9.523 p4	
Total			11.095 p3
Four hundred and seventy-five gunpowder *quintales*, paid at four and a half *reales* per pound, amount to			26.718 p6
Yields a monthly profit to the king			15.623 p3

Royal Gunpowder Factory, July 10, 1782. José Manuel Barela. Salvador de Dampierr. This is a copy of the original reported to Colonel Don Melchor Vidal de Lorca. Signed: Castro.

[9] Costs are expressed either in *pesos* or in *reales,* totals are expressed in *pesos.*

tion of new buildings. The Ezcaray factory computed standards and prepared budgets on annual operating costs. As Figure 5 illustrates, the gunpowder factory presented a one-month production forecast together with a budget of the costs associated with that production. The tobacco factory extrapolated the production cost of the years 1770 to 1775 in order to predict future costs [Carmona et al., 1997, p. 433].

Five other companies calculated and used standards to control inventory and reduce costs. In the case of Guadalajara, it was possible to find successive regulations containing technical and labor standards and a report about the chances of employee pay cuts [Larruga, 1794]. Other studies were conducted to estimate the savings of materials from implementing new methods. The tobacco factory established standards to improve the production of tin tobacco containers and commissioned an experiment to check the production cost. The outcome of the experiment set the norms for materials and labor used. If the daily production differed from the standard established in the experiment, then the superintendent was to be informed and that could result in the punishment of the person in charge of the tin workshop.

EARLY COST AND MANAGEMENT ACCOUNTING IN SPAIN, 1760-1800

Fleischman and Parker [1991] and other scholars have revised Pollard's [1965] contention that cost accounting for decision making was not one of the achievements of the British industrial revolution. Fleischman and Parker [1991] argue that in fact between 1760 and 1850 cost accounting practices reveal a substantial degree of sophistication and matched the information needs of entrepreneurs operating in competitive markets and facing narrow profit margins. At first sight, the findings reported in the last section of this paper provide further support for the notion that sophisticated knowledge and actual use of costing techniques existed in Spanish manufacturing in the period of nascent industrialization. For each of the analytical categories proposed by Fleischman and Parker [1991], our percentages in the Spanish survey are comparable to their results. It is really difficult to extract any conclusion from the small differences reveled in Table 2, given the fact that, arguably, the small percentage of surviving business records could bring about larger biases.

Following in-depth analysis, our conclusions on the development of particular techniques or uses of cost management are also very similar to those obtained by Fleischman and Parker. Costs were routinely controlled in some factories. We found books or cost recording sequences showing that costs were computed on a weekly basis (cigar production and San Fernando), on a monthly basis (Ávila, gunpowder factory and arsenal), and on a yearly basis (liqueur factory). Furthermore, it can be established that in several cases (tobacco, Ávila, Guadalajara and gunpowder) expenses were systematically recorded according to *Instrucciones*, i.e., governmental regulations on managerial matters. Additionally, we verified a degree of quality control, attention to materials waste, and responsibility accounting.

Regarding overhead allocation, in addition to knowledge of the importance of overheads and fixed costs, it appears that these greatly concerned contemporary analysts because of the financial problems caused by high overheads (the outcome of inefficiency and political considerations). Cost accounting was used for decision making to a similar extent as in Fleischman and Parker's [1991] sample. Cost accounting was used for pricing decisions and for innovation assessment. Interestingly, cost accounting was not used for vertical integration as in the British industrial revolution. It had different objectives: (i) it was used to rationalize the transfer of leased monopolies (gunpowder) to direct state management (a kind of nationalization); cost studies (like the one presented in Figure 5, which implied the use of standards) were aimed at evaluating the benefits that the new state-owned monopoly could yield to the Crown; (ii) in the case of the textile factories, cost accounting was also used to rationalize and negotiate the support of the Crown, in the form of financial aid, protectionism, or permission for higher prices. Finally, as in the cases examined by Fleischman and Parker [1991], standards for the Spanish manufactures were associated with the aim of controlling costs and the preparation of budgets.

Therefore, our findings fit with the assertion that sophisticated cost management was one of the achievements of early industrialization, but not necessarily of an industrial revolution. According to Wilward and Saul [1973], industrialization took place in continental Europe in the 18th century, but an industrial revolution of the British kind, characterized by entrepreneurship was not present in Spain. Continental and Spanish industrialization was characterized by governmental leadership. Thus, the evidence gathered in this survey casts doubts on the straightforward link between sophisticated cost management and entrepreneurship. Sophisticated cost management could also be a response to bureaucratization, monopolies and governmental intervention.

A number of questions arise from these findings: why did sophisticated cost accounting emerge in Spain in this particular period? Why did it emerge in the different settings of Britain and Spain? Carmona and Donoso [2004] have shown that in Spain standard costing was used for decision making (negotiation involving pricing goods in monopolies) as early as the 17th century. Carmona and Gómez [2002] have illustrated that cost control and overhead allocation were present between 1717 and 1744 in the Guadalajara textile factory, operating under medieval guilds in a pure Colbertist context [Vicens Vives, 1987]. We would argue, however, that there seems to be little room for sophisticated cost management in a production system based on guilds. Carmona and Gómez [2002] conclude that cost management at the Royal Textile Factory of Guadalajara had an *ad hoc* character.

As we explained above, what is singular in the period beginning in 1759, under King Carlos III, is the combination of enlightenment in politics, uniformity and centralization in government, and measures of economic liberalization (free trade and the curtailment of guild regulations). The power of guilds was limited not only by governmental action, but also by the development of new industries such as the cotton mills. This was an era of economic growth and industrialization in Spain that came to an end by 1800 for various reasons, as explained above, but mainly because of the loss of the colonies. Between 1760 and 1800 industrialization was associated with a growing number of larger, complex organizations. The relative scarcity of business records outside this period indicates that industrial activity before 1760 and from 1800 to 1832 had a predominately artisan character [Vicens Vives, 1987].

In accord with the findings reported in the literature and this survey we would hypothesize a common pattern of implementation of sophisticated cost management for the different organizations in Spain. This pattern is based on three features: (i) Carmona and Donoso [2004] and Carmona and Gómez [2002] reveal that there existed some knowledge of cost accounting before 1760. Subsequent sophisticated cost management in Spain appears to be linked to industrialization and to changes in the organization of production brought about by decreases in the power of guilds. (ii) Contrary to conceiving nations as discrete entities, there were substantial commercial and intellectual connections as well as technological transfers, among 18th century European countries. Thus, even though Spain did not lead industrialization, the literature and this survey shows various examples of the import of foreign skilled workers and techniques by Spanish manufactures. Arguably, as technology was transferred, cost management knowledge and practices would be transmitted among companies and travel across national boundaries. Several manufactories were run by non-Spaniards, who signed their cost exercises. (iii) Finally, the Crown played a potentially substantial role in the implementation of sophisticated costing techniques. In the case of the monopolies, direct state management was possible due to an effective administrative system, conducted by a set of trained and competent civil servants. In 1745 administrative functions in the monopolies were separated from auditing functions (performed by accountants) [Artola, 1982]. The accountants were capable bureaucrats. Both managers and accountants had to follow detailed *instrucciones* that regulated various organizational aspects of the manufactories as well as bookkeeping and costing. Similar experts applied regulations in the textile factories.

CONCLUDING REMARKS

In the last two decades, a body of literature based on the examination of surviving business records rather than instructional literature on accounting, has questioned the assumption that modern cost accounting emerged in the late 19th century. Among others, Fleischman and Parker [1991] have shown that a sophisticated knowledge and use of cost accounting was present in the pioneer companies of the British industrial revolution between 1760 and 1850. Though the theoretical approach and the implications of this body of research are contested by some critical scholars, both proponents and critics alike concede the merit in extending archival research to beyond Anglo-Saxon countries. Hoskin and Macve [2000] have outlined the theoretical and empirical pitfalls of ignoring context.

Applying Fleischman and Parker's [1991] model to Spain between 1760 and 1800, and examining primary as well as secondary sources, we have shown that a sophisticated knowledge and use of cost accounting also existed in Spain before 1800. While Fleischman and Parker [1991] examined a 90-year period (1760-1850) and we examined a 40-year period (1760-1800), it is significant that the emergence of modern cost accounting is dated at about the same time (1760) in both surveys. And whereas Fleischman and Parker [1991] studied pioneers of the industrial revolution, we surveyed a completely different institutional context, characterized by bureaucratization, monopolies and governmental intervention. Most of our Spanish companies suffered economic failure at the end of the 18th and the beginning of the 19th century.

The study suggests that an important distinction might be made between *industrialization* and *industrial revolution*. It could be said that sophisticated cost management was associated with industrialization in both the British and Spanish cases given that this entailed complex organizations and bureaucracies in the second half of the 18th century. However, costing associated with an *industrial revolution*, with its attendant entrepreneurship and competitive markets, was only present in Britain.

In sum, the evidence reported in this paper supports the view that the causes of cost accounting evolution are complex [Hopwood, 1987]. Sophisticated costing emerged as the cumulative result of economic and political reasons. Some arguments in this survey favor economic causes. For example, in the textile industry which was opened to foreign and national competition, most factories experienced increasing complexity and managers required information for decision making. Even in the case of some monopolies, management accounting was used to maximize the royal income. However, the fact that most factories were closely related to the Crown points to the significance of political factors. The advancement of national industry and attempts to increase international prestige impacted on decision making. Many factories suffered financial troubles and needed legitimacy in order to obtain financial subsidies from the Crown.

It is hoped that the findings of this study will encourage further research in this area. In particular by enlarging the number of companies studied is desirable. Some historians, such as Herr [1958] and Vicens Vives [1987] have identified a larger number of manufactures in this period, though their total is not likely to compare with the number of enterprises in the British industrial revolution. As more work is performed to identify firms with surviving records and more historians become interested in particular companies, wider cross-sectional research may uncover further evidence of cost accounting practices in 18th century Spain. In particular, the Catalonian textile industries deserve a closer inspection.

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APPENDIX 1

Checklist used to Analyze each Case

- Primary sources
- Secondary sources
- Characteristics:
  - Sector
  - Ownership of company
  - Number of workers.
  - Is responsibility for cost accounting separated from that for financial accounting?
- Cost control
  - Does the company register costs?
  - Does it compare costs?
  - Does it define responsibility centers? How many? What type?
  - Is company ownership separated from management? Geographically?
  - Raw materials inventory control
  - In-process inventory control
  - Semi-finished products inventory control
  - Finished goods inventory control
  - Is there any quality control?
- Overhead allocation
  - Does the company calculate the cost of products? How many?
  - Does it separate direct from indirect costs?
  - Does it allocate indirect costs?
  - Does it use stated criteria to allocate overhead? What criteria?
  - Does it separate variable from fixed costs? Does it consider the use of capacity?
  - Does it allocate depreciation?
- Use of costs for decision making
  - Does the company calculate unit results?
  - Does it use information to determine the profitability of different products?
  - Does it use data on costs for pricing?
  - Does it use data on costs to evaluate processes?
  - Does it use information to support vertical integration?
  - Is there any feedback about cost information?
  - Frequency of cost statements
  - The objectives of cost accounting
- Budgets and standards
  - Is there any evidence about budgeting?
  - Is there any evidence about standards?
  - Does it calculate variances from budget?
  - Does it calculate variances from standard?
  - Is there any evidence about a concern for process improvement through budgeting?
- Motivations to manage costs
  - Does the company operate in a competitive market?
  - What is the company's economic and financial situation?
  - Is the company under a protectionist policy?
- Accounting Office
  - How is the Accounting Office organized?
  - Is there any procedure (rule) for bookkeeping?

APPENDIX 2

Units of Measurement Referred to in Figures

<u>Currencies</u>

Real:	The *Real* (or *Real de Vellón*) was the main Spanish currency unit in the late 18th century. One *Real* equalled about 20 United States cents in 1792 [La Force, 1965].
Peso:	One *peso* equals 8 *reales*.
Maravedí:	One *real* equals 34 *maravedís*.

<u>Linear measures</u>

Vara:	Ancient Spanish measure that equals 0,835905 meters.
Foot:	One *vara* equals 3 Castilian feet.
Pulgada:	One Castilian foot equals 12 *pulgadas*.
Finger:	One Castilian foot equals 16 fingers.

<u>Weight measures</u>

Quintal:	One *quintal* equals 4 *arrobas* (46,025 kilograms) or 100 pounds. Plural noun *'quintales'*.
Arroba:	One *arroba* equals 11,502 kilograms.
Pound:	One *arroba* equals 25 Castilian pounds. One pound equals 460 grams or 16 ounces.
Ounce:	One *arroba* equals 400 Castilian ounces. One ounce equals 28,7 grams.

<u>Capacity measures</u>

Arroba:	The *arroba* is also a traditional measure of capacity that equals approximately 16,133 liters.
Cuartilla:	One *Arroba* equals 4 *cuartillas*.
Cuartillos:	One *Arroba* equals 32 *cuartillos*.

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CONTROL, CONFLICT AND CONCESSION: CORPORATE GOVERNANCE, ACCOUNTING AND ACCOUNTABILITY AT BIRMINGHAM SMALL ARMS, 1906-1933

Abstract: This paper takes as its starting point the relevance of a historical perspective to the study of corporate governance. Corporate governance is concerned with the institutions that influence how business corporations allocate resources and returns, and with the exercise of accountability to investors and other stakeholders. The historical model adopted is that of personal capitalism which is informed by scholars such as Chandler, and in the British context, Quail. Birmingham Small Arms, a quoted and diversified engineering company, was selected for analysis because although it was relatively large and adopted a holding company format, it retained many of the characteristics of a personal capitalist firm. Our longitudinal study of 1906 to 1933 shows that what emerged at BSA was a dominant group of directors who were eventually impelled to concede change by a sustained shareholder critique and an altered legal and business environment.

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INTRODUCTION

Research on the historical evolution of corporate governance in the UK is still at an early stage [Toms and Wilson, 2003, pp.3-4]. While there is a growing literature on this topic [Keasey et al., 1997; Hopt et al., 1998; Cheffins, 2001; Toms and Wright, 2002] it is generally the case that such discussions are not informed by detailed empirical evidence.[1] There are, however, some exceptions. An appreciation of the significance of governance to industrial administration, within a French context, was demonstrated in 1916 by Henri Fayol [1949] though it has been argued that subsequent (English) writers blurred the distinction between management and governance [Tricker, 1984, p.280] and thus the subject remained obscure in the English speaking world of business. Writing in 1984, Tricker argued that in Britain interest in the issue of corporate governance appeared to be of recent origin: "In the past there seemed little challenge to management's prerogative to run the company unimpeded, no demand for independent supervision or disclosure, no intervention in matters of accountability, no questioning of corporate power and legitimacy, little interest in involvement or participation in management decisions" [1984, p.5]. More recently, Sheikh and Chatterjee have argued that despite corporate governance being a well recognized concept in Australia, New Zealand, the USA and some European countries, "it has received hardly any attention in the UK, primarily because of the traditional view maintained by the (corporate governance) system that directors are to maximise profits for their shareholders, as the interests of the latter are paramount to directors" [1995, p.1].

Maclean [1999] has suggested that business historians are well placed to contribute to the contemporary debate on corporate governance. The long-standing concerns of business historians implicitly if not explicitly pertain to such issues. Indeed, issues such as board selection, board performance, family control, shareholder maneuvering, and the influence and regenerative potential of business elites, are all topics which might profit from systematic, closely documented, historical enquiry. Yet, Maclean argues, few of the voluminous company histories one might consult in expectation take up such themes. Nor are the pages of business/accountancy history journals replete with articles which inform the heated debate on corporate governance

[1] See, however the work of Quail [2000].

currently raging across the world [Maclean, 1999, p.109]. An important exception has been the work of John Quail who has argued that in the British case the "separate roles and prerogatives of the directors . . . led to a fixity of structure" which acted to limit the evolution of "managerial hierarchies beyond the departmental or functional level" and also restricted the growth of firms "beyond a certain size or complexity of operation" [Quail, 2000, p.2]. While there has been some recent response to this call for further research, as O'Sullivan has argued, "more empirical research is required to understand the institutions of corporate governance as they have emerged in different countries and as they have evolved and continue to change over time" [2000, p. 295]. Further, O'Sullivan argues that in the literature on corporate governance, the treatment of these issues has been too superficial, partly because much of the empirical analysis of systems of corporate governance has not been sufficiently historical or comparative. A central aim of this paper is to begin to address this shortcoming by reporting the results of an historical investigation of the governance system of an important, internationally recognized British engineering firm, Birmingham Small Arms.

DEFINING CORPORATE GOVERNANCE: THEORY AND METHODOLOGY

The empirical work of accounting and business historians is not conducted in a vacuum, and the approach in this paper is informed by a theoretical framework that is embedded in the institutional arrangements of corporate governance. Corporate governance is taken to mean a concern "with the institutions that influence how business corporations allocate resources and returns. Specifically a system of corporate governance shapes who makes investment decisions in a corporation, what type of decision they make, and how returns from investments are distributed" [O'Sullivan, 2000, p.1]. In addition corporate governance is concerned with the form, extent and quality of disclosure of 'relevant' business and financial information and the means by which directors project, articulate and justify the corporation's role as a socio-business organization. Defined in this way corporate governance is facilitated by the establishment of a system whereby directors are entrusted with responsibilities and duties in relation to the stewardship of a company's affairs. Based on a system of accountability an effective corporate governance system should provide mechanisms for regulating directors' duties in order to restrain them from abusing their powers and to ensure that they act in the best interests of the company in its broadest sense [Sheikh and Chatterjee, 1995, p.5].

Three important principles follow from the above discussion. Firstly, there is a need to distinguish between the 'management' of the company and its 'governance', whereby the latter "is not concerned with running the business of the company per se, but with the directors giving overall direction to the enterprise, overseeing and controlling the executive actions of management, and satisfying legitimate expectations for accountability and regulation by interests beyond the corporate boundary" [Sheikh and Chatterjee, 1995, p.6]. Secondly, this approach to corporate governance allows considerable scope for an extensive empirical study because it facilitates an analysis of actual governance systems and institutions. In the specific British context, the historical evolution of corporate governance is closely related to the institutional arrangements of personal capitalism. In the literature there is an important distinction between personal and managerial capitalism [see Gourvish, 1987; Chandler, 1990; Church, 1990, 1993, 1995; Supple, 1991; Lloyd-Jones and Lewis, 1994, 2000, 2003; Wilson, 1995; Quail, 2000]. Both these different styles of capitalism represent forms of control over companies and are clearly linked to the issue of corporate governance.

The business historian, closely associated with the notion of personal capitalism is A.D. Chandler jnr, who has asserted that the persistence with personal forms of control shaped the governance of British manufacturing companies into the second half of the 20th century [see Toms and Wilson, 2003, p.3]. Despite the growing challenge to Chandler's work [see Teece, 1993, pp.199-225; Wilson, 1995; John, 1997, pp.151-200] it remains the dominant paradigm [Toms and Wilson, 2003, p.3] and the notion of personal capitalism is a useful means of trying to understand the evolution of British business organization in the 20th century.

Thirdly, while the analysis of personal capitalist firms recognizes the importance of the development of common patterns of governance, such an approach necessarily places considerable emphasis on the idiosyncratic behavior of firms. It is because firms are not simply a set of transactions but can (and clearly do) build organizational capabilities not available on the market ('the way we do things here'!) [see Langlois and Robertson, 1995, ch.1] that they are idiosyncratic and consequently lend themselves to the case study approach that remains one of the key methodological frameworks of accounting/business history. This method of enquiry is also consistent with the specific historical trajectory of business development. For example, as Easterbrook and Fisher have pointed out, the permissiveness of British company law in the first half of the 20th century means that the firm can be seen as "a complex set of explicit and implicit contracts" [quoted in Monks and Minow, 2001, p. 89]. This requires a historical case study of corporate governance to look at the specific behavior and relationships of the different parties — directors, shareholders, finance providers, auditors — to the contract and raises the notion of "strategic position", which is concerned with who has the power to make the key decisions within a company [Herman, 1981, p.19]. It is also related to Nelson's proposition that what business organizations "can do well has something of a life of its own" and this applies as much to the firm's governance system as it does to its other core capabilities across the range of its business activities [1996, p.111]. In the following analysis, a wide definition of governance has been adopted which enables engagement with the broader literature as well as the detailed empirical evidence at the level of a firm.

THE CHOICE OF BSA AS A CASE STUDY

The case study explores the exercise of control and the management of conflict and concessions in an engineering company. BSA was selected for four main reasons. Firstly, BSA was a long established company. It was founded in 1861 and by the beginning of the 20th century it had gained a national reputation for the quality of its products. Secondly, it was a large company, securing a place in Britain's 100 largest manufacturing firms throughout the period under study [see Johnson, 1990, pp. 20-39; Shaw, 1990, pp. 11-12]. Thirdly, BSA was an innovative firm; it produced a range of engineering products some of which, for their time, were at the leading edge of technological development (e.g. bicycles, motor cycles and motor cars). Fourthly, and more importantly because it is directly related to corporate governance, the composition of the BSA board 1906-1933 showed different groups exercising control through what Herman has referred to as "strategic position" [1981, pp. 26-28]. That is, their status within the board gave them an authority and dominance over the types of strategic decisions that were outlined by O'Sullivan above. In particular a dominant group emerged following the company's merger with Daimler in 1910 and maintained control within the generic form of personal capitalism for the next 20 years.

The case study examines three episodes that focus on the struggle for control at BSA. The first is essentially concerned with an insider/outsider conflict between directors and shareholders, which was partially resolved by court action in 1906. The second examines the change in board composition and the consequence for the company's governance brought by BSA's merger with Daimler in 1910. The third explores a protracted dispute which extended over the 1920s and into the early 1930s between the board and shareholder dissidents, two of whom were ex-directors. The latter dispute only ended when reforms of the company's governance were apparently conceded, and there was a change in the occupants of "strategic position" at BSA when the firm experienced the leadership of four different chairmen between 1928 and 1933.

SHAREHOLDER/DIRECTOR CONFLICT: NEWTON V BSA

The *Newton v Birmingham Small Arms* court case heard in 1906 attracted wide contemporary comment in the financial press and continues to feature as a landmark. It was recognized immediately as an important decision: *The Accountant* commented that "It is some years since a legal decision has been delivered of such far-reaching importance to the profession" [14 July 1906]. Two aspects of the case are of relevance to the present paper: firstly, as an indication of the relationship between BSA directors and shareholders, and secondly, as a precedent for financial reporting, and hence for corporate governance in Great Britain for the next quarter-century. We argue that the use of secret reserves was intended to extend directors' control over BSA's assets by preventing shareholders from monitoring the annual performance of the company. It was also a portent of the increasing influence of Dudley Docker, who was to be involved in a subsequent major episode, the merger of BSA and Daimler.

The Court Case: At extraordinary meetings of the BSA shareholders in early 1906, the directors had passed a special resolution to allow them to create an "internal reserve fund" out of profits, which they could use for any purpose they thought fit. Transfers into the fund might be made in any year in which the company had paid a dividend of at least 10% on the ordinary shares and had paid all preference dividends. The auditors were to be informed of this fund and any transfers to or from it, but they were not to be permitted to disclose information about it to the shareholders, and it was not to be disclosed separately in the balance sheet. The result would be the creation of a fund about which the shareholders were not entitled to be informed.

In June 1906, Sir Alfred Newton, a shareholder, applied for an injunction to prevent the directors from implementing this resolution. He argued that the directors were acting *ultra vires*, exceeding their powers under company law and taking away the right of shareholders to knowledge of "the true position of the company" [Law Report 2 Chancery, 382, 1906]. He succeeded in his challenge, but only on the grounds that the directors might not prevent the auditors from making disclosures to shareholders. Buckley, the presiding judge, endorsed the acceptability of internal or secret reserves. The creation of such reserves had the effect of producing a balance sheet that would "shew the financial position . . . to be not as good as it in fact is. . . . (S)uch a balance-sheet will not, in my judgement, be necessarily inconsistent with the Act of Parliament" (the Companies Act, 1900) [Law Report 2 Chancery, 387, 1906]. Buckley made the assertion, which has frequently been quoted since, that "The purpose of the balance-sheet is primarily to shew that the financial position is at least as good as there stated, not to show that it is not or may not be better" [Law Report 2 Chancery, 387, 1906]. Company law protected audit, but it did not impose detailed disclosure obligations; it was up to shareholders and directors to agree the terms of the contract between them as it affected financial reporting.

Shareholders' Resistance and Directors' Victory: The directors of BSA promptly responded by calling another extraordinary general meeting to pass an altered resolution, identical to the previous one except that it did not place any restriction on the auditors' freedom to communicate with shareholders where it was their duty to do so under the Companies Act 1900. Newton and a number of his fellow-shareholders did their best to rally opposition, by letters to *The Times*, circulars to shareholders and their behavior at meetings during the year following the court case. At the meeting on 16 July 1906 to revise the special resolution, the directors' motion was defeated on a show of hands by 36 votes to 27. The majority of dissenting voters then walked out of the meeting; following which the directors resorted to a poll, according to shares held rather than show of hands. The directors had the support of the majority of the shares polled. They won by 27,983 to 95 [*The Times*, 17 July 1906].

The dissenters circularized all BSA shareholders the following week to warn them that the new resolution "will be injurious to the shareholders by keeping them in ignorance of the position of affairs" [*The Times*, 23 July 1906]. They proposed an amendment which would allow an inner reserve to be created "whenever a dividend of not less than 17½% is recommended to be paid" [*The Times*, 25 July 1906] in contrast to the 10% of the original resolution. There was "a long and heated discussion" at the meeting held on 31 July to confirm the new resolution, but the directors prevailed, by 79 votes to 42, having received 33,000 proxies in favor of the resolution and 9,000 against [*The Times*, 2 August 1906]. Newton attempted to revive the issue at BSA's annual general meeting in October, but "he was interrupted by a number of shareholders and a motion was passed that he be not heard on the subject" [*The Times*, 2 October 1906]. "Several shareholders" asked for information about the internal reserve, and were told by the chairman, Hallewell Rogers that the directors need not disclose it. *The Times* [2 October 1906] recorded "Applause and cries of 'shame'" at this, but the inner reserve was maintained in 1907 and 1908. In 1909, however, the chairman reported in the financial statements that "the Internal Reserve, amounting to £30,000, has been included with the General Reserve Fund". The directors had ceased to take advantage of the special resolution. *The Statist* [1 October 1910, p.772] noted that the secret reserve "has now received its quietus".

Although the secret reserve was short-lived, the case and its aftermath throw light on the governance of the company, and in particular on two conflicts between directors and shareholders which both reappeared more markedly in the interwar period. These were the dissatisfaction of TS Walker, leading to his resignation from the board in 1921, and the much more protracted campaign led by EM Griffiths in the 1920s and early 1930s after he left the board, and which was reinforced by complaints from numerous shareholders. We now outline the issues which, we argue, underlay these later conflicts.

Accounting Disclosure, Investors and "Speculators": The arguments put forward by both sides in *Newton v BSA* were not new. The case for accounting disclosure had always been the need for interested parties to be aware of the likely risk and return. With respect to shareholders, the counter-argument was that limited companies were potentially at the mercy of short-termists, 'speculators', who bought shares solely with a view to extracting a large dividend and then selling the shares in the depleted company. Prudent investors, by contrast, were prepared to invest for a long period, and to trust the directors' judgment. They did not require comprehensive published disclosure; if they wanted more information they would ask the directors for it. Buckley was aligning himself with this dichotomy, when he invoked the idea of prudence in support of understatement, in the opinion of which part was quoted earlier: "Assets are often, by reason of prudence, estimated, and stated to be estimated, at less than their probably real value" [Law Report 2 Chancery, 387, 1906].

Newton does not, however, appear on closer examination to have been a short-term investor, given the small size of his holding (40 shares, unlikely to yield a large short-term profit) and the pains that he took: he brought a court case, spoke at a series of meetings, circularized shareholders and made a final unsuccessful intervention at the 1906 annual general meeting. Nor was his supporter, Arthur Chamberlain, a speculator. He was a knowledgeable investor, part of a major West Midlands industrial and finance dynasty. His uncle, Herbert Chamberlain, had been BSA's Chairman from 1900 to 1904, and his cousin Neville Chamberlain was a director of BSA between 1913 and 1922. Arthur Chamberlain's reasons for opposing secret reserves were reported in *The Times* on 2 August 1906. He stated that "he did not know any limited company in which the circumstances were the same. The Small Arms Company had no private reserves for ten years, and nothing could be more satisfactory than the condition of the company during the first seven of the ten years. They had a 20% dividend. Then they came to the change of the board, and had three years of falling dividend. He found that to be coincident with the change in the membership of the board". Chamberlain was accusing the board of bringing in a secret reserve to hide their failings; in a good year, profits could be hidden to be paid out in a bad one, and shareholders had no way of monitoring the directors' actual success or failure.

The Directors' Defense: Rogers' case for the new policy on secret reserves was based on two arguments. One was a detailed defense of the profit performance of the current board (see Table 1).

He pointed out that average annual profits 1903-1905 were higher than those achieved 1896-1900 (leaving out the period of the Boer War) – £63,158 compared with £60,311 [*The Times*, 27 July 1906]. His other argument was that the creation of secret reserves was part of normal practice by respectable businesses.

TABLE 1

BSA Profits and Dividends, 1897-1909

BSA Profit	*£000*	Dividend rate
1897	88	20
1898	60	20
1899	56	20
1900	58	20
1901	88	20
1902	95	20
1903	65	15
1904	51	12½
1905	81	15
1906	74	15
1907	80	15
1908	99	15
1909	84	10

Source: *The Statist*, 1 October 1910, p.773

This was an important claim; it was made as early as February 1906 when the original resolution was tabled. A press notice by BSA pointed out that the reserve was "similar to those which are possessed by several of the leading commercial companies" [*The Times*, 22 February 1906]. Similarly, Carter, BSA's auditor, had asserted that several other companies which he had audited had used similar powers "in every case . . . to the advantage of the companies and their shareholders" [*The Times*, 2 August 1906].

BSA's Motives for Non-disclosure: One reason for the creation of secret reserves was the discretion they gave directors in disclosing performance: while useful because they could be used to prevent short-termists from bleeding the company dry, more importantly, as Chamberlain suggested, they allowed smoothing of income. This could help to ward off any expectation for higher dividends in good years, as well as depriving employees of a basis to demand wage increases. Moreover, the less shareholders knew about performance, the less scope there was for them to attack directors in bad years and hence the stronger the directors' positions. In addition, secret reserves could help with an acquisition. They meant that a potential buyer's means were not evident to the selling company, with implications for the price agreed, and they allowed the acquirer to move fast when a suitable target appeared, provided that the reserves had been invested in suitably liquid assets. BSA created the reserve a year before it acquired the Eadie Cycle Company, and ceased to use it just before its acquisition of Daimler. This would fit with the theory that the reserve was created as a means of funding diversification. With the purchase of Daimler, BSA's thirst for acquisition was temporarily assuaged: no more subsidiaries were acquired till 1919.

On this interpretation, the creation of a secret reserve at BSA was less an act of prudence than a means of empowering the directors, both to ward off criticism and to fund projects without attracting scrutiny from shareholders. This problem was not confined to BSA. Edwards [1989, p.148] comments that: "The case, which has since been described as the 'charter for the creators of secret reserves' . . . was partly responsible for secrecy, obscurity, excessive summarization and distortion becoming common features of financial reporting for the next quarter of a century". The clash at BSA in 1906 is indicative of the range of views held by shareholders. Newton and Chamberlain represented a group that took a close interest in the performance of the business and sought information in order to monitor what was going on, thus their aversion to secrecy. They were defeated by the votes of other shareholders who were prepared to tolerate secrecy provided the directors generated an adequate return on their investment. The outcome of the 1906 controversy was support for a secretive mode of governance that went without serious challenge until after the First World War. This mode of governance was typical of F.D. Docker, who used secret reserves as a means of saving for acquisitions. He was a member of the BSA board and was to become very influential in the next major episode in the development of governance at BSA.

THE CHANGING COMPOSITION OF THE BOARD: THE BSA-DAIMLER MERGER

The secret reserve episode suggests that the BSA board acted largely as a self perpetuating oligarchy, to the extent that it took decisions which primarily satisfied itself. If shareholders were dissatisfied, the board was prepared to resist them, even if this involved protracted and acrimonious dispute.[2] The secret reserve was discontinued in 1910, we would argue, not because it annoyed some shareholders, but because it was no longer needed to fund acquisitions. As the abandonment of the secret reserve policy occurred at the same juncture as the Daimler

[2] For the role of boards see Keasey et al. [1997, p.7].

merger, it is of interest to explore the strategic issues and motives underlying the merger and consider the consequences for the company's corporate governance.

Four broad conclusions may be drawn from BSA's merger with Daimler in 1910. Firstly, the merger was of key strategic importance and had significant consequences for the structure of power at the top levels of governance at BSA. Secondly, the key decisions relating to the merger were made by a dominant insider coalition, largely under the influence of Docker.[3] Thirdly, the aftermath of the merger was a shift in the locus of power in the company and "strategic position" was assumed by a triumvirate (of Rogers, Manville and Martin) who were responsible (as outlined earlier in O'Sullivan's definition of corporate governance) for the post-war strategic direction of BSA and who owed their allegiance to Docker. Fourthly, the shift in "strategic position" at BSA is indicative of the flexibility of personal capitalism as an organizational form but it is also suggestive that personal capitalism offers no guarantee of a cozy or tranquil system of governance as the dominant coalition were, subsequently, to confront a sustained challenge to their authority.[4] The following sub-sections draw on the historical evidence to explore the merger and its consequences for corporate governance at BSA.

"Strategic Position" and the Context of the Merger: 1906 was a decisive year for BSA, Sir Hallewell Rogers became Chairman and Docker joined the board. Rogers was a well established Birmingham businessman and a former Lord Mayor of the city. He had joined the BSA board in 1904 and was rapidly elevated to the chairmanship. Rogers brought to the company an expertise in finance (and no doubt was familiar with secret reserves), having been a director of the Birmingham and District Banking Company [see Davenport-Hines, 1984, p.48; 1985, pp.109-112], and it was under his leadership that BSA embarked on a determined diversification strategy. Rogers was a personal friend of Docker [see *Midland Advertiser*, 29 October 1911], and according to Sir Patrick Hannon, who was to become a BSA director and a Tory Member of Parliament, Docker "was responsible for making him chairman of BSA" [Davenport-Hines, 1985, pp.109-112].

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[3] For an exploration of the concept of the insider coalition see Herman [1981, p. 20]; Davenport-Hines [1984].

[4] For another example of challenge to personal capitalist authority see Lloyd-Jones and Lewis [2000].

Docker was a high profile business leader, not only in the Midland industrial district but also at national level. For example, he was instrumental in setting up the Federation of British Industry in 1916. Docker was also active in the National Union of Manufacturers [see Marrison, 1996, pp.326-327]. His prestige had risen sharply following the creation of the Metropolitan Carriage Wagon and Finance Company (MCWF) in 1902, a combination of five railway carriage manufacturers. Docker and the Metropolitan directors had powers to create secret reserves and by 1910 they had built up a balance of £450,000. According to Davenport-Hines [1984] such was Docker's reputation for "business infallibility" that "his expertise was sought by other businesses". He joined the board of several companies who hoped to benefit from his "general business judgement" and in other cases he was invited to play a leading role in "arranging mergers" [Davenport-Hines, 1984, pp. 32, 35, 47]. There was clearly a close personal connection between Docker and Rogers. Both were embedded in business and political networks. For example, Rogers was active in the right-wing pressure group the British Commonwealth Union, a group of which Docker happened to be President, [see Davenport-Hines, 1985, pp. 109-112; Marrison, 1996, pp. 346, 353], and what emerged at BSA from 1906 was a strong Docker-Rogers axis. Their "strategic position" at the company was further reinforced in 1907 when Lincoln Chandler, a co-director of Docker's at MCWF, joined the BSA board. Why did this powerful coalition, enjoying "strategic position", initiate the merger with Daimler?

The Merger: In 1906 BSA purchased a former Royal Small Arms Factory at Sparkbrook in Birmingham and used the facilities to enter the new and expanding motor car industry [see Church, 1995, p. 3; Saul, 1962, Thoms and Donnelly, 2002]. The decision to diversify into motor manufacture mirrored similar decisions made by other cycle firms such as Riley, Humber, Allard, Swift, Lee Francis and Singer [Lloyd-Jones and Lewis, 2000, p.40]. By 1908 BSA had developed three models but these proved not to be a business success [Nixon, n.d., p.132], and by 1909 the condition of the motor department was deteriorating sharply. In the following year a damaging internal report on the motor department's organization and performance was submitted to the board. It charged that there had been no effective cost control, the general manager had proved incapable of effective organization and had "presided over anarchy...in design, production and after sales" [Davenport-Hines, 1984, p.50; Modern Record Centre, Warwick, (hereafter MRC) Mss 19A/1/2/16-17]. Clearly the dominant coalition at BSA feared that the company's reputation could be seriously damaged. Docker took action to solve the problem of the ailing motor department by arranging a merger with Daimler. Three factors underpinned Docker's strategy. Firstly, buying in Daimler's core capabilities would act to prop-up BSA's motor car venture. Secondly, the merger appealed to Docker's penchant for financial deals and allowed him to exploit the extensive business networks he had established in the Midlands. Thirdly, Docker was impressed by Daimler's financial strength. *The Statist*, for example, sang Daimler's praises in 1906, calling attention to the company's "conservative financial management" [3 November 1906].

The merger caught the attention of the financial press. Daimler was one of Britain's largest car producers [Davenport-Hines, 1984, p.50] and *The Financial Times* commented that "the combination is one of the most important ever effected in the motor industry" [27 September 1910]. The merger was facilitated by the fact that Docker had close business, personal and political links with a number of the top management at Daimler, including its Chairman (Manville), its Managing Director (Percy Martin) and a director (George Flett). Manville had a number of business connections with Docker. Both became directors of the Metropolitan Railway and "were political adherents during the war period (1914-18) when Docker was President of the FBI and Manville led the Association of British Chambers of Commerce" [Davenport-Hines, 1984, p.51]. When Manville was elected Member of Parliament for Coventry in 1918 he received financial support from Docker's British Commonwealth Union. Marrison [1996, pp. 369-370] refers to Manville in the 1920s as "being in a close orbit to Docker". There seems little doubt that Docker coveted Daimler's expertise and financial strength and his knowledge of that company's affairs was also reinforced by the fact that George Flett, a Daimler director, also sat on the board of Docker's MCWF.[5]

The Consequence of Merger and Corporate Governance at BSA: The BSA-Daimler merger was not without controversy. Davenport-Hines has described it as an "over-tortuous scheme of

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[5] For Daimler's financial performance see Davenport-Hines [1984, p.51]; *The Financial Times* [2 September 1910]; Nixon [n.d. pp. 28-29]; *The Statist* [1 October 1910, pp. 772-774].

indebtedness, leading to over-capitalisation" [1984, p. 52]. Docker insisted that Daimler should pay BSA a dividend of £100,000 per year and there is little doubt that this seriously weakened Daimler by leaving it short of funds to develop its motor vehicle and engine capabilities. This begs the question: why did Daimler's directors agree to such a deal? This was all the more surprising given that their close business networks with Docker would have meant they would have been aware of his financial deal making. In effect a trade-off was made between the financial details of the merger and a major change in the governance of the new amalgamation, which brought a fundamental restructuring of the BSA main board. The ol' BSA directors were culled and a leaner board, mainly consisting of Docker acolytes, assumed a "strategic position" at the company. The main board was reduced from 11 to seven (four former BSA and three former Daimler directors) post merger (see Table 2).

TABLE 2

Key Players in Three Episodes

Newton v BSA 1906:
Sir A. Newton, shareholder.
Arthur Chamberlain, shareholder, nephew of Herbert Chamberlain former Chairman of BSA.
A. N. Chamberlain, Director on the BSA board, 1900-04, 1912-16 and 1918-22.
Hallewell Rogers, Chairman BSA.
F. D. Docker, Director 1906.

Daimler Merger 1910:
F.D. Docker, Director.
Hallewell Rogers, Chairman BSA.
E. Manville, Chairman Daimler, becomes Deputy Chairman BSA.
P. Martin, Managing Director Daimler, becomes Managing Director BSA.

E. M. Griffiths' criticisms, 1920-32:
T.S. Walker, Director BSA.
E.M. Griffiths, joined BSA board on acquisition of Burton, Griffiths, 1919.
A. Eadie, Director BSA.
A. N. Chamberlain, Chairman BSA Cycles to 1922.
P. Martin, Managing Director BSA.
Hallewell Rogers, Chairman BSA to 1928.
A.H. Pollen, briefly Chairman in 1932. A. Roger, Chairman from 1933.

Hallewell Rogers, Lincoln Chandler, Edward Manville and Percy Martin with Docker at the centre formed the dominant coalition. The other two directors were A.H.E. Wood, a major shareholder, and A. Eadie, who was a carry-over from the 1906 acquisition and reflected the importance of bicycles to company profits. No doubt Flett would have joined the board but he had been killed in 1910 as the result of crashing his Daimler after leaving a MCWF board meeting [Davenport-Hines, 1984, pp. 50-51].

The post-merger board was very much a Docker and Daimler affair, with the incoming directors effectively gaining strategic control of decision making at BSA as Martin became Managing Director, and Manville Deputy Chair. These two men, alongside Docker and Rogers played the dominant role in that they determined strategy and structure at the company and shaped its investment decisions. The terms of the merger deal also consolidated ownership and control at BSA, and it retained the form of a personal capitalist organization. Martin and Wood, who were two of the largest shareholders at Daimler at the time of the merger, became substantial shareholders in the re-constituted BSA [*The Statist,* 1 October 1910, pp. 772-774]. Though the holdings of the new board were not substantial enough to guarantee outright ownership, it nevertheless allowed the members of the dominant coalition, when it suited them, to argue that they were strongly identified, as a personal capitalist firm, with the interests of the company's shareholders. As Quail has pointed out, "the theoretical justification for the larger powers of . . . directors remained their role as a group of proprietors standing for the proprietors as a whole" [2000, p.3].

Docker left the board of BSA in 1912, but he did not necessarily forgo his influence on the governance of the company. He remained active behind the scenes, attended the annual meeting in 1922, reappearing as a director in 1940, and apparently orchestrating the four changes in BSA's chairmanship between 1928 and 1933 [see Davenport-Hines, 1984]. It is clear that from 1912, governance at BSA remained under the control of Rogers, Manville and Martin, and it was this triumvirate who faced and managed confrontations with a determined, knowledgeable and sustained shareholder group. This conflict is explored in the next section.

THE BOARD AND DISSIDENT DIRECTORS

In the interwar period, BSA went through two separate but related episodes of conflict between directors and shareholders. The following section of the paper considers the reactions of two dissident 'insider' investors to its poor interwar performance. We first consider T.S. Walker, who was highly critical of BSA in the early 1920s, and then E.M. Griffiths, whose relationship with the company, as a director and then a shareholder, continued until the mid-1930s. Both raised similar concerns, but Griffiths did so more persistently and vocally. The two episodes, we argue, reveal growing criticisms of the company's governance structure. These were motivated partly by its performance in the difficult interwar period, and partly by a changing set of expectations among investors. New pressures required BSA to react in new ways, and senior management had some difficulty in responding appropriately, as the very stable structure inherited from Daimler and confirmed after 1919 rendered it difficult to adapt rapidly to change.

Changes to the Group of Companies: After the end of the First World War, BSA's stated policy was that they would, in Rogers' words, "make the smallest possible range of products on the largest possible scale" [*The Economist,* 29 April 1922]. However, over the following decade the company proceeded to make acquisitions in a diverse range of industries, as summarized in Table 3.

TABLE 3

Timeline of Events at BSA, 1861-1934

1861	Company formed.
1873	Becomes private limited company.
1896	Becomes quoted limited liability company.
1906	Acquires Royal Small Arms Factory at Sparkbrook.
	F.D. Docker joins board.
	Hallewell Rogers becomes Chairman.
1906/7	Merger with Eadie Manufacturing Company, producers of bicycle components, bicycles and motor cycles.
1910	Merger with Daimler (1904) Ltd.Major board changes occur.
1918	Purchase of shares in British Abrasive Wheel.
1919	Adoption of the holding company form, BSA Cycle, Rifle and Tool departments formed into subsidiary companies.
	Three new acquisitions to the holding company made in 1919: 1) William Jessop & Co., 2) J.J. Saville & Co., both Sheffield specialist steel producers, and 3) Burton, Griffiths and Co., London machine tool merchants.
1920	Acquisition of Aircraft Manufacturing Co. and Peter Hooker Ltd (engine manufacturer).
	E.M. Griffiths' criticisms begin.
1923	Aircraft Manufacturing Co and Peter Hooker Ltd liquidated.
1928	E. Manville becomes Chairman.
1929	Arthur Andrews Ltd, machine tools merchants acquired.
1931	Lanchester Motor Co. acquired.Daimler Hire sold.
1932	In July A.H. Pollen replaces Manville as Chairman.
	In December, Sir Alexander Roger replaces Pollen.
1934	British Abrasive Wheel sold.

BSA's performance was very troubled, for a variety of reasons. One of these, clearly, was the series of economic crises of the 1920s and 1930s, affecting both industrial and consumer demand [see Buxton and Aldcroft, 1979; Glynn and Booth, 1996; Pollard, 1983]. Until the rearmament drive of the late 1930s, BSA Guns was very short of work. Demand for cars, particularly at the top end of the range, was low. In addition, the post-1919 acquisitions generated disappointing returns and also absorbed funds that might have been more profitably used elsewhere. The Sheffield steelmakers, J.J. Saville & Company and William Jessop & Company, had been acquired in the expectation that they would be intensively used in post-war reconstruction, but they did not produce the hoped-for return. The Peter Hooker Ltd and Aircraft Manufacturing Company acquisitions very rapidly proved mistakes and had to be put into liquidation within 18 months of joining the group. The Lanchester Motor Company was purchased in 1931 as a means of acquiring "a name as old as Daimler and . . . a market for high price cars" [Coventry Record Office (hereafter CRO) PA 594/4/6/2, Lanchester takeover file, letter dated 26 February 1931]. Unfortunately, the market for such cars in 1931 was not healthy, and Lanchester's contribution to the group's profitability was disappointing.

The result of poor investment decisions by BSA in relation to these acquisitions was low profitability, and the reduction or disappearance of dividends. Table 4 sets out the company's performance 1910-1939 and highlights in particular the frequent absence of the ordinary dividend, which was paid out only six times between 1920 and 1939. Table 5 gives the quoted price of the £1 ordinary share from 1918 onwards. The most striking features of this are the very rapid fall in share price in the aftermath of the War, and the fact that it remained far below par for most of the inter-war period. Ordinary shareholders who had bought before 1920 found themselves saddled with shares on which they were bound to make a loss on disposal, and which did not generate a satisfactory return. Their dissatisfaction was to be reflected in the annual general meetings of the 1930s, which are discussed below.

Management Structure: There was also a continuing and serious problem of management, at board level and below, which resulted not only in the poor investment decisions made but in muddled internal management of operations. In 1919 Hallewell Rogers had claimed that the new companies would have "separate detailed management" [CRO PA 594/1/12/3 chairman's

TABLE 4

BSA Profits and Dividends, 1910-1939

Year	BSA Profit (Loss) £000	Ordinary £000	Preference £000
1910	98	77	10
1911*	233	114	10
1912	178	114	10
1913	188	114	10
1914	190	119	10
1915	408	169	10
1916	382	231	22
1917	428	230	22
1918	435	161	22
1919 (31 July)	373	232	22
1921 (18 months to 31 Jan)	567	151	22
1922	(469)	—	21
1923	(167)	—	23
1924	125	—	24
1925	179	109	24
1926	185	134	24
1927	112	—	12
1928	72	—	24
1929	90	—	24
1930	148	106	24
1931	(204)	—	24
1932	(798)	—	—
1933	245	—	—
1934	128	—	—
1935	112	—	—
1936	171	—	39
1937	398	—	102
1938	431	204	22
1939	411	109	21

* including Daimler from 1911.

Source: Coventry Record Office, PA 594, BSA Financial Statements, 1910-1939.

TABLE 5

BSA Quoted Share Price, 1918-1939

Year	Share price	Capitalization (£000)
1918	59s 6d	3428
1919	35s	4159
1920	27s 7 d	3801
1921	12s 2d	1689
1922	7s 9d	986
1923	11s 9d	1689
1924	10s	1408
1925	14s	1971
1926	15s 9d	2252
1927	13s 9d	1943
1928	11s 4d	1548
1929	7s 6d	1056
1930	9s 6d	1379
1931	7s 6d	1056
1932	6s 3d	844
1933	5s 7d	732
1934	14s 6d	2027
1935	8s 9d	1239
1936	12s 3d	1689
1937	27s	3800
1938	19s 3d	2674
1939	25s 7d	3519

Source: *The Times,* various issues.

Note: BSA had a quotation on the London Stock Exchange from 1918 onwards. The figures here are the share price on the last trading day of March for each year, and the market capitalization of the ordinary share capital.

speech 1919]. But the resulting structure suffered from a permanent tension between the notion of separate management and apparent unwillingness to devolve power from the main board to the boards of the subsidiaries. Church [1990, p.710] describes the experience of BSA from 1918 to 1940 as one of irrelevant structural reorganizations and reshuffling of top managers under a board of directors that was mediocre despite its rapid turnover of personnel (BSA had four chairmen in the five years ending in 1932). The one fixed point was the triumvirate of Hallewell Rogers, Manville and Martin which was in place until

1932. There was continuing tension between engineers and finance/marketing management [Davenport-Hines, 1984, p.229] and a lack of co-ordination between the different subsidiaries.

T.S. Walker: Walker became a director of BSA in 1919, following the death of his father, T.F. Walker, who had served as a director for 32 years and who was Chairman 1904-06. T.S. Walker resigned from the board in December 1921. The main reason for his departure was his unhappiness with the company's performance, on three grounds, which he set out in a letter to Hallewell Rogers [CRO PA 594/2/1/59, 15 December 1921]. He was critical of "excessive expenditure" on salaries and on capital items, of staff selection policy, and most importantly, of BSA's governance structure. He wrote at the time of his resignation that his views were "fundamentally opposed to Mr Martin's schemes" in this respect ("Mr Martin" here represents the ruling group of directors).

The post-1919 structure put Manville and Martin on every subsidiary board, and Eadie and Pollen were each on two subsidiaries. There was a danger that the structure would be so centralized that the subsidiaries could not apply local knowledge and act autonomously to their own advantage. This danger was increased by the retention of financial control by the parent board. The subsidiaries were required to report upwards and be subject to main board decisions "on matters of importance and policy", and they leased their fixed assets from the parent [CRO PA594/1/1/3/58, 30 November 1928]. According to Walker, the new structure resulted in over-centralization so that senior staff at the parent company were responsible for "multifarious duties" at the subsidiaries as well. Each subsidiary should, he argued, be controlled by a managing director who was "a man of wide experience in the particular trade" and who would "give the whole of his time to the business" [CRO PA 594/2/1/59, 15 December 1921].

BSA's Response: Martin's response to Walker's criticisms was dismissive. He justified the level of expenditure; it was important not to destroy the organization at a time of "shrinkage in the market", whilst recruitment had been "on the whole extremely successful" [CRO PA 594/2/1/59, 29 December 1921]. Martin recognized that BSA's structure was the "chief fundamental difference" between Walker and himself [CRO PA 594/2/1/59, 29 December 1921]. He objected that Walker's proposal of devolving management would be unduly expensive, leading to "numerous and extravagant appointments" [CRO PA 594/2/1/59, 29 December 1921]. Martin asserted that the present structure allowed "a very efficient form of team work" [CRO PA 594/2/1/59, 29 December 1921]. His overall theme was that a large and centralized organization was crucial to BSA's success and survival: Walker's scheme of devolved authority would destroy it.

Developments after 1921 suggest that neither side in the dispute had quite understood the situation. Walker's characterization of the group as over-centralized and Martin's praise of "team work" were not borne out by the levels of intra-group trading actually achieved. A memorandum by the parent board commented that the relationship between BSA Tools and Burton Griffiths "was that of two self-contained companies . . . acting independently" [CRO PA 594/1/1/3/3, 29 February 1924]. *The Economist* of 11 May 1929 referred to attempts to promote closer working of William Jessop & Company and J.J. Saville & Company (both Sheffield- based firms) under "a common management". In 1932, the board considered the consultant Webster Jenkinson's proposal of "consolidating the subsidiary companies into a small number of groups" [MRC Mss19A1/2/56 f19]. These comments from different sources over a number of years suggest that it was recognized that the companies in the group were not in fact operating in an integrated way: common ownership had not resulted in common control of their activities. It would seem that Walker's resignation was more about the theory than the practice of governance at BSA. He overestimated the real extent of centralization in the group. It appears as if the triumvirate of Martin, Manville and Rogers was not open to discussion. In Hirschman's terminology [1970], Walker found a prompt exit a more satisfactory option than the use of voice. In this respect he differed markedly from the other dissident who we now consider, E. M. Griffiths.

E. M. Griffiths: E.M. Griffiths was, like Walker, a director who resigned from BSA in the 1920s. But unlike Walker, Griffiths continued his involvement with the company until the mid-1930s, and again unlike Walker, he did not act alone. He communicated with shareholders, both by circularizing them and by his detailed interventions at shareholders' meetings. A study of Griffiths' conflict with the company cannot thus be separated from the critical reaction of shareholders generally. Further, Griffiths is also of interest because, unlike Walker, he took seriously the role of financial reporting in corporate governance, and involved BSA's auditors in his dispute with their clients. His campaign treated the company not as an isolated problem but as part of a wider set of issues concerning the amount of information and control conceded by quoted companies to their shareholders. Griffiths was active at a time when minority shareholders were becoming more assertive. For instance the Shareholders' Protection Association was founded in October 1932 [*The Economist*, 9 September 1933, p. 499]. Griffiths was able to associate himself with a group of small investors who were not content to stay silent when dissatisfied. This was a new challenge to the personal capitalism of BSA, and it took the board some time to adjust to it.

E.M. Griffiths and Corporate Structure: E.M. Griffiths was Chairman of Burton Griffiths (a London-based machine tool sales agency) when BSA acquired it in 1919. He retained the chairmanship of his company and was also placed on the boards of BSA and BSA Tools Ltd. As a result of the acquisition Griffiths became a large shareholder in BSA: with 45,000 ordinary shares he was the third largest individual shareholder. When he resigned from his directorships between 1921 and 1922, Griffiths used his shareholding as a base from which to launch a much more comprehensive attack than T.S. Walker, on the governance and performance of the company over the next decade.

Griffiths first signaled his dissatisfaction in 1921, when he resigned from the Burton Griffiths board "as my advice was over-ruled" [CRO PA 594/2/1/59 Griffiths to Rogers, 21 February 1922]. Like T.S. Walker, he also attacked the group structure. He blamed this, rather than external economic conditions, for the poor performance as signaled by the low dividend paid out. He pointed out that the new group had duplication of services — e.g. two firms of auditors, two lawyers — as well as "other highly paid officials with non specific titles or responsibility" [CRO PA 594/2/1/59 Griffiths to Rogers, 21 February 1922]. The company, from his perspective was overwhelmed with "red tape, reports, routines &c" [CRO PA 594/2/1/59 Griffiths to Rogers, 21 February 1922]. Griffiths proposed "two more managing directors, having real knowledge and experience of the particular business they have to manage and having proper and specified responsibilities" [CRO PA 594/2/1/59 Griffiths to Rogers, 21 February 1922]. He determined to introduce more operational expertise and reduce the level of bureaucracy in the company.

Hallewell Rogers rebutted Griffiths' criticisms. The directors had thought it a "sound policy" to restrict the dividend. Griffiths had himself requested copious amounts of information; reports were in any case needed “for the general good” [CRO PA 594/2/1/59 Rogers to Griffiths, 24 February 1922]. Evidently, the board of BSA were not prepared to discuss his criticisms. Griffiths soon afterwards resigned from all his directorships, though he continued to take a very detailed interest in the company’s performance.

E.M. Griffiths and Financial Disclosure; The Role of the Auditors: In 1927, Griffiths wrote to Eadie, who had “sympathized” with him at the time of his resignation, with a list of detailed questions about the performance of the subsidiaries, including whether BSA Tools, Burton, Griffiths and Daimler Hire were profitable, how the obsolete BSA Guns plant was being valued, and how the group intended to repay its 6.5% loans [CRO PA 594/2/1/59 Griffiths to Eadie, 28 March 1927]. BSA’s reaction was initially as quietly dismissive as it had been towards Walker’s criticisms. On 13 May 1927, Martin advised him that “your questions were before us in outlining the chairman’s speech”, which had been delivered at the annual meeting on 10 May. If Griffiths read this “carefully” he would find his questions answered [CRO PA 594/2/1/59 Martin to Griffiths, 13 May 1927]. Griffiths did not find the answers, only “general allusions”, and was provoked to take the unusual step of writing to Carters, and to Touche and Company, BSA’s two firms of auditors. His argument was that “this company’s balance sheets do not give the shareholders sufficient information” and to ask that the “coming balance sheet” should be more informative [CRO PA 594/2/1/59 Griffiths to Carters, 10 December 1927].

Griffiths was reflecting a lively contemporary debate about the need for reforms of corporate accounting. The Greene Committee had been formed in 1925 to take evidence on the issue of company law reform. Modernizers strongly urged the need for financial statements to be more explicit, for publication of a profit and loss account as well as a balance sheet, and for groups of companies, like BSA, to be obliged to produce consolidated financial statements that would show the performance of the subsidiaries as well as the parent company. The idea of consolidated statements had been discussed in the U.K. since 1919, but the practice had been slow to catch on [see Edwards, 1989, pp. 225-238]. General objections from within British boardrooms were that shareholders were protected by the audit, that they could ask the directors for any information they wanted, and that compulsory disclosure was commercially damaging. BSA followed this trend. The company produced a balance sheet showing the subsidiaries in a single line as part of the parent's investments, and reported a single figure of credit to profit and loss including income from the subsidiaries. The chairman's speech to the annual meeting included commentary on the performance of the subsidiaries, but in as much or as little detail as he chose.

Griffiths' letters to the auditors provoked an immediate reaction. The two audit firms discussed a reply and also conferred with Hallewell Rogers within a week of receiving Griffith's letter. Both firms were in agreement "as to the undesirability of . . . being inveigled into a discussion with a shareholder" about the accounts [CRO PA 594/2/1/59 Carters to Touche, 11 January 1928]. These were "a matter for the discretion of the directors" and the auditors could not intervene in this [CRO PA 594/2/1/59 Carters to Touche, 16 December 1927]. But Touche also commented that they had "a good deal of sympathy" with Griffiths' proposals. BSA's balance sheet gave "practically no information about the position of the operating companies". They favored "full and frank information to shareholders" [CRO PA 594/2/1/59 Touche to Carters, 15 December 1927]. BSA was seen by professionals as being unhelpful, but company law would not compel them to be more informative, and the legal position was unchanged from Buckley's 1906 views. Carters commented that Griffiths' "attitude as an ex-director of the company is perhaps not identical with that of the average shareholder" [CRO PA 594/2/1/59 Carters to Davis n.d.], but he was taking a stance on behalf of all shareholders. His letters to the auditors were supported by references to "recent events connected with Messrs Vickers, Armstrong, Whitworth, Marconi etc" (i.e. financial scandals) which had "come out to the astonishment of shareholders and the public alike" [CRO PA 594/2/1/59 Griffiths to Carters, 3 January 1928].

From 1928 onwards Griffiths seems to have stepped up his campaign to improve BSA's communication of financial information. He may have seen the disclosure of more information as providing an incentive to better financial performance, as directors might then expect better-informed shareholders to be more vocal in their criticisms and more likely to apply pressure via their votes at the annual general meeting. In January 1928, for instance, Griffiths sent Carters a long list of suggestions for information that might be included in the annual reports [CRO PA 594/2/1/59 Griffiths to Carters, 3 January 1928]. He was also concerned with BSA's comparatively poor return on capital employed. In March 1929, he circulated the largest ordinary shareholders in BSA (those with 500 or more shares) with a letter reviewing the profit position. BSA had, over the previous 8½ years, produced an average return of 1.75% on its share capital. By comparison Rolls-Royce had paid an 8% dividend in the same period, the Enfield Cycle Company 10%, Edgar Allen and Kayser Ellison (both steel companies) 2.5% and 5% respectively [CRO PA 594/2/1/59 Griffiths to shareholders, March 1929]. Griffiths had chosen this selection of firms to mirror in the minds of the shareholders the composition of the BSA group (a prestige motor manufacturer, a respectable cycle and motor cycle company, two specialist steel firms). Obviously the background to these better results would need to be considered: how was it that the sum of BSA's parts produced worse results than one might expect from individual component companies? Griffiths had invoked a simple but stark contrast.

Over the period of Griffiths' criticisms, BSA had in fact made some voluntary concessions in relation to financial reporting. Starting from the 1928 year-end, BSA produced a 'consolidated statement' which stated the aggregated assets and liabilities of the subsidiaries. This reflected a trend in the 1920s for "a modest rate" of increase in the number of companies producing group information [see Edwards and Webb, 1984; Edwards, 1989]. BSA's statement was better than the one-line entry, but as all the reserve accounts, including profit and loss and also depreciation, were according to Griffiths "lumped together", it left the information "difficult and obscure" [CRO PA 594/2/1/59 Griffiths to Manville, 5 April 1928].

The directors were well aware of the threat that Griffiths represented. In July 1928, R. Rotherham, one of the directors of J.J. Saville & Company, wrote to Martin suggesting ways to "fight" him. One of these was to invite Griffiths to rejoin the board. If he refused, his criticisms could be ignored: if he rejoined, he would be placated [CRO PA 594/2/1/59 Rotherham memo to Martin, 18 July 1928]. This proposal suggested that the board saw the problem presented by Griffiths in outsider/insider terms. Seven years after resigning, he was no longer a well-informed insider, but a kind of unelected representative of the main body of shareholders.

The Annual General Meeting as an Outlet for Criticisms: Certainly, Griffiths contributed to some very tense annual general meetings over the next few years, and although he typified British investors as "patient oxen" [CRO PA 594/2/1/59 Rotherham memo to Martin, 18 July 1928], the BSA directors in fact had to deal with numerous shareholders' criticisms at annual meetings in the early 1930s. These included comments about the "want of energy and ability behind the directors and the management" and the need for "a body of competent business men", the donations made by BSA to Birmingham University and searching questions about the reserves [CRO PA 594/1/1/2/13 BSA meetings file 1931, TS draft of discussion following chairman's speech, pp. 21, 22-36]. The Chairman, Manville, put up a poor fight against these, finally telling one persistent questioner that "It is too complicated to explain in a few words. If you want a detailed explanation I will see you are written to" [CRO PA 594/1/1/2/13 BSA meetings file 1931, TS draft of discussion following chairman's speech, p.37]. One of the directors, Pollen, later described the meeting as a "fiasco" [CRO PA 594/2/1/2/23 Pollen to Martin, 8 December 1931].

The 1932 annual meeting, held at the nadir of BSA's fortunes, was even stormier. At this meeting, Griffiths spoke at great length. He identified himself with investors (as opposed to speculators) whom he saw as "the backbone of the company" [CRO PA 594/1/1/2/15 BSA meetings file, 15 November 1932, TS draft of discussion following chairman's speech, p.12]. A variety of other speakers also raised detailed queries about the results, and in some cases criticized the structure of the board. For example, one shareholder was critical of the appointment of a new director (Alexander Roger) who had "twenty directorates". Another thought that there were "too many directors . . . pulling the strings and getting the profits", an allusion, presumably to their fees [CRO PA 594/1/1/2/15 BSA meetings file, 15 November 1932, TS draft of discussion following chairman's speech, p.21].

The Effects of Criticism at Annual Meetings: The shareholders who spoke at annual general meetings tended to rebut Carters' suggestion quoted above that Griffiths' interests were not those of "the average shareholder". The annual meeting was a forum in which the more motivated small shareholder could make detailed and knowledgeable criticisms. It could be argued, however, that there was little they could do to make fundamental changes in the way BSA was run, and that they were an irritant rather than a threat for the board. Minority control by a block of board members meant that shareholders could not readily vote down the directors. Poor performance made the prospect of disposal of shareholdings on the market unattractive as investors would be faced with selling at a loss, and this was not a period in which a hostile takeover (offering a change of top management) would have been an option.[6] A bad-tempered annual meeting, though a trying experience for the directors, did not predict an upheaval in ownership.

The harm criticism might do, however, was in making BSA appear as a bad lending risk if news coverage and gossip spread details of a "fiasco" like the 1931 meeting. At the end of 1931 the Midland Bank threatened to withdraw its overdraft support to BSA. If the bank went ahead with this threat and the company had to agree a change in financial structure, it would require the support of shareholders at an extraordinary general meeting. Pollen commented that at any future meeting the board would need to get the "active co-operation" of ordinary shareholders [CRO PA 594/2/1/2/23 Pollen to Martin, 28 December 1931]. The reaction of the latter, he continued, "is not a pleasant kind of music to face, but it makes the whole difference if the music is of our own composition" [CRO PA 594/2/1/2/23 Pollen to Martin, 28 December 1931]. The implication was that BSA could no longer rely on bland responses or on the support of the courts: it would have to get the shareholders on its side by persuading them that the board was competent to steer the company through financial hardship.

Thus the effect of the criticisms at annual meetings was to further undermine the strategic position of the controlling triumvirate, which was already seriously threatened by the bank's increasing concern about the company's liquidity situation. This combination of shareholder and stakeholder dissatisfaction gave Docker, by now a senior member of the Midland Bank board, an opportunity to intervene again in governance at BSA. Through Docker's backroom influence, Sir Alexander Roger was appointed chair at the end of 1932, and he assembled a new regime to take BSA through the remainder of the 1930s. Shareholder and stakeholder behavior was crucial in altering board membership. The episode illustrates that personal capitalism was susceptible to challenge — what Hirschman [1970] terms the exercise of "voice" — and could be changed. Strategic position under personal capitalism had to be defended as sustained criticism could enforce concessions.

BSA's Responses to Criticism: Certainly, in the later 1930s, BSA seems to have taken a number of steps to improve shareholder

[6] See Hannah [1974, p.70] on the reasons for the rarity of takeovers before the 1950s in the UK.

opinion. The change in board composition was not the only one. The annual meetings appear to have been more carefully managed than hitherto. Whereas the annual meetings at the beginning of the 1930s seem to have been a forum in which Griffiths (and others) went on the attack and the directors stood their ground (or lost it) as best they could, the later meetings show greater planning. There was more of an attempt to take control of the event. The 1933 annual meeting was preceded by tours of the Midlands factories, a buffet lunch and a "talking film presentation" about the different cars produced by the group. Alexander Roger, the Chairman, gave a speech, the draft of which had been discussed with seven managers [CRO PA594/1/1/2/16 Meetings file, 1933]. At the 1933 annual meeting, only two questions about the financial position were asked, one with the rider "If you think that it is inopportune to answer the question I shall be quite satisfied" and another which Roger admitted he had expected and to which he had prepared a written reply [CRO PA594/1/1/2/16 Meetings file, 1933]. Roger could thus give the impression of being in control.

Two other changes reduced conflict. From 1934 onwards, the production of far more detailed consolidated accounts did much to address shareholders' concerns about disclosure. *The Accountant* praised BSA's 1934 accounts as "an excellent example of modern practice" and published them in full "for the perusal of our readers" [27 October 1934]. It did so again on 6 November 1935 and 29 October 1938. This was a remarkable reversal of the situation in the 1920s, when *The Statist* [1 May 1926] had described BSA's reluctance to disclose as "regrettable". Also pleasing for investors was the improvement in BSA's financial position, with a rather wavering return to profit from 1932 and a definite recovery, accompanied by the resumption of preference and then ordinary dividends, after 1936. Increased demand for armaments and also for cars, motor cycles and bicycles contributed, as did internal reorganization. By the annual meeting of 1938, there was a string of congratulations for the chairman's "very inspiring remarks" [CRO PA594/1/1/2/23 Meetings file, 1938]. It is debatable how far investors were swayed by the reappearance of dividends, and how far by the changes in corporate governance — financial reporting and reorganization — which suggested that they could have more of an insight into BSA's performance. The fact that the governance changes preceded the dividend resumption suggests that it was the former which were more influential.

Commentary on E.M. Griffiths' Criticisms: The pressure that Griffiths put on the company to increase its disclosure (and the response it eventually invoked) is of particular interest because it reflected the ongoing controversy during the 1920s and 1930s about the extent to which companies in Great Britain should improve their disclosure to shareholders. The Companies Act, 1929, was seen by a number of commentators as a disappointment because it did not do enough to mandate comprehensive disclosure, such as the production of consolidated financial statements and a profit and loss account. The Institute of Chartered Accountants in England and Wales stated in 1928 that shareholders who were unhappy with corporate disclosure had "the remedy to a large extent in their own hands" in that they could ask questions at annual meetings and/or stipulate that annual reports should be more informative. Hence, further legislative interference was unnecessary and indeed undesirable as this would open up companies to pressure from trades unions and others [see Maltby, 2000].

Historians of accounting and auditing have traced the transition from this hands-off stance to the much more comprehensive disclosure mandated by the Companies Act, 1947. Kitchen [1972] and Edwards [1976] chart the varying attitudes of the accounting profession to wider disclosure. The publicity given in the 1930s to the Royal Mail Steam Packet scandal increased awareness of the desirability of more informative accounts, but did not do away with the suspicion that companies would be better left to make their own independent solutions to accounting problems. Bircher [1988 and 1991] comments that the intervention of some accountants and auditors prior to the outbreak of the Second World War "produced no tangible results" [1988, p.119] and it was only the changed national mood in wartime that encouraged the formation of the Cohen Commission leading to the legislation of 1947.

Certainly companies did continue to employ accounting techniques that hid profits in good years and boosted them in bad ones. Napier [1991], for example, discusses the way in which Peninsular & Oriental Steam Navigation Company improved its results between 1915 and 1931. But it was also the case that there was willingness to use new accounting methods where these were seen as informative and helpful. Bircher [1998], Kitchen [1972] and Edwards [1976] identify companies which chose to make more explicit disclosures than the law demanded, for example at Dunlop [Edwards, 1976, p.303]. Camfferman and Zeff [2003] similarly examine the reporting practices of Unilever in the 1930s and 1940s. This is a case which suggests parallels with BSA. Although Frederick Cooper of Lever Brothers dismissed the need for consolidated balance sheets — shareholders, he said were "not entitled to know" that information — he made "significant steps" towards improving the company's reports in that period, including very detailed reporting of segmented sales and profits [Camfferman and Zeff, 2003, pp.176-178]. Cooper's aversion to consolidated accounts did not preclude wider disclosure where he thought it helpful and informative.

In the context of the accounting history of the 1930s, Griffiths' intervention suggests that BSA's directors and auditors were acting in line with certain contemporary trends. The auditors, like some of their professional colleagues, were concerned about current mandated practice but chose not to intervene where the law did not.[7] BSA was prepared to extend disclosure in order to improve relations with shareholders and to that extent Griffiths' aggressive criticisms bore fruit. BSA did so, it is argued here, because they were part of a wider debate about the need to keep shareholders informed. BSA's directors were not prepared to stick their necks out by making these disclosures in the 1920s, but they did do so in advance of legislation because they saw a chance of improving their image.

CONCLUSIONS

Personal capitalism can take a variety of forms. It is not reducible to family capitalism and in interwar Britain ranged from the small family firm to the relatively large holding company.[8] As a generic type, however, the personal capitalist business organization displays a strong linkage between ownership and control, has a limited managerial hierarchy, and tends to evolve a governance system based on the establishment of a governing group who place a high premium on loyalty, trust and stewardship as core social habits.[9]

[7] They can be contrasted with, for instance, Henry Morgan of the Society of Incorporated Accountants and Auditors, who called throughout the 1930s for improved disclosure to increase shareholders' confidence. There was support in some sections of the accounting profession for change, but by no means all accountants were swayed by it. See Maltby [2000, p.44].

[8] For the activities of personal capitalist firms in different industries see Lloyd-Jones and Lewis [2000, 2003], for the role of the holding company see Fitzgerald [2000] and Quail [2002].

[9] The notion of social habits is derived from Veblen. See Hodgson [1998, pp. 463-477]; Lloyd-Jones and Lewis [2003, pp. 230-231].

Quail's approach has been particularly informative in drawing attention to the broader aspects of personal capitalism and this sets the context for exploring the idiosyncratic patterns emerging at the firm level. Certainly at BSA the evidence suggests that there was only limited development of a managerial hierarchy. This tends to confirm Quail's view that in a proprietorial firm there is "fixity of organisational structure" which strongly embeds the personal power of directors [2000, p.2]. However, in the case of our more detailed analysis of corporate governance at BSA, the evidence demonstrates the underlying flexibility of a personal capitalist firm. A dominant coalition acquired "strategic position" at the top of the company and consolidated personal control for over two decades. However, a sustained shareholder critique created the context for major changes in the dominant group and in the form of governance by the early 1930s. Our case study suggests that "strategic position" is contingent over the long term on the capability of executive management to ensure optimal performance. It followed that the strategic positioning evolved by the triumvirate at BSA needed to be defended, and sustained criticism led to concessions and eventually to its loss of power.

The episodes explored in the paper are all instances of shifts in power, or in the acknowledgement of power. The case of Newton v BSA confirmed the ability of the directors to disclose as much or as little information as they chose, within the flexibility provided by company law. Some shareholders protested, but the majority could not be mobilized to demand more informative financial reports. This was a period when small shareholders were not likely to attempt to intervene in governance. BSA set a legal precedent and confirmed the practice of a number of other companies. But the fact the case was brought is also a reminder of the potential for conflict even at a high point, historically, of directorial power. It also indicates the importance of the close link between governance and issues of accountability.

The second episode, the Daimler merger of 1910 consolidated director power and produced the triumvirate who remained in control of the enlarged BSA group until the early 1930s. This may be seen as an exemplar of the entrenched personal capitalism of interwar British business, which has been attacked by Chandler. That is, a small group of directors who acquire "strategic position" and appeared impervious to shareholder pressure and resistant to the demands for change. The personal control of the triumvirate was embedded at BSA in the person of Dudley Docker whose strong connections with the firm led him to draw the dominant group of directors into a set of regional and national networks (during the 1920s three BSA directors were at various times Members of Parliament, including Rogers and Manville) that appeared to place them at the cutting edge of progressive business opinion. But governance, even in personal capitalist firms, cannot simply be reduced to a monolithic group of directors, and in the case of BSA, the events of the 1920s and early 1930s saw the erosion of the triumvirate's personal power as it faced sustained challenge and eventually lost the confidence of Docker.

The third episode, exploring a set of internal and external events affecting BSA in the 1920s and 1930s showed that directors could not persistently resist change. The pressures they encountered came partly from individuals with insider knowledge, such as Walker and Griffiths, and also from the body of shareholders who no longer behaved passively. As O'Sullivan has asserted, a system of corporate governance helps shape "who makes investment decisions in corporations, what type of decision they make, and how returns from investments are distributed" [2000, p.1], and in the 1920s BSA shareholders, influenced by dissidents such as Griffiths, were increasingly driven by disappointing results to question the business competence and strategic decisions of the triumvirate. Changes in the external business environment also added to the pressures faced by business leaders in firms such as BSA. For example, the Greene Committee of 1925 was a reflection of a growing post-war movement in favor of better quality accounting disclosure. The conjuncture of internal and external pressure came to a head at BSA in the "fiasco" of the 1931 annual meeting which led to the breaking up of the triumvirate (by 1932 it had lost executive control), the re-organization of the company under a new chairman, an improvement in the provision of disclosure, and a recognition of the need to respond more convincingly to shareholder questions.

While the period 1900-1950 has been described as a "golden age of directorial power" [Hannah, 1974], this study of BSA shows that the form of governance was more fluid as a dominant group of directors was forced to give way when the balance of power was shifted by sustained shareholder criticism and changes in the legal and business environment. The case also illustrates the flexibility of personal capitalist firms. At BSA, effective choices were made concerning the firm's governance and the occupation of "strategic position" was not necessarily a guarantee of directorial permanence.

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INTERFACES

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IS TIME SPENT, PASSED OR COUNTED? THE MISSING LINK BETWEEN TIME AND ACCOUNTING HISTORY

Focal Texts: H.J. Voth, *Time and Work in England, 1750-1830* (Oxford: Clarendon Press, 2000); S. de Grazia, *Of Time, Work and Leisure* (New York: The Twentieth Century Fund, 1963) and E. P. Thompson, "Time, Work-Discipline, and Industrial Capitalism," *Past and Present* (1967).

Abstract: This paper takes its inspiration from Voth's [2000] work on *Time and Work in England, 1750-1830* which argues that the British industrial revolution led to greater production levels not because of an increase in the productivity of labor but because of the larger amount of hours worked per week. This change led to a decrease of free time in favor of worked time. If this was the case, one might argue, accounting played a marginal role either in increasing the efficiency of the work force, or in disciplining the shop floor to guarantee control of the labor process. This paper argues that if accounting is to gain a crucial position in the history of economies and societies 'time' needs to be expressly posited on the agenda of accounting historians for, at the moment, it seems that the link between time and accounting history is missing. The aim of the paper is to show that if a linear, neutral and objective view of time is abandoned then the possibilities

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to study the organizational, social and even political roles of accounting will proliferate. This view is illustrated by moving from linear views of 'time' ('time spent') to more relative and constructed conceptions ('time counted').

INTRODUCTION

Hans-Joachim Voth opens his book *Time and Work in England, 1750-1830* with this interesting question: "Did the industrial revolution mark a watershed in term of time-use?" [2000, p. 1]. As Voth rightly argues, the question is interesting as it relates to a twofold set of issues. Firstly, it concerns the productivity of labor. Labor accounted for a major part of GDP during the industrial revolution,[1] and to a large extent still does. Thus understanding whether or not the development of new modes of organizing and controlling production and its outcome had an impact on productivity is a significant issue. Secondly, the question concerns broader matters of 'well being'. It is important to establish the pattern of change in the proportion of time spent at work and at leisure [Voth, 2000, p. 2].

Voth concludes his work by pointing out that:

> During the industrial revolution England began to work harder – much harder. The timing and the extent of the rise in annual hours differed by location and social group. None the less, the finding that emerges most consistently from this study is that, by the 1830s, both London and the Northern counties of England had seen a considerable increase in annual working hours. *What drove the change was not longer hours per day. Instead, changes in the number of days worked per week, and in the observance of holy days, were largely responsible for the rise in annual hours*. In London, the demise of 'St Monday'[2] and of numerous religious and political festivals were the main factors [2000, p. 268, *emphasis added*].

He continues:

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[1] It is not the aim of this essay to establish the timing roots and features of the industrial revolution, issues which have been the subject of several studies in economics as well as sociology [see Floud and McCloskey, 1981]. The main concern of this paper is with time and its relevance to accounting histories. Analogously, although it is of vital importance to understand the relationship between increases in the productivity of labor and its remuneration, this is not the aim of the current contribution [see Nyland, 1986].

[2] St Monday was the habit of taking the first day of the week off to recover from the heavy drinking which took place on weekends.

> Because annual working hours increased between the middle of the eighteenth and nineteenth centuries, GDP per hour grew more slowly than GDP per capita. A very substantial part of the increase in output was a result of extra toil and not of rising productivity . . . If our estimates of annual hours are even approximately right, *the efficiency with which the economy combined factor of production grew barely, if at all*. It is in this sense that the First Industrial Revolution was an 'industrious revolution' [Voth, 2000, pp. 271-272, *emphasis added*].

The conclusion is clear: it was the proportion of worked hours compared to those dedicated to leisure that changed, not efficiency.

This is an interesting conclusion and an 'industrious' conclusion, given the amount of archival work which the analysis required, for the issue Voth addresses is a difficult one. While data on worked hours are quite reliable after 1850 the same does not apply to the period 1750-1850, which is key to understanding work patterns during the industrial revolution [Voth, 2000, pp. 5-6]. As Kuznetz noted "the data are not adequate for testing hypotheses concerning the time patterns of growth rate" [1966, quoted in McCloskey, 1981, p. 249]. Voth manages to overcome the problem through an interesting and inventive archival study of testimonies given in court. Looking at the evidence provided by witnesses called to testify in cases of various kinds, he constructed a data set on the timing of main daily activities for the period 1750-1830 suitable for inferring the number of working hours per day, week and year.[3]

Voth's conclusion also has implications for the present, especially with regard to the second set of issues recalled above, well being. As he states, thanks to the ingenious construction of the data set "We can now contrast the period of the Industrial

[3] Voth's book is organized as follows: the first chapter illustrates the aim of the work, the second describes the method adopted in the construction and analysis of the data set, the third illustrates the pattern of time use for the period 1750-1830, the fourth analyses causes of changes in this pattern, and the fifth summarizes the arguments and draws the conclusions of the work. The book is primarily dedicated to the demonstration of the validity of the hypothesis initially stated, i.e., the increase in British GDP was due to a larger amount of worked hours rather than greater toil. In this sense, Voth's argument is simple and linear (see next section), although quite disruptive of generally accepted views on the issue.

Revolution with the present not only in terms of real income, but of time-utilization" [Voth, 2000, p. 272]. Given the possibility of this comparison, it is easy to demonstrate that "Instead of work occupying more than half of 'our' time, making a living now only requires 30 per cent of waking hours" [ibid.], so we now arguably live *better* than during the industrial revolution. We have all *progressed*.

The following section illustrates how these two sets of issues are relevant for accounting history.

Relevance of Voth's Arguments for Accounting History: The reference that Voth makes to St Monday in the quotation above is not casual. St Monday is also one of the key themes of "Time, Work-Discipline, and Industrial Capitalism" by E. P. Thompson [1967]. Thompson focused on labor discipline as the main feature of the change in work patterns during the industrial revolution. According to Thompson, one of the main features of industrial capitalism was the ability to impose a work discipline on the labor force, a discipline which homogenized and regularized work patterns, eliminating the possibility of self-organizing which had been key in the pre-industrial work organization of craftsmen and women.

Both Voth and Thompson raise issues which are very familiar to accounting historians, for they concern the role that the development and refinement of various managerial techniques (such as accounting) played in the industrial revolution and the emergence and spread of capitalism. In this respect, accounting has been linked to the emergence of modern enterprises in various ways. If one looks at this role from a theoretical (and historiographical) rather than from a strictly factual point of view, the relation can assume various connotations. Since Weber [1991], who placed accounting at the centre of rational profit calculations, studies in the area have increased. Sombart [1953] asserted that capitalism could develop only because of the possibility of rational and economic accounting calculations. Yamey [1949, 1964] questioned this relation along with the role of accounting (specifically, double entry) in decision making. This link was then emphasized by authors such as Pollard [1967], who asserted that accounting played a crucial role in supporting management by providing useful departmental cost calculations. Chandler [1977] and Chandler and Deams [1979] placed the same emphasis on accounting as a tool for efficient allocation, monitoring and coordinating financial resources within U.S. multidivisional firms [see also Johnson and Kaplan, 1987].

More recent works, such as those of Boyns and Edwards [1996, 1997], have stressed the role of accounting in making economic decisions.

Others, by contrast, view innovations in cost and management accounting as a way to control the labor process [Armstrong, 1987; Hopper and Armstrong, 1991]. Accounting's ability to establish a disciplinary regime is developed from a power-knowledge perspective in works by Hoskin and Macve [1986, 1988, 2000] and Carmona, Ezzamel and Gutiérrez [1997]. Others, such as Miller and O'Leary [1987], link the development of accounting to broader trends in economies and societies towards standardization and calculability in the efficient management of individuals. This analysis was subsequently developed by looking at the links between the spatial arrangements of the factory and the accounting calculations carried out therein [Miller and O'Leary, 1994; Carmona, Ezzamel and Gutiérrez, 2002].

This short and partial review of the literature identifies studies which are very different in terms of historiographical perspective (from realist and economic-driven interpretations to post-structuralist approaches), temporal horizons (some concern the industrial revolution others the early 20th century) and geographical areas (Europe and/or the USA). However, the review highlights wider theoretical issues. It indicates how the emergence and historical development of accounting can be explained by multifaceted and changing rationales which can be utilized to interpret and justify the role of accounting in modern economies and societies.

This brief review is also for appreciating the primary importance of Voth's findings to accounting history and to accounting studies *tout court*. For if his arguments hold, accounting would play a very limited role in organizations and societies and it would leave accounting historians (regardless of their perspective and focus) in theoretical difficulties. This is so for two reasons. The first relates to Voth's argument on efficiency. If the rise in British GDP was due to an increase in GDP per capita and not in GDP per worked hour, and if this implied the stability of labor productivity, then little scope exists for viewing accounting and management controls as having a role in increasing such productivity. It may well be that accounting played a disciplinary role as a modern power-knowledge apparatus but it had no economic impact whatsoever. To some extent accounting would be decoupled from the economic phenomena which characterized the British industrial revolution. Broadly speaking, accounting would have a very limited impact on economic matters, at least for the period under consideration.

The second set of reasons relates to the issue of well being. If time is "a good itself – it is all we have to spend" [Voth, 2000, p. 273], if time is a 'thing', an objective feature of our world and social lives, it can easily be measured and thus no room exists for accounting beyond mere recording and use of timesheets for cost allocation. Voth's argument is clear: economic production increased not for the better use of time but for a change in how time is spent; less leisure and more work. Accounting, *pace* critical accounting, would have a limited impact on organizations, society at large and the human condition if it had no impact either on the work *versus* leisure divide, or on labor conditions and productivity. Its role, and the theoretical interpretation which accounting historians could give it, would be limited to 'certifying' through recording how, from the industrial revolution onwards, the boundary between work and leisure has progressively shifted in favor of more leisure and less work.

The power of Voth's argument is its simplicity. At the centre of his analysis is the dichotomy between work and leisure in which time spent can be classified. If this classification is not questioned, it seems difficult to escape from his rigorous analysis and the little room for accounting that can be found in his story. The present paper thus intends firstly to reflect on this dichotomy. The next section illustrates how 'time' and its ubiquity are not objective and intrinsic features of human life but the result of a process of time recording which defines the object that is recorded, i.e., time itself. If one wants to recognize a role for accounting one possibility is to conceptualize this dichotomy not as given, but as the result of a process of definition which is directed towards making the difference between work and leisure clear. Time can be conceived of as a concept which is constructed thanks to the use of recording practices such as accounting.[4]

Secondly, in the section titled 'The missing link between time and accounting history', the paper speculates on the consequences for accounting history (and for accounting historians) of conceiving time not as objective but as a result of recording

[4] Other perspectives on time could have been chosen and followed (see Le Poidevin and MacBeath [1993] for a review of the debate in philosophy; Kennedy [2003] for physics; Lefebvre [1992] for geography; and Rakoff [2002] for law). However, the aim of this paper is to illustrate to accounting historians the constructed nature of time, not to review how it has been conceived of in other disciplines, not withstanding the latter's value for accounting history.

and prioritizing practices. If time is not a 'thing' but an object of processes, of definition, then a range of issues to be studiedre-emerge; for definitions, classifications and divisions are always a matter of mediation, search for agreement and ultimately, of negotiation and controversial political battles [Bowker and Star, 1999]. How the historical development of accounting techniques contributed and was intertwined with issues of prioritizing business objectives and time recording [see Loft, 1990] is an issue which powerfully re-enters the agenda of accounting historians. The arguments advanced in the paper are summarized in the conclusion together with some possible lines of investigation for taking 'time' into account in accounting histories.

IS TIME SPENT, PASSED OR COUNTED?

It is probably because time, its flowing, classification and measurement are ubiquitous [Zerubavel, 1985] that we presently consider time as a thing, time is reified [Berger and Luckmann, 1966]. Time seems the most natural and objective thing on Earth. However, as Zerubavel notes, even the most obvious of time classifications, the seven-day week, is not as plain as it may seem:

> Equating the week with a seven-day rhythm is a result of an ethnocentric bias that is challenged through an examination of the surprisingly wide variability of the week's length in different parts of the world. (Such an examination also highlights the variability of the functions of the week, from the regulation of religious or economic activity to the construction of divinatory calendars.) This comparative perspective on the weekly "beat" helps unveil its conventional nature [1985, p. 4].

Zerubavel's analysis sheds new light on the variability of the week's length across time and countries, on the various meanings that one attaches to each individual day of the week and on how modern practices, such as work patterns and discipline, help to define it all [also Sorokin and Merton, 1937]. In other words, time is a difficult concept to define [Jaques, 1982] and is often left undefined. In his work on the evolution of timekeeping technologies Landes [1983, p. 187] noted how time does not have a metaphysical ontology and still we get to know it because we have defined ways of keeping time. In a sense, time may not exist but its concept does. However, this has not always been the case and in some parts of the world it still is not the case, as the following sections illustrate.

Is Time Spent or Passed?: The activity of recording time has a long history which cannot be recalled in this brief paper.[5] Time keeping has gone through an enormous technology advance. We have moved from the sundial of Roman times to the atomic clock of the present [Landes, 1983]. We now live in an era where time has become self-evident [de Grazia, 1963] given the great accuracy of time measurement. Today, "you are considered a fool if you ask what [time] is, or doubt that it is objective, universal, irreversible, non-projectable, quantitative or set in inelastic, non compressible units" [de Grazia, 1963, p. 317]. It seems that time can be recorded in only one possible way, one which is linear and objective: clock time.

However this has not always been the case. Thompson, with respect to 'primitive' cultures, notes that:

> In Madagascar time might be measured by "a rice cooking" (about half an hour) or "the frying of a locust" (a moment). The Cross River natives were reported as saying "the man died in less than the time in which maize is not yet completely roasted" (less than fifteen minutes) [1967, p. 58, drawing on Nillson, 1920].

The following passage by Evans-Pritchard on the time consciousness of a Sudanese tribe (the Nuer), quoted by Thomspon [1967, p. 96] is another illuminating insight into different conceptions of time:

> . . . the Nuer have no expression equivalent to "time" in our language, and they cannot, therefore, as we can, speak of time as though it were something actual, which passes, can be wasted, can be saved and so forth. I do not think that they ever experience the same feeling of fighting against time or of having to co-ordinate activities with an abstract passage of time because their point of reference are the activities themselves, which are generally of a leisurely character. Events follow a logical order, but they are not controlled by an abstract system, there being no autonomous points of reference to which activities have to conform with precision. Nuer are fortunate [Evans-Pritchard, 1940, p. 103].

Generally speaking, in peasant societies, the flowing of time is not linked to the clock but to the tasks routinely carried out [Sorokin and Merton, 1937; Thompson, 1967; Landes, 1983].

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[5] Extensive analyses may be found in Cipolla [1967]; Lippincott *et al.* [1998] and Landes [1983]. See also Hassard [1990a; b].

Yet, time is by no means necessarily linear. As the etymology of the word reveals, the concept evokes the cyclical return of sea tides, a word with which 'time' shares the same root [Goody, 1968, p. 330]. Finally, a linear vision of time flowing (e.g. the passing of the years) can be combined with a cyclical view (e.g. the constant return of week days [Zerubavel 1985, p. 84]). Think of a watch, usually round although it marks time linearly.

Different ways of time keeping and time recording commonly co-exist even in the era of the atomic clock. In this respect, Zerubavel observes that there are:

> . . . a variety of ways in which the very same instant can be dated. To quote an example from fiction, "When I was a younger men – two wives ago, 250000 cigarettes ago, 3000 quart of booze ago" (Vonnegut 1963, p. 11). This is also true for time reckoning. There are an infinite number of temporal reference frameworks within which one might anchor the present – the number of days following the purchase of a bottle of milk, the day within one's menstrual cycle, and so on indefinitely [1982, pp. 1-2].

The perception of time is not as objective as it may seem [Fraisse, 1968, p. 326] and recording (and recalling) time is less so.

In the example of the Nuer, there is nothing to spend, nor is time passed or counted. The question to answer is then: how is it that we now consider time as an objective thing in order to say that it is "all we have to spend"?

With regard to this issue, it is interesting to note that spending time is an expression typical of the English language whereas, for instance, in some Latin-rooted languages 'time' is 'passed' and not 'spent' [de Grazia, 1963]. Time does not have the same connotation and attitudes toward it differ in various societies [Sorokin and Merton, 1937; Thrift, 1980]. For instance, arriving punctually for an appointment (i.e., being 'on the point', an ap-point-ment [Landes, 1983]) is considered crucial in northern European societies (e.g. by a stereotypical Englishman) but not so much in Mediterranean countries (e.g. in stereotypical Italy). Arriving late at a dinner, for instance, gives the host the possibility of preparing the meal in a more relaxed manner and the guest would not panic if trapped in a traffic jam.

This variety in attitudes goes back to the roots of the various conceptions of work and leisure across times. With regard to this the analysis carried out by de Grazia [1963] is insightful in many respects. He begins his analysis on the construction of the difference between work and leisure in ancient Greece. At that time the word leisure (at least in Aristotle) was "a condition or a state – the state of being free from the necessity to labor" [de Grazia, 1963, p. 14] and as such, it was not strictly time related. The equivalent word to 'leisure', '*schole*' was rarely contrasted with 'work'. Instead it was contrasted with 'action', which in turn, was defined as the opposite of leisure ('*aschole*', with the prefix 'a-' expressing the lack of 'schole', i.e., leisure). Analogously in Roman times, leisure was expressed as '*otium*' and its opposite was '*negotium*', that is, being occupied in affairs of varied nature, from work to war, all these activities having in common the negation of leisure (i.e., '*neg-otium*'). De Grazia also stresses how *otium* and *negotium* were interchangeable by quoting Pliny who advised "others to alternate *otium* and *negotium*: when tired of one take to the other" [1963, p. 22]. What is interesting in this etymological analysis is that in both Greek and Roman times the emphasis was on leisure rather than work, the point of reference in people's lives was the former not the latter.

But how is it that "we are now at a point were sociologists are discussing the "problem" of leisure. And a part of the problem is: how did it become a problem?" [Thompson, 1967, p. 95].

The history of seeing leisure as a problem is long[6] and marked by a few crucial steps. Firstly, the shift from the Greek to the Roman era was accompanied by the entrance of another important actor in the play of time definition – Christianity. This made the opposition *otium/negotium* more problematic. In Medieval Christianity, for instance, the emphasis was given to contemplative life (*vita contemplativa*). However, this contemplation was not for its own sake. It was an active effort to find truth and then God (an attitude, which becomes an integral part of monastic life with the Benedictines initially and with the activism of the Jesuits, later). Secondly, the *Rinascimento* marks another important step. As noted by de Grazia:

> A Calabrian friar, Tommaso Campanella, founds the imaginary *City of the Sun*, where no one works more than four hours a day. Here too everyone works . . . After work, people are free within the limits of the solar city's laws to play or to study as they wish [1963, p. 32].

Here the emphasis has already shifted from leisure to work, which becomes central to everyone's life, what rests is *free time*.

[6] The interested reader can usefully consult de Grazia [1963, pp. 11-328].

With the birth of free time, in contrast to work which 'occupies' our lives, the need for measuring the time for engaging in the activities which one likes most becomes a crucial issue [Thrift, 1980]. Once the shift has taken place, work and free time become geared to time along with the problem of measuring it. However, we need to wait until the 19th century to witness another important shift - from natural time to shared (or social) time.

This shift first occurred with the development of the national communication network for mail in Britain and the expansion of the railways [Landes, 1983; Thrift, 1980; Zerubavel, 1982]. It was the development of railway communications that revealed the need for a change from local time (related to the natural rotation of the Earth around the Sun) to a shared notion of time. As noted by Zerubavel: "if time is to be shared as an intersubjective social reality, it ought to be standardized" [1982, p. 2]. The following story is likely known by many accounting historians. The British Post Office to facilitate the control of delivery times:

> . . . started to run all its mail coaches throughout Great Britain in accordance with a uniform standard time [and since] the Royal Observatory in Greenwich was the most reliable in Britain, every mail coach guard was required to carry a timepiece indicating Greenwich mean time (GMT) . . . *This was the first attempt in history to synchronize different communities with one another* [Zerubavel, 1982, p. 6; *emphasis in original*].

This effort, which was then repeated on a larger scale in the USA, attempted to overcome the differences between local times (still tied to solar time) which were difficult to reproduce in a common timetable, given the unbearable weight that this document would have [Zerubavel, 1982]. The timetable, as much as European Community Time, became the first example of the materialization of 'social time' into a practical device. Yet, the longer the distance between the local and the social, the longer the chain of transformations that natural time needs to go through [Latour, 1987] as "it is much easier to achieve *temporal coordination* at the level of the family than at the level of the community, not to mention the city, the nation, or the entire world" [Zerubavel, 1982, p. 4, *emphasis in original*].[7]

[7] An interesting example of this chain of transformations is the complicated mediations which led to the agreement of setting the degree 0 of longitude at Greenwich which then assumed a global relevance passing through maritime customs, first, and railway innovations later [see Zerubavel, 1982, pp. 8ff].

This is just one of the many examples of synchronization which contributed to defining modernity as opposed to pre-industrial times. As Thompson noted, the first machines of the industrial revolution in Britain were built by clockmakers and the machine itself could be seen as a timekeeper, given that it set the pace of work [1967, pp. 66-70]. He also observed:

> Those who are employed experience a distinction between their employers' time and their "own" time. And the employer must *use* the time of this labour, and see it is not wasted: not the task but the value of time when reduced to money is dominant. Time is now currency: *it is not passed but spent* [Thompson, 1967, p. 61; *italics in original, underlined added*].

Thus, in the definition of our current view of time as a 'thing', as a currency that can be spent, several other 'things' need to be taken into account. These relate to religious attitudes and monastic rules, utopias, the clock, the invention of automated machines, railways, timetables and so on. The list is certainly incomplete but it illustrates that 'time spent', i.e., an objective view of time, is the least natural thing on Earth rather than the opposite. In other words, the achievement of a notion of time which is shared and objective requires the deployment of a series of techniques, technologies and beliefs which all embed subjective choices. Time recording is not a simple representation of the flowing of an objective entity, i.e., time. In this sense "time, as we know it, is a very recent invention" [Huxley, 1936/1973, p. 122; quoted in Loft, 1990, p. 13], dating back to the development of railway communication systems, it is a notion which did not exist previously, at least in the manner in which we now know it.

In this transformation, accounting may play an important albeit neglected role. For at the moment, it seems that accounting treats time as given [see Ezzamel and Robson, 1995]. Time may not exist, nor pass or even be spent, but what is probably more important is that it can certainly be produced (e.g. through counting it), especially in contemporary societies.

Time Counted: It is worthwhile quoting here a passage from Sebastian de Grazia's Work, Time and Leisure, to which this short paper is highly indebted:

> Leisure time (note how familiar is the association of leisure and time) has greatly increased today, it is said. Since free time means time off work or not related to

> work, it ought to be possible to verify or confirm this proposition. Has industrial society given more time to men [*sic*]? . . . Let time on the job, then, be considered work time. There are 168 hours to a week. If a man holds down a job of 40 hours a week, how much free time would he have – 128 hours? He would answer no. . . . An early slogan of the shorter-hour movement in the United States proclaimed "8 hours of work, 8 hours of sleep, 8 hours for all the rest." The eight-hour remainder is not at all free time, however. Instead it covers, as the phrase puts it, "all the rest" – shopping, grooming, chores, transportation, voting, making love, helping children with homework, reading the newspaper, getting the roof repaired, trying to locate the doctor, going to church, visiting relatives, and so on. Do all these activities belong to free time?
>
> We are confronted with one of the toughest problems in any statistical treatment of leisure and free time . . . It seemed that in changing from the term leisure to the term free time we had gone from a qualitative to a quantitative concept. We have now something that could be measured with ease . . . We said that free time is time off or not related to job . . . but where should time spent in a weekly visit to the relatives be put? Or time spent in going to church? There seems to be a strong sense of obligation involved here, so that even if a person wished to spend his life differently, he was not free to do so [de Grazia, 1963, pp. 64-65].

Analogously, when reading de Grazia's and Voth's books and reflecting on issues of time and accounting for this paper, I did what academics call 'doing research'; work for which I am paid (or should be paid?!). However, in the case of these two books, I am spending my time working as much as I am getting pleasure from reading them, a pleasure which indeed sounds very much as 'p-leisure'.

Thus, the issue shifts from time spent or passed to how time is classified, how it is counted, and how it is perceived. It can be perceived as worked (and then susceptible to being paid) or spent at leisure, but it is not the money received or given which should be considered as the watershed between work and leisure, a boundary difficult to draw. The case of do-it-yourself work is quite illuminating in this respect [de Grazia, 1963, pp. 73ff]. If it is not done for pleasure but to save money and to be able to pay the mortgage, then it is difficult to understand whether this is time spent at work or leisure. Although do-it-yourself activities are certainly time free from (official) work:

> How shall we classify these activities, as work or free time, and how much time do they take up? Classifying them as free time simply because they are unpaid would pass only the sleepyheads of an inefficient accounting system [de Grazia, 1963, p. 75].

People perform other work than their formal role and these activities are classified as 'free time'. Yet often they require even more toil than one's normal work. In other words, the issue shifts on how time is counted and how we account for it.

With regard to this, Latour noted:

> The obsession with calendar time makes historians sprinkle technologies with agricultural metaphors referring to maturation, slowness, obsolescence or germination, or else mechanical metaphors. . . . In fact time does not count. Time is what is counted. It is not an explanatory variable; it is a dependent variable that needs to be explained [1999, p. 88].

How then is time classified under 'worked' or 'free' categories? Contemporary societies seem to be characterized by a stratification of time [Gurvitch, 1964] which privileges 'institutional time', i.e., time devoted to work within bureaucracies, over time devoted to 'interaction' with other individuals, to relegate time devoted to the self to last place in the league [Lewis and Weigart, 1981]. A major role in this stratification and hierarchization of time is certainly played, once again, by synchronization:

> Synchronizing one's life is a public achievement which merges the unbridgeable individuality of personal existence constituted out of the embedded time with the irreducible collectiveness of social order constituted by stratified times. The synchronicity of an entire society continually recreated by the millions of multifarious actions of millions of citizens make plausible the rationality of that social order. Breakdowns, strikes, terrorist attacks, earthquakes, and other social unsynchronized events challenge the public rationality [Lewis and Weigart, 1981, pp. 451-452].

It is through this synchronism, and this search for and control of synchronism which makes individuals feel that time is a scarce resource. What is theoretically the most synchronized aspect of our life if not work? As work is carried out in constant relation to other subjects (clients, suppliers, etc.) it inevitably calls for synchronism. It is this required synchronism which makes what is synchronized prevail over other less institutionalized forms of time. Certainly it may well happen that one works in a badly organized public administration. It may well happen that some members of the family, for example children, manage to monopolize their parents' time (but this is the case only for short periods and generally they do not intentionally pursue this aim, i.e., when they are newborn). It may also happen that within families one member of the family manages to impose a kind of synchronism over another. However, the resources that s/he can devote to this synchronization are limited if confronted by those of larger networks called firms.

Certainly contemporary societies devote enormous resources to the achievement of synchronicity in order to guarantee linearity and to make it appear the most obvious thing on Earth, something which is difficult to oppose [Kirk and Mouritsen, 1996]. Think of the example of the French TGV given by Latour [1997]. The TGV is run according to a timetable which ensures passengers arrive at the train station at a certain time, trains pass certain places at a given time and so on. The TGV's synchronization is more powerful for it is linear as a rail track [Burrell, 1997] and belongs to a powerful network of train stations, railways, ticket counters, electricity power stations, clocks and timetables, which all work as a co-ordinated unity. The result is that TGV time dominates the less synchronized stratified times, and this makes the passenger feel that s/he is late and can miss the train. In a highly synchronized society, s/he cannot oppose it, either s/he takes the train *on time* or not.

Accounting has certainly been part of this picture of making time linearly shared and synchronized. But, time is currently missing from accounting despite calls to make its role visible [notably Chambers, 1989; Ezzamel and Robson, 1995; Hopwood, 1989; Loft, 1990]. While studies of disciplinarity in contemporary times [e.g. Anderson-Gough, Grey and Robson, 2001] have begun to look at this relationship, historical research does not seem to have addressed these issues. This absence is even more relevant when we consider that synchronization is one of the aspects of time in which accounting may play a role. For example, while it is plausible that the interplay between clock time and accounting can be seen as constraining and disciplining, it is less obvious how such interplay can also enable organizational creativity [Glennie and Thrift, 2002; Jones, McLean and Quattrone, 2004], and how synchronization is always subject to continuous political processes of mediation [Hopwood, 1989].

THE MISSING LINK BETWEEN TIME AND ACCOUNTING HISTORY

A quick browse of Anderson's compilation of accounting history articles [1998] published in academic journals in the years 1995-6 shows that the word 'time' appears only once in the title of the 287 articles listed. Paradoxically, the word 'future' appears more often. The word 'past' is listed too and its presence reveals the attitude to consider past, present and future as objective dots on the timeline. This example is certainly not statistically significant, but it is insightful in corroborating what Ezzamel and Robson say with respect to how "little attention has been given to the relevance of time and theories of time to accounting" [1995, p. 149]. Paraphrasing Landes [1983] many accounting works go back into accounting history but paradoxically time is absent from most of them. Despite calls to examine the relationships between time and accounting [e.g. Chambers, 1989], time still does not seem to be an issue for accounting historians, a claim which a more complete analysis of accounting history publications likely would corroborate.

What follows seeks to illustrate the considerable work which remains to be done in at least three different areas of inquiry. The first area concerns the role that accounting plays in synchronizing organizing activities (e.g. by illustrating how time-recording devices are linked to accounting records [see Loft, 1990], and creates centers of calculation [see Robson, 1991]). The second operates in the opposite direction and regards the possible role that accounting plays in de-emphasizing linear and teleological views of technologies of synchronization such as machines and clocks (e.g. by illustrating how accounting deadlines and prioritizes results in constant mediations and power struggles which allow centers of discretion [see Munro, 1999; Quattrone and Hopper, 2001, forthcoming]). The third, but by no means the last set of issues involves the role that accounting plays in defining benchmarks of varied nature in order to visualize and make tangible abstract ideas of progress (by spatializing and temporalizing [see Jones, McLean and Quattrone, 2004]). Performance measures not only make time a scarce resource but contribute to creating a seamless flow of organizational time, thus showing where the firm *was*, where it *is* and where it *could* be.

With reference to synchronization Landes noted:

> The clock is not merely a means of keeping track of the hours, but of synchronizing the actions of men.

> The clock not the steam-engine, is the key-machine of the modern industrial age . . . In its relationship to determinable quantities of energy, to standardization, to automatic action, and finally to its own special product, accurate timing, the best clock has been the foremost machine in modern techniques; and at each period it has remained in the lead: it marks a perfection toward which other machines aspire [Mumford, *Techniques and Civilization*, quoted in Landes, 1983, preface].

Analogously, de Grazia states that "people are geared to machines" [1963, p. 302] much more than they realize, and this gearing begins very early in the morning, if it is true that we get up thanks to the sound of an alarm clock. However, people are geared to time not only through machines. The synchronizing role of the clock is also played by many other modern practices which are less material although equally pervasive. One of these is certainly accounting. Accounting does synchronize (and co-ordinate through transfer prices [Chandler, 1977]), for it prioritizes and prompts action [Ezzamel and Robson, 1995]. Through reporting dates and budgeting periods, it contributes to the construction of a shared notion of time, as much as the unified timetable of British railway companies did with the GMT [Hopwood, 1989]. Accounting practices are part of the broader process of standardization [Miller and O'Leary, 1987; 1993] within economies and societies and constitute a crucial part in trends toward the establishment of modernity [Hoskin and Macve, 1986]. As noted by Loft [1990], what needs to be illustrated in greater detail is the "physical and social construction of . . . useful time in the factory, and . . . 'its coming together' with accounting in terms of the merger and elaboration together of technologies of time recording and techniques of cost accounting" [1990, p. 36]. However, how and why this merger which leads to synchronization is achieved, and above all, which organizational 'time' becomes dominant [see Quattrone and Hopper, 2001] is left at the margin of accounting history.

This lack of attention to how accounting is intertwined with other co-ordinating technologies leads to the argument that accounting has a role in defining temporal priorities and sequences of action and how processes aimed at this definition may relate to other organizational specializations and temporalizations (e.g. different views with respect to what should be done first and why). This argument opens a range of possibilities which go beyond a teleological and structuralist view of accounting and time recording as a purely and fully successful disciplining activity. In this respect, as noted by Hopwood, "the setting of temporal standards of performance is still a site for struggle and compromise. Budgets and plans still do not result in shared unproblematic notions of a temporal order and progress. Rather they serve as practices around which the temporal aspects of economic affairs are negotiated and attempts are made to actively define frequently contested notions of temporal activity" [1989, p. 1]. Budgeting is an explicit example, for it defines what should be done, when, by whom, and implicitly how. Once again accounting contributes to time stratification by making some 'times' appear more important than others. Yet budgeting is a source of interpretation, discussion, revision and, in the end, of various organizational timings (i.e., various concurrent attempts to define organizational times and priorities [Anderson-Gough, Grey and Robson, 2001; Gurvitch, 1964; Jones, McLean and Quattrone, 2004]) rather than a single shared time (i.e., a linear, univocal and objective view of what should be done and when). For example, the history of how budgeting practices have developed in various organizational and institutional settings and have been the subject of processes of mediation and given rise to political negotiation, is still to be written.

With regard to the third set of issues, the definition of the idea of progress, the role of accounting goes far beyond the already clear and pervasive synchronization examined above. Ezzamel and Robson [1995], for instance, illustrated how budgeting and planning help raise our consciousness of time as a scarce resource.[8] The stress on the scarcity of time is:

> . . . reinforced through the various mechanisms of the management control system: (i) comparison of actual results against target rates; (ii) measurement and reporting of performance variances; (iii) interactions between superiors and subordinates over performance variances; and (iv) linking variances to the corporate reward scheme. By formalizing and highlighting the importance of the rate, accounting controls not only monitor performance but also raise time consciousness (and work-related stress) by increasing the perceived scarcity of time [Ezzamel and Robson, 1995, p. 153].

[8] See also Mitchell [1934] for the government and Goody [1968] for the role of budgeting practices in giving importance to time in capitalist and in socialist economies.

Therefore, because of accounting, time is perceived as a resource and thanks to accounting we can say that we have been more efficient in its use. What is asset turnover if not the materialization of the speed at which time has passed in an accounting inscription [Latour, 1987]. Could we measure and talk of efficiency without the asset turnover ratio? Probably not. If today no one would contest that 'time is money' and that 'time is gold' (as stated by Benjamin Franklin [see Goody, 1968]), it is likely because this ratio (and the double-entry bookkeeping behind it) has made the flowing of time visible, measurable and worthy [Clark, 1985, p. 62]. Asset turnover is the accounting and business version of the clock, which is thus visualized on a sheet of paper, where business operations become apparently ordered in a clear temporal sequence (i.e., financing, investing and realizing resources).

Writing, as much as recording and accounting, is a means of giving form to the distinction between past, present and future by crystallizing oral histories or business activities in written facts which are then susceptible to further study, analysis and investigation [Goody, 1968, p. 337]. In the words of St. Augustine "From what we have said it is abundantly clear that neither the future nor the past exist . . . Some such different times do not exist in the mind, but nowhere else that I can see" [1961, p. 23, quoted in Jaques, 1982, p. 23]. Without being 'counted' [Latour, 1999] it would not be possible to see something which does not exist and therefore accounting of all kinds is developed in order to create distinctions, classifications and rankings [Bowker and Star, 1989]. Various temporal demarcations appear under the form of closing periods and are crystallized in balance sheets and income statements. Accounting is not neutral in this respect, for by setting a benchmark in time (and space [Burrell, 1992; Goody, 1968]), it allows for judgments to be made on whether the firm has progressed or not. However, this aspect seems to have been largely overlooked in historical works, with attention being devoted to the presence or absence of accounting periodization [Chambers, 1989; McSweeney, 2000].

As noted by de Grazia:

> Industrialization gives us not only work and many other good things; *it gives us the gift of leisure, that is, free time, more free time than ever* this hitherto backward old word has seen [1963, p. 87, *emphasis added*].

We are back to where we began – the issue of 'well being'.

Accounting and management controls are powerful management practices to force people to do things that they would do differently or would not do at all. How is it that 'work' has such a negative connotation that we now consider it as the opposite to time freed from it? Accounting history is another possible avenue to understanding why 'work' is now perceived as such. However, the emergence of this attitude has not yet been studied through an accounting lens. The link between accounting and well being now should be clearer. We have all *progressed* but, in making this claim, we have not considered the role that accounting has played in constructing this (illusionary) perception and, above all, how various definitions of progress may coexist, compete, win or lose.

CONCLUSIONS

This paper has sought to reflect on the relation between accounting and time in accounting history and on how abandoning the conception of time as an objective feature of organizational worlds may open up new areas of investigation in accounting history. The vehicle for this reflection has been provided by Voth's *Time and Work in England, 1750-1830* [2000], which argues that the industrial revolution in Britain led to greater production levels not from an increase in productivity of labor, but rather the greater number of hours worked per week. This change led, in turn, to a decrease in free time in favor of worked time. A likely corollary of this conclusion is that accounting played no role either in increasing the efficiency of the work force, or in disciplining the shop floor to guarantee a control of the labor process. More generally, accounting would have little role in defining the human condition and the perception of time not only in historical but also in contemporary settings.

This paper has also sought to place accounting at the centre of the issue of time by questioning the commonly held assumption that time is linear and objective – an object which can be 'spent'. It has done so by reviewing alternative views of time and focusing on the simple but intriguing idea that "time does not count. Time is what is counted" [Latour, 1999, p. 88]. Accounting is conceived as part of a broader trend towards time definition and standardization which has characterized the evolution of Western economies and societies since the early Middle Ages.

The paper has also sought implicitly to set a research agenda by highlighting some neglected issues in accounting history research. First, how the emergence of accounting as a practice has contributed not only to the synchronization of organizational activities and the definition of time boundaries and priorities in organizational actions but also allowed multiple and concurrent timings in organizations. Second, how various notions of time have contributed to shaping accounting across different times and organizational settings. Third, how political, social, religious and technical conditions which have surrounded the emergence of a standard time could have impinged upon the emergence of contemporary accounting practices.

The conditions are auspicious that time becomes an integral part of research in accounting history, rather than being treated as given. As noted by Landes:

> People have asked me how is it that so important a subject has been so little studied. I'm not sure that I know the answer; but this, I hope: that time measurement will never again be so ignored [1983, p. xv].

Let us hope that the same could happen to the missing link between time and accounting history.

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NOTICEBOARD

EDITORIAL ANNOUNCEMENT: SUBMISSIONS

Please note that from 1 July 2005 new submissions should be sent to the incoming editor:

Professor Richard K. Fleischman
Boler School of Business
John Carroll University
University Heights
OH 44118
USA

Accounting Historians Journal

Prize Winners 2004

Following a vote by the members of the editorial board, the prize for best paper in Volume 31 is awarded to:

Warwick Funnell
for his article

"Accounting and the Pursuit of Utopia: The Possibility of Perfection in Paraguay"

which appeared in the June issue.

The following authors were also highly commended:

Rob Bryer
for his article

"The Roots of Modern Capitalism: A Marxist Accounting History of the Origins and Consequences of Capitalistic Landlords in England"

which appeared in the June issue

and

Sally M. Schultz and Joan Hollister
for their article

"Single-Entry Accounting in Early America: The Accounts of the Hasbrouck Family"

which appeared in the June issue.

Academy of Accounting Historians
2005 Research Conference
jointly sponsored with
The Accounting Hall of Fame
October 6, 2005 through October 8, 2005
Columbus, Ohio, USA

The theme of the 2005 conference is **"The Accounting Profession in Transition: Historical and Contemporary Perspectives on Change."** Concurrent paper sessions will address both historical and public policy issues related to recent and continuing change in the accounting profession and its regulatory and market environment, both in the United States and around the world. In addition to **Concurrent Paper Sessions,** the program plan includes speeches by **Don Nicolaisen** (Chief Accountant of the SEC) and **Bill Gradison** (Member of the PCAOB) plus panel discussions chaired by **Art Wyatt** (University of Illinois), **Bill Kinney** (University of Texas), **Gary Previts** (Case Western Reserve University) and **Joel Demski** (University of Florida), that will provide perspectives on business reporting, auditing, public policy, and accounting education. Panelists will include senior members of accounting academe and the accounting profession. The conference will begin on Thursday evening, October 6, 2005, with a reception, and conclude on Saturday, October 8, 2005, with a luncheon. The registration form appears on the second page of this announcement.

Concurrent Paper Sessions: Papers are invited that develop historical and contemporary perspectives on the ongoing evolution of the accounting profession, including changes in business reporting, auditing, corporate governance, and international accounting. The deadline for submissions is **July 15, 2005** but earlier submissions would be appreciated. Papers should include an abstract of approximately 50 words. Papers should be sent in both paper and electronic form (the latter via e-mail if possible) to *Dan Jensen at: Jensen.7@osu.edu; Dan Jensen, Department of Accounting and MIS, Fisher College of Business, The Ohio State University, 2100 Neil Avenue, Columbus, Ohio 43210.* Papers will be reviewed for inclusion in the conference by a board of reviewers including Anil Arya of Ohio State University, Richard Fleischman of John Carroll University, Edward N. Coffman of Virginia Commonwealth University, David Dennis of Otterbein University, Ann Gabriel of Ohio University, Laura MacDonald of Wilfred Laurier University (Canada), Alan G.

Mayper of University of North Texas, James McKinney of Howard University, and Alan Reinstein of Wayne State University.

The City: Columbus is the capital of the State of Ohio. Over 1.25 million people live in the metropolitan area, one of the fastest growing in the nation. It is home to The Ohio State University and 15 other colleges and universities. It is also home to major corporations including Nationwide Insurance, American Electric Power, The Limited, and Wendy's. A typical October day in Columbus has temperatures ranging from 60-80 degrees F with light winds.

Hotel Reservations: The conference will be held at the *The Blackwell Inn* on Ohio State University's campus (2110 Tuttle Park Place at corner of Tuttle Park Place and Woodruff, Columbus, Ohio 43210). Hotel reservations should be made directly with The Blackwell (toll free: 866-247-4003; local: 614-247-4000). Indicate that you are attending the "Accounting Historians/OSU Accounting Hall of Fame Conference;" the special rate for the conference is approximately $120 per night (plus taxes). In addition, registrations can be made on-line at *http://www.theblackwell.com;* use the group code *ACCOUN1005* to receive the special rate. Valet parking service is available at the main entrance to the hotel for a nominal charge. The cutoff date for reservation requests is *Wednesday, August 31, 2005.*

Transportation from Airport: The Blackwell Inn is about 20 minutes from Port Columbus International Airport. The Blackwell operates a courtesy shuttle service. Taxi fares run about $25.

Doctoral Students: The registration fee for accounting doctoral students will be waived. In addition, four travel grants of up to $250 each are offered subject matching by the student's home institution. Details are available from Dan Jensen (614-292-2529 or Jensen.7@osu.edu).

Eleventh World Congress of Accounting Historians

NANTES (FRANCE) 19-22 JULY 2006

First Announcement
Call for Papers

Six years after the Madrid Congress in 2000, the WCAH will return to Europe, after stops in Melbourne in 2002 and St. Louis in 2004. In fact in July 2006, the Eleventh World Congress of Accounting History will take place in Nantes, and France will welcome this gathering for the first time.

Ideally situated, Nantes is only two hours from Paris by TGV (the high speed train with 20 round trips daily) and approximately two hours by plane from the majority of European Capitals. Gateway to Brittany and its ports, it is equally very close to a number of major tourist sites, such as Mont Saint-Michel, le Puy du Fou, the Futuroscope, and the "Chateaux of the Loire".

Settled over two millennia ago on the banks of the Loire, fifty kilometres from the Atlantic Ocean, Nantes was, during the middle ages, the capital of the Duchy of Bretagne. In the eighteenth century, the city became the great merchant port of the French crown, opening commercial and maritime routes of the Americas and Africa. The leading industrial shipyards of the western half of France from the nineteenth century, noted for its naval engineering and its canning industry, Nantes and the Loire estuary have developed into a leading metropolis for the service and high technology sectors. Economic capital of western France and the major French city in terms of its rate of demographic growth, Nantes draws interest not only for its economic achievements but also for its quality of life and its environment.

The Congress will take place on the campus of the University of Nantes, a few steps from the historic centre of the city and from the majority of the hotels likely to lodge congress attendees. In 1995, the *Journées d'histoire de la Comptabilité et du Management*, which takes place in France in March of each year, was organized for the first time in Nantes. The same year, the University of Nantes made a major acquisition of a collection of works dealing with accounting and its history, amassed by the Belgian Accounting Historian Ernest Stevelinck. Deceased in 20011, Ernest Stevelinck was the initiator and organiser of the first World Congress of Accounting Historians, which took place in Brussels in 1970. Holding the eleventh Congress in Nantes will therefore possess symbolic value and will be an opportunity to recognise his legacy.

Call for papers

Conference submissions can examine any aspect of the history of accounting, but the history of Nantes, the presence of the Stevelinck Collection, and the experience with the *Journées d'histoire de la Comptabilité et du Management* motivates us to encourage papers dealing with the following themes:

- Accounting and Ocean Routes: maritime trade, major commercial companies, colonialisation . . .

- 1970-2006: 36 years of accounting-history research: thematics, authors, methodologies, prospective approaches . . .
- Accounting writers: biographies, works, influence . . . privileging new research approaches and new issues . . .
- Accounting in relation to other management disciplines: strategy, management, human resources management, marketing, finance . . .
- Interdisciplinary approaches to accounting history

Manuscripts must be submitted in English, and will be reviewed by the members of the Scientific Committee. Submissions by electronic mail are acceptable.

Submissions for proposals:

The deadline for proposed manuscripts is **January 15, 2006** and should be sent to:

Yannick Lemarchand
Congress Convenor
Centre de Recherches en Gestion Nantes-Atlantique CRGNA
Faculté des Sciences économiques et de gestion
Université de Nantes
BP 52331
44322 Nantes Cedex
FRANCE
Email: wcah@sc-eco.univ-nantes.fr

Authors of accepted papers will be advised at the latest by March 15, 2006.

Further information about the Eleventh WCAH will be available progressively on the Congress website: www.iae.univ-nantes.fr/11wcah

17th Annual Conference on

Accounting, Business & Financial History

at Cardiff Business School 15-16 September 2005

Announcement of Conference

Guest Speaker – Warwick Funnell

Theoretical, empirical and review papers are welcomed in all areas of accounting, business and financial history.

The conference provides delegates with the opportunity of presenting and discussing, in an informal setting, papers ranging from early working drafts to fully developed manuscripts. The format of the conference allows approximately 40 minutes for presentation and discussion in order to help achieve worthwhile feedback from those attending.

In the past, many papers presented at Cardiff have subsequently appeared in print in Accounting, Business and Financial History, edited by John Richard (Dick) Edwards and Trevor Boyns, or in another of the full range of international, refereed academic accounting, business and economic history journals.

The conference will be held at Aberdare Hall, Cathays Park, Cardiff, CF14 3UX, UK, from lunchtime on Thursday, 15 September 2005 to mid-afternoon on Friday, 16 September 2005.

The fully inclusive conference fee (covering all meals, the conference dinner on Thursday and accommodation) is £120.

Contact Debbie Harris, Cardiff Business School, Colum Drive, Cardiff, CF10 3EU

Tel +44 (0)29 2087 5730 Fax +44 (0)29 2087 4419 Email: HarrisDL@cardiff.ac.uk

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