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Accounting Historians Journal

Volume 40
Issue 1 *June 2013*

Article 2

2013

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Feeney, Kevin (2013) "Railroad audits: Some arrived ahead of schedule," *Accounting Historians Journal*: Vol. 40 : Iss. 1 , Article 2.
Available at: https://egrove.olemiss.edu/aah_journal/vol40/iss1/2

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Accounting Historians Journal
Volume 40, Number 1
June 2013
pp. 1-26

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RAILROAD AUDITS: SOME ARRIVED AHEAD OF SCHEDULE

Abstract: Through 1975, the shareholder annual reports of publicly-owned U.S. railroads were exempt from the Securities and Exchange Commission's accounting regulations, audit and disclosure rules because railroads were common carriers subject to the rules and regulations of the Interstate Commerce Commission (ICC). Publicly-owned Class railroads voluntary began to away from ICC-type towards GAAP-type accounting and disclosures in their shareholder reports just after World War II.[1] This paper reviews early industry practices with respect to internal and external audits. Using a sample of major Class I railroads from 1946 to 1975, the paper shows: the extent to which certain railroads voluntarily presented audited financial statements before being required, the extent to which particular CPA firms were involved with the railroad industry, and the types of audit reports that issued to these railroads during this period.

INTRODUCTION

For much of the 20th century, the annual reports to shareholders of publicly-owned railroads in the U.S. were unique. While other publicly-owned corporations, including regulated electric and telephone utility companies, were required to follow the accounting regulations and the disclosure rules prescribed by the Securities and Exchange Commission (SEC) in their annual reports to shareholders, railroads were exempt.

Railroads had long been considered common carriers subject to the rules and regulations of the Interstate Commerce

Acknowledgements: The author would like to thank Richard Vangermeersh for his initial suggestion to look at railroad annual reports and for allowing access to his personal library, and also thank participants at the 10th World Congress of Accounting Historians and two anonymous referees for their comments on earlier versions of this paper. The usual disclaimer applies.

Commission (ICC). Among other things, the ICC specified the accounting used by railroads and required them to file monthly, quarterly and annual reports with the commission. The ICC's regulation of the railroads pre-dated the establishment of the SEC by almost 50 years. Congress recognized the extent of the ICC's oversight when it passed the 1933 and 1934 Securities Acts, by specifically exempting railroads and their publicly traded securities from regulation by the SEC. On the other hand, interstate utility holding companies, with subsidiaries in the electric utility and retail distribution of natural gas businesses, were subjected to direct SEC regulation under the Public Utility Holding Company Act of 1935 [Feeney, 2004].

This paper begins with a historical review of how auditing procedures were first applied to railroad accounting and their financial statements. Railroads of the mid 1800s made extensive use of internal and traveling auditors, and their reports often were included in the annual reports to shareholders. Later, when the public accounting profession developed at the end of the nineteenth century, railroads were among the first companies to utilize outside accountants to audit their books on a regular basis. Evidence is provided of an 1898 railroad audit by a CPA firm that seems to predate the acknowledged first external audit of any industrial or commercial company in the U.S. The paper also looks at the on-going efforts of the New York Stock Exchange (NYSE) to encourage railroads to voluntarily include audited financial statements in their shareholder annual reports.

Jumping ahead, the particular railroads for this study were selected from a leading investment guide from 1946. The annual reports for these 30 publicly-owned Class I railroads were then reviewed for the 1946 to 1975 time period. There were several reasons for selecting this time period. First, Feeney (2004) observed that the format and content of railroad annual reports began to change after World War II. By the mid-1970s, the composition of the railroad industry had changed dramatically through mergers, acquisitions, bankruptcies and the creation of non-rail, holding companies. The other reason for ending in 1975, is that in the following year Congress passed the *Rail Revitalization and Regulatory Reform Act of 1976* (the 4R Act), which among other things gave the SEC the authority to prescribe railroad accounting and reporting rules [Coyle, et al., 1986, p. 68].

The results of the study show the extent to which:

1) the railroads in the sample group voluntarily disclosed audited financial statements before they were

required;

2) a small group of CPA firms were responsible for most of the audits performed, and;

3) different types of audit opinions were issued.

Following the analysis of the results and the conclusions are the references for the paper. There is also an appendix showing a timeline of significant events affecting the railroad industry and its specialized accounting practices and reporting practices.

EARLY RAILROAD AUDITS

State governments began to require railroads to file annual reports early in the nineteenth century. Such filings usually were attested under oath by the president or other executive officers. At that time, the concept of an external audit just did not exist. The creation of the U.S. railroad industry predated the establishment of the public accounting profession in the United States by about half a century. However, the early railroads may have been instrumental in the development of the public accounting profession in the United States. Beginning in 1834, the British invested substantial sums in the fledgling American railroad industry. Some claim that British accountants, sent to examine the books of American railways, were responsible for the introduction of modern accounting methods into the United States. These trips began very early on, and almost every delegation of British bondholders or shareholders sent in the nineteenth century to an American railroad in financial trouble included representatives of one of the large British accountancy firms [Adler, 1970, p. 199].

European involvement with American railroads continued through much of the 19th century. For example, much of original financing for the Illinois Central Railroad in the 1850s came from English and Dutch investors. At its peak, more than 90% of the Illinois Central Railroad stock was held by European investors. As late as the years following World War I, substantial numbers of Illinois Central's shares were still traded on the London and Amsterdam exchanges. However, eventually most of these shares came back to the United States [Allston, 1992, p. 151].

Given the distances involved and the limited means of communication for that era, it is easy to imagine the railroad's annual report was the primary source of information for its European investors. Indeed, during prior research, a form letter from

the Share and Loan Department of the London Stock Exchange dated April 22, 1897 was discovered. This particular form letter was sent to an American company requesting two copies of its "report and accounts" and that the Exchange be added to the mailing list for future mailings of "reports and accounts, circulars on future issues of capital, call letters & c."

From the 1830 annual report of the Baltimore & Ohio, it is known that William Woodville was appointed as "Auditor & Superintendent of Transportation." He kept the books, and examined and certified all claims or accounts against the company, which in many respects seems more like a controllership than an audit function. By corporate charter, "auditing" was done by a committee of the Baltimore & Ohio's Board of Directors [Previts and Samson, 2000, p. 24]. By the mid-19th century, appointment of internal auditors among railroads was well established. Early railroad annual reports generally listed officers holding the titles of general auditor, traveling auditor, and assistant auditor. The reports often contained statements by these officials related to the amounts so reported. Previts and Merino, in their comprehensive work, *History of Accounting in the United States* (1998), said it was common to find internal audit reports in railroad annual reports to shareholders before 1860. They also mentioned perhaps the first use of external accountants by the New Haven Railroad in 1854 to investigate fraud.

Some examples of these internal audit reports in the latter part of the 19th century were observed in this study from:

- Baltimore & Ohio Railroad: beginning in the 1880s, its reports included the following statement by the railroad's comptroller that "the General Balance Sheet presents an accurate and true statement of the accounts" as of the given date. A similarly worded statement accompanied the Baltimore & Ohio's balance sheets in its annual reports through the 1950s.
- Michigan Central Railroad: its June 30, 1869, report contained a statement by the auditor saying he found the books to be correctly kept and supported by proper vouchers;
- Northern Pacific Railroad: its June 30, 1885, report had a transmittal statement for the accounts from the general auditor;
- New York, New Haven & Hartford Railroad: its Sept. 30, 1889, report had a joint attestation by its two internal auditors saying the accounts were cor-

> rect and that the trial balance presented by the treasurer was a true statement of the balances of his accounts on that day.

It is not known with certainty when the first external audit report appeared in a railroad annual report. The earliest audit report seen by this writer was one from Haskins & Sells, dated Nov. 28, 1898, that appeared in the Reading Company report for the unusual period of Dec. 1, 1896 to June 30, 1898. This period covered the railroad's creation and its initial operations. This audit report, shown in Exhibit 1, may not just be the first audit report for a railroad, but also could be one of the first audit reports by a CPA firm for any American company as well! Another very early railroad audit report seen by this writer was the one that appeared in the Baltimore & Ohio's 1900 Annual Report, which was that company's 74th report.[1]

EXHIBIT 1

NOVEMBER 28, 1898.

JOSEPH S. HARRIS, ESQ.,
President Reading Company.

We have examined the books and accounts of the Reading Company, the Philadelphia and Reading Railway Company and the Philadelphia and Reading Coal and Iron Company for the period from December 1, 1896, to June 30, 1898. We certify that the statements of Income for the several Companies for the period named, submitted herewith, agree with the books of the several Companies, and are correct; that the Balance Sheets correctly set forth the financial condition of the Companies as of the date June 30, 1898, and that the renewals of the roads, structures and equipments of the Railway Company and the Coal and Iron Company have, during that period, been charged to operating expenses, and that the value of the equipment has been fully maintained.

(Signed) HASKINS & SELLS,
Certified Public Accountants.

Although the various Companies Acts in Britain had, since the 1840s, required company audits there, a similar requirement did not develop in the United States until well into the 20th century. Cochrane [1984] dates the first U.S. audit reports to *about* 1900. However, Boockholdt [1978] quotes James Don Edwards, author of *History of Public Accounting in the United States* [1960], as saying the first railroad audit was done by Price Waterhouse & Company of the Norfolk & Western Railroad[2] after it

[1] The ICC long classified railroads into several classes. As of 1946, Class I was for railroads with annual revenues of $1 million or more. The annual revenue requirement increased during the period of study.

was placed into receivership in 1895. If this audit was disclosed in the annual report, this may well be the earliest one for any company. King [1998] said that one of the first sets of annual financial statements accompanied by an independent auditor's report was the U.S. Steel annual report from 1903.[3] Yet, Previts and Merino [1998, p. 224] show the audited condensed balance sheet for U.S. Steel Corp. from December 31, 1902. Perhaps, this paper can clear some of the confusion as to the first public company in the U.S. to issue audited financial statements.

IMPACT OF THE NYSE

One non-governmental body did impact the appearance of audited financial statements in railroad shareholder reports, and that was the NYSE. The NYSE has long listed the corporations whose securities were the most widely held by the American public. Railroads were among the first companies to have their stock listed on the Exchange.[4] In the 1870s, railroads were the hot stocks just as "Dot-Coms" were the hot stocks at the end of the 20th century. Tremendous over speculation in railroad stocks resulted in the Panic of 1873, which closed the NYSE for ten days [NYSE, 2004]. Railroads continued to dominate the NYSE listings until the 1910s when the number of listed industrials finally exceeded the number of railroad stocks. In 1920, 131 railroads were listed, but by 1963, there were only 58 railroads and manufacturers of railroad equipment listed on the Exchange [Foulke, 1968, pp. 26-27].

It will be shown later that all of the railroads selected for this study were listed on the NYSE during the period of study. The NYSE also had a long history of being a positive force in the improvement of accounting disclosures to investors in listed companies [Chatfield and Vangermeersch, 1996, p. 434]. A NYSE [1938] document described the actions taken, beginning in 1930, by its "Committee on Stock List" with respect to audit reports:

- Feb. 17, 1930: - Directed that all future applications

[2] It emerged from bankruptcy the next year as the reorganized Norfolk & Western *Railway*.

[3] Richard Vangermeersch had a complete collection of U.S. Steel annual reports. He showed this writer the audit certificate was in U.S. Steel's 1902 report, which was dated in 1903. This seems to be the 1903 report to which King referred.

[4] While this study focuses on annual reports to shareholders, it should be noted the railroad bonds were also listed on the NYSE as early as the 1850s. Until 1868, railroads were the only bonds listed. In 1900, there were 879 bond issues listed on the NYSE and 86 percent were railroad issues [Foulke, 1968, p. 237].

for listing should contain auditor's certificate.

- March 2, 1931: - Consulted the Committee on Cooperation with Stock Exchanges regarding the scope of auditor's certificates.
- April, 1932: Decided to require, on an informal basis and for a trial period that companies applying for listing provide either audited statements or an agreement to issue future annual reports in the audited form.
- Jan. 6, 1933: - Publicly announced new requirements with respect to audits. Effective July 1, 1933, all applications for listing had to be accompanied by the certificate of qualified independent accountants or the agreement that future reports would be so audited.
- Jan. 31, 1931: - Sent letter to all listed companies asking them to request their auditor to give the Exchange detailed information about the scope and character of their audit.
- Oct. 24, 1933: - Recommended that the basic audit report or certificate be more informative and more clearly understood by investors.
- Jan. 1934: - Recommended, in conjunction with the American Institute of Accountants, that a uniform form of auditor's certificate accompany financial statements and annual reports in listing applications.

While these efforts may have been a self-serving attempt to stave off some form of governmental regulation resulting from the 1929 stock market crash [Previts and Merino 1998, p. 276], they nevertheless resulted in more companies having audited financial statements in their annual reports.

The actions taken above primarily affected newly listed companies and those applying for listing, but it also applied to existing listed companies applying to list another issue(s) of stock. This was the normal practice of the NYSE. By incorporating the new requirements as listed corporations made the application to list additional securities, the effect of the new requirement became cumulative [Foulke, 1968, p. 619]. However, in this case, the NYSE strongly encouraged all industrial companies to be audited. By 1933, more than 90% of the listed industrial companies were audited, but with railroads and banks

it seemed to be a different situation.

It seems that the requirements noted on above may not have had any impact on railroads because they were already listed on the Exchange and were not listing new issues of stock during the period of study. The NYSE later had a voluntary program encouraging railroads to have their financials audited as well. By 1969, all but one (N&W) listed railroad went along with the recommended practice [NYSE, 1969]. Elizabeth Weinmann, a leading transportation analyst on Wall Street in the 1960s, believed that audited financial statements should be required for all railroads [RSMA, 1967, p. 59]. Her view was not new. In a series of articles that appeared in *Journal of Accountancy* in 1906 and 1907, Thomas Warner Mitchell said that the importance of an independent audit of railway accounts cannot be overemphasized [Brief, 1986]. Apparently, little had changed in the intervening 60 years!

The AICPA's Railroad Accounting Committee in 1956 noted that audit opinions usually stated that the railroad financial statements were in conformity with ICC accounting requirements, but failed to note that most of them were unaudited. The audit opinions seen in the earlier part of the period of study were often qualified or contained explanatory paragraphs because of the railroad's treatment of specific items, such as deferred taxes, depreciation, and prior period adjustments. It should also be noted that during the period of study, the accounting profession itself made several changes to the standard form of the audit opinion.

AUDITED FINANCIAL STATEMENTS

Far from trivial, the issue of presenting audited railroad financial statements represents rich subject matter, significant in its own right. Looking at this issue in terms of present day practice, it is hard to believe that during the 1946 to 1975 period (and earlier) no law or regulation required publicly-owned railroads to include audited financial statements in their shareholder annual reports. Like almost everything else in the shareholder annual reports, this practice has its origins with the ICC, which did not require its *Annual Report Form A* to be audited. It did require that answers be "specific and true, and correct" and that the Form be made out under a sworn oath by the officer who controlled the railroad's accounting. An officer found guilty of making a false entry, or filing a false report, could be subjected to civil fines and/or imprisonment.

An example of officer verification from the New York Central's 1960 *Annual Report Form A* is shown on Exhibit 2. Amazingly, the form and intent of this document is almost identical to the certification that is now required under Section *404* of the Sarbanes-Oxley Act of 2002.

EXHIBIT 2

Atchison, Topeka and Santa Fe Railyway
1963 Annual Report

1963 533

VERIFICATION

The foregoing report must be verified by the oath of the officer having control of the accounting of the respondent. It should be verified, also, by the oath of the president or other chief officer of the respondent, unless the respondent states on the last preceding page of this report that such chief officer has no control over the accounting of the respondent. The oath required may be taken before any person authorized to administer an oath by the laws of the State in which the same is taken.

OATH
(To be made by the officer having control of the accounting of the respondent)

State of Illinois
County of Cook } ss:

W. G. Hunt (Insert here the name of the affiant) makes oath and says that he is Vice President and General Auditor (Insert here the official title of the affiant)

of The Atchison, Topeka and Santa Fe Railway Company (Insert here the exact legal title or name of the respondent)

that it is his duty to have supervision over the books of account of the respondent and to control the manner in which such books are kept; that he knows that such books have, during the period covered by the foregoing report, been kept in good faith in accordance with the accounting and other orders of the Interstate Commerce Commission, effective during the said period; that he has carefully examined the said report and to the best of his knowledge and belief the entries contained in the said report have, so far as they relate to matters of account, been accurately taken from the said books of account and are in exact accordance therewith; that he believes that all other statements of fact contained in the said report are true, and that the said report is a correct and complete statement of the business and affairs of the above-named respondent during the period of time from and including January 1, 19 63, to and including December 31, 19 63

(Signed) W. G. Hunt
(Signature of affiant)

Subscribed and sworn to before me, a Notary Public, in and for the State and county above named, this ____ day of March, 19 64
My commission expires November 24, 1966 [Use an L. S. impression seal]

(Signed) E. H. Ekes
(Signature of officer authorized to administer oaths)

SUPPLEMENTAL OATH
(By the president or other chief officer of the respondent)

State of Illinois
County of Cook } ss:

E. S. Marsh (Insert here the name of the affiant) makes oath and says that he is President and Chief Executive Officer (Insert here the official title of the affiant)

of The Atchison, Topeka and Santa Fe Railway Company (Insert here the exact legal title or name of the respondent)

that he has carefully examined the foregoing report; that he believes that all statements of fact contained in the said report are true, and that the said report is a correct and complete statement of the business and affairs of the above-named respondent and the operations of its property during the period of time from and including January 1, 19 63, to and including December 31, 19 63

(Signed) E. S. Marsh
(Signature of affiant)

Subscribed and sworn to before me, a Notary Public, in and for the State and county above named, this ____ day of March, 19 64
My commission expires November 24, 1966 [Use an L. S. impression seal]

(Signed) E. H. Ekes
(Signature of officer authorized to administer oaths)

Railroad Corporations—Operating—A. 113

While the ICC practice was at odds with the normal audit requirements of the SEC for commercial or industrial companies, it was similar to the procedures followed by the IRS and certain government regulatory agencies with other required filings. On a Federal income tax return, the filer affirms, under the penalties of perjury, that to the best of their knowledge and belief, the return is true, correct and complete. A similar affirmation is applied to other regulatory filings made to the Federal and state governmental agencies. Any auditing when necessary was done by the IRS or the actual governmental agency involved. The ICC's Bureau of Accounts was authorized to examine the accounting books and records for each reporting carrier. This power was exercised through its field examiners who examined the books and records of the railroads from time to time in much the same way that bank examiners undertook their inspections [Henry, 1941, p.379].

From annual reports in this writer's personal collection, it was first seen that some railroads (Chicago & Eastern Illinois and Chesapeake & Ohio) had audited financial statements as early as 1946, and others still did not have them as late as 1967 (Southern) or 1968 (Norfolk & Western). Interestingly, Southern and Norfolk & Western represented two of the five companies in the sample group that survived as solvent, publicly-owned railroads.[5] Also when the audit opinion was not included, it was observed that the railroad's financial statements were not marked as "unaudited."

One alternative explanation for not having an audit report was considered. It was certainly possible that a railroad's financial statements were audited, but that it chose not to disclose the audit in the annual report, since it was not required. If this actually occurred, it would seem to be irrational behavior by the railroad and its management. The cost of the audit would have been a significant expense to the railroad, and it would have cost virtually nothing more to have included the audit opinion in the annual report. Presumably, there would have been a direct benefit to the company from the audit in terms of reasonable assurance on the reliability of the financial statements, taken as a whole, as well as from any management letter comments from the CPA firm for improving the railroad's accounting procedures

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[5] Southern and Norfolk & Western were among the last publicly-owned **Class I** railroads. Eventually, the two companies merged in 1982 and shareholders from both lines received stock in **Norfolk Southern Corporation**, a non-rail holding company.

and internal controls.

By not having an audit, was the railroad saying that the tangible cost of having one exceeded the intangible benefits from one? Shareholders too presumably would have benefited from audited financial statements, which would have given them a potential means of evaluating their own investment decisions and reducing the unsystematic risk associated with those decisions. Unfortunately, since there is no depository or central source for audit reports, and since the most of the railroad companies involved are virtually all long out of existence, there is no way to verify if, in fact, any audits were made and simply not disclosed.

Another analogous situation in another industry has some relevance to the railroad audit issue. The U.S. banking industry was also long regulated by federal and state governments and banks, like railroads, was initially exempted from SEC accounting and audit requirements. During the period of study, there were both national banks and state chartered banks. National banks were regulated by the U.S. Controller of the Currency, which conducted regular examinations similar to CPA audits. State-chartered banks were regulated by their respective state banking departments, and also by the Federal Reserve Bank, if they were a member of that organization. Publicly-owned national banks or national associations were also not required to have audited financial statements in their annual reports through the 1960s, although some chose to be audited on a voluntary basis. External CPA audits were not required because it was deemed that the examinations conducted[6] by the Controller of the Currency as well as the special Directors' examinations were sufficient. During the period of study, most bank stocks traded in the Over-the-Counter market, although some major money center banks were listed on the NYSE. It was not till 1969 that the NYSE adopted a requirement that all banks coming onto the Exchange have audited financial statements.

Hagerman [1972] found it interesting that some banks chose voluntarily to be audited, allowing for testing of the value of the audit.[7] He found evidence to suggest that the audit report itself may contain information. However, further analysis showed that the audits by CPA firms did not reduce the stock price dispersion or increase the liquidity of bank stocks.

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[6] These audits were conducted on a surprise basis.

[7] This writer was an undergraduate at the University of Rochester when this Ph.D. dissertation was written and actually assisted in the data collection.

This study also identified the outside auditor, when an audit was disclosed. During the period of study, the public accounting profession was dominated by eight, very large CPA firms. Each of the "Big Eight," as they were then commonly referred to, had their own standardized auditing procedures and recommended accounting practices.[8] Firm procedures and practice played a much more important role then because GAAP was not as developed as it is today, or even 25 years ago. Through technical reviews as well as the adherence to certain specialized firm practices, a CPA firm would be expected to treat the financial statements of two companies in the same industry in the same way. As an example, U.S. Steel and Bethlehem Steel both had the same auditor, Price Waterhouse for many years. Bitter [1995, p. 20] found that the audit certificates issued by Price Waterhouse, to both steelmakers, were quite similar over the years. He also found that changes made to the two certificates were consistent over time and that both companies received exactly the same explanatory paragraphs describing uncertainties due to World War II in 1942 and 1943. This writer was a party to the discussion that followed the presentation of Bitter's paper in 1995, and in that discussion, it was suggested that Price Waterhouse was directly responsible for certain shared accounting procedures and disclosures that were observed.

RAILROADS OF INTEREST

Since the organization of the first publicly-owned railroad, the Baltimore & Ohio in 1827, more than 9,000 railroad or railway companies have been incorporated in the United States [Hendy, 1980, p.1]. [9] Over the intervening century and decades, the number of railroads has declined significantly through mergers, bankruptcies, business combinations, and other corporate actions. By 1946, there were 693 railroads in the United States of various sizes and types (line-haul, trunk-line, terminal, short-line, leased, etc.) of which 137 were designated by the ICC as Class I line-haul.[10] These are railroads of potential interest

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[8] This writer saw this first hand as an auditor for Peat, Marwick, Mitchell & Co in the mid-1970s.

[9] There is no distinction between the words *railroad* and *railway*. The terms are used interchangeably, though the use of *railway* predominates in Great Britain and Canada. Railroads that emerged from bankruptcy reorganization frequently kept the portion of their name that was geographically specific and merely changed the railway to railroad or vice versa. Generally, in this paper, the term railroad is used.

[10] There were actually several **Class I** terminal railroads during the period

for this study, in effect those that represented the substance of the entire industry. As of 1947, Class I railroads operated approximately 95% of the total railway mileage, handled over 99% of the passenger and ton miles, employed 99% of all railway workers, and reported 97% of operating revenues for the entire industry [AAR Quiz, 1948, #247].

SELECTION OF THE SAMPLE RAILROADS

The source for selecting the individual railroads in this study was a 1946 publication, entitled *Railroads*, by Merrill Lynch, Pierce, Fenner & Beane, the leading stock brokerage firm of that time. This 88 page booklet was a research publication that was distributed to the firm's customers. It contained a wealth of information on the railroad industry as a whole, as well as detailed financial and operational data on a number of publicly-owned railroads. The depth and breath of this report befitted the fact that, in 1946, the railroad industry was still the most heavily capitalized in the United States with about $9 billion in bonds and $8 billion in stock outstanding.[11]

The Merrill Lynch booklet said that rail securities fall into four major groups:

1) Those consistently profitable with high credit standing,
2) Those of relatively good credit and better than average earnings,
3) Marginal or weak companies and,
4) The bankrupt group.

It provided two lists, one of 30 "leading roads" and another of 15 "additional railroads" without identifying the selection criteria for either, and without classifying them into the one of the aforementioned groups. A statement was made that the important issues of the big railroad systems trade on the "The Big Board", (the NYSE) also without identifying the companies that met this criteria. Through reference to Schacker [1930], it was deter-

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of study; however, in this paper, **Class I** is taken to exclusively mean line-haul railroads.

[11] In 1903, there were 116 railroads listed on the NYSE and the total value of the rail shares exceeded the total value of all other shares together [Foukle, 1968, p. 185]. However, by 1960, the total value of the 80 odd rail stocks traded on the NYSE represented just over two percent of the total value of all stocks [Merrill Lynch et al., 1960].

mined that 39 of 44 railroads shown on Exhibit 3 were indeed listed on the NYSE, including the 35 largest ones.[12]

EXHIBIT 3

Selection of Sample Railroads

			1945 Operating Revenues			1946		Selected for study		
Name of Railroad (nickname)	Reporting Mark	NYSE Listed	in $ millions	% of total	Cum. % of total	Leading Roads*	Additional Railroads	RR	Revenues from left	Comments
PENNSYLVANIA (PENNSY)	**PRR**	YES	$ 936.5	10.5%	10.5%	X		**YES**	$ 936.5	
NEW YORK CENTRAL	**NYC**	YES	654.4	7.4%	17.9%	X		**YES**	654.4	
SOUTHERN PACIFIC	**SP**	YES	590.3	6.6%	24.5%	X		**YES**	590.3	
SANTA FE	**ATSF**	YES	528.7	5.9%	30.4%	X		**YES**	528.7	
UNION PACIFIC	**UP**	YES	491.9	5.5%	36.0%	X		**YES**	491.9	
BALTIMORE & OHIO	**B&O**	YES	361.4	4.1%	40.0%	X		**YES**	361.4	
MISSOURI PACIFIC	**MP**	YES	289.0	3.2%	43.3%	X		**YES**	289.0	
SOUTHERN	**SOU**	YES	247.5	2.8%	46.1%	X		**YES**	247.5	
ILLINOIS CENTRAL	**IC**	YES	236.9	2.7%	48.7%	X		**YES**	236.9	
MILWAUKEE ROAD	**MILW**	YES	228.9	2.6%	51.3%	X		**YES**	228.9	
CHESAPEAKE & OHIO (CHESSIE)	**C&O**	YES	203.3	2.3%	53.6%	X		**YES**	203.3	
GREAT NORTHERN	**GN**	YES	200.1	2.2%	55.8%	X		**YES**	200.1	
LOUISVILLE & NASHVILLE	**L&N**	YES	196.5	2.2%	58.0%	X		**YES**	196.5	
CHICAGO ROCK ISLAND & PACIFIC (ROCK)	**RI**	YES YES	192.0	2.2%	60.2%	X		**YES**	192.0	
NEW HAVEN	**NH**	YES	173.2	1.9%	62.1%	X		**YES**	173.2	
CHICAGO & NORTH WESTERN	**C&NW**	YES	170.7	1.9%	64.0%	X		**YES**	170.7	
NORTHERN PACIFIC	**NP**	YES	149.2	1.7%	65.7%	X		**YES**	149.2	
NORFOLK & WESTERN	**N&W**	YES	144.9	1.6%	67.3%	X		**YES**	144.9	
ERIE	**ERIE**	YES	139.5	1.6%	68.9%	X		**YES**	139.5	
ATLANTIC COAST LINE	**ACL**	YES	138.7	1.6%	10.5%	X		**YES**	138.7	
SEABOARD AIR LINE	**SAL**	YES	130.2	1.5%	71.9%	X		**YES**	130.2	
ST. LOUIS-SAN FRANCISCO (FRISCO)	**SL-SF**	YES	116.8	1.3%	73.2%	X		**YES**	116.8	
READING	**RDG**	YES	109.4	1.2%	74.5%	X		**YES**	109.4	
WABASH	**WAB**	YES	91.1	1.0%	75.5%		X	**YES**	91.1	
NY CHICAGO & ST. LOUIS (NICKEL PLATE)	**NKP**	YES	85.6	1.0%	76.5%	X		**YES**	85.6	
MISSOURI-KANSAS-TEXAS (KATY)	**MKT**	YES	83.1	0.9%	77.4%	X		**YES**	83.1	
BOSTON & MAINE	B&M	YES	82.3	0.9%	78.3%		X			CONTROLLED BY MEC
DELAWARE & HUDSON	D&H	YES	79.3	0.9%	79.2%		X			INCLUDES COAL MINING BUSINESSES
DENVER & RIO GRANDE WESTERN	D&RGW	YES	78.3	0.9%	80.1%	X				EMERGED FROM BANK-RUPTCY 1947 AFTER MERGER w/DSL
LEHIGH VALLEY	LV	YES	77.7	0.9%	81.0%		X			CONTROLLED BY PRR
TEXAS & PACIFIC	T&P	YES	75.5	0.8%	81.8%		X			CONTROLLED BY MP
DELAWARE LACKAWANNA & WESTERN	DL&W	YES	72.2	0.8%	82.6%		X			MERGED WITH ERIE 1960
WESTERN PACIFIC	**WP**	YES	60.6	0.7%	83.3%	X		**YES**	60.6	
PERE MARQUETTE	PM	YES	51.5	0.6%	83.9%		X			ACQUIRED BY C%O IN 1947
GULF MOBILE & OHIO	**GM&O**	YES	38.1	0.4%	84.3%	X		**YES**	38.1	
PITTSBURGH & LAKE ERIE	P&LE	NO	30.7	0.3%	84.7%		X			CONTROLLED BY NYC
CHICAGO & EASTERN ILLINOIS	**C&EI**	YES	29.7	0.3%	85.0%		X	**YES**	29.7	
CHICAGO GREAT WESTERN	CGW	YES	29.4	0.3%	85.3%		X			ACQUIRED BY C&NW IN 1968
VIRGINIAN	VGN	NO	28.3	0.3%	85.6%	X				ACQUIRED BY N&W 1960
MAINE CENTRAL	MEC	NO	20.8	0.2%	85.9%		X			CONTROLLED BY B&M
ALABAMA GREAT SOUTHERN	AGS	NO	19.6	0.2%	86.1%		X			CONTROLLED BY SOU
ILLINOIS TERMINAL	ITC	NO	10.8	0.1%	86.2%		X			TERMINAL & INTERUR-BAN LINE
BANGOR & AROOSTOOK	**BAR**	YES	10.5	0.1%	86.3%		X	**YES**	10.5	
PITTSBURGH & WEST VIRGINIA	P&WV	YES	6.6	0.1%	86.4%		X			CONTROLLED BY PENNROAD CORP., LATER LEASED BY N&W
TOTAL for 44 RRs			$ 7,691.7			29	15	30	$ 7,028.7	
TOTAL FOR ALL CLASS I			$ 8,902.3						70.0%	

SOURCE: Railroads [Merrill Lynch, Pierce, Fenner & Smith, 1946]
* Excludes Canadian Pacific Railway
Reporting Mark of Selected Railroads in **BOLD**

[12] One "leading road", Canadian Pacific, was immediately removed from consideration, and not shown on **Exhibit 3** because it was not a U.S. company. However, it was publicly-owned and its stock was widely held in the U.S., trading on the NYSE. The Canadian Pacific filed annual reports with the ICC for its operations in Maine and Vermont.

Starting with the list of "leading roads", the objective was to select 30 railroads for study. Thirty was thought to be a manageable number that would theoretically provide for 900 distinct observations over the 30 year period, but only if the selected railroads lasted through the entire period of study. However, one should be concerned that the inclusion or exclusion of a particular railroad might unduly influence the results. The railroads that were selected were all listed on the NYSE and came primarily from Merrill Lynch's list of "leading roads." Certain railroads were eliminated from consideration because of control issues, as wells other changes in corporate structure or business operations.

The 30 selected railroads, as shown on Exhibit 3, were ones with both public recognition and longevity, and were diverse in terms of their size and their geographic locale with eight from the East, seven from the South, nine from the Midwest, two from the Northwest, two from the Southwest, and two from the West. With consideration of the resultant mergers, acquisitions, bankruptcies, and conversions to non-rail holding companies, the 30 selected railroads actually provided for a total of 691 unique company-year observations during the 30-year period of study as shown in Exhibit 4.

EXHIBIT 4

Status of Sample Railroads from 1946 to 1975

Railroad	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	# OF YEARS AS RR*
PRR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**M**	**I**	**B**	**B**	**B**	**B**	**B**	**B**	21
NYC	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**M**	**I**	**B**	**B**	**B**	**B**	**B**	**B**	21
SP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	**I**	**I**	**I**	**I**	23
ATSF	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	**I**	**I**	**I**	**I**	22
UP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	**I**	**I**	**I**	**I**	23
B&O	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**I**	**I**	**I**	19
MP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	30
SOU	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	30
IC	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	17
MILW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	**I**	26
C&O	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	27
GN	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**I**	**I**	**I**	**I**	**I**	**I**	23
L&N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	**I**	**I**	25
RI	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**B**	29
NH	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	15
C&NW	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	22
NP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**I**	**I**	**I**	**I**	**I**	**I**	23
N&W	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	30
ERIE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**B**	**B**	**B**	**B**	14
ACL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**M**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	21
SAL	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**M**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	21
SL-SF	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	30
RDG	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**B**	**B**	**B**	**B**	**B**	25
WAB	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	18
NKP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	18
MKT	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	22
WP	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	**I**	**I**	25
GM&O	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**M**	**M**	**M**	**M**	26
C&EI	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	30
BAR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	**I**	15
# OF RRs	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	27	27	26	24	23	23	19	16	12	12	9	7	6	6	5	691

KEY: Y = PUBLICLY-OWNED RAILROAD **M** = MERGED **B** = BANKRUPT **I** = INDUSTRY/NON-RAIL HOLDING CO.

The 30 selected railroads represented approximately 79% of the total Class I revenue for 1945. The sample group included the largest railroad in the country as measured by revenues, a good proxy for size and public recognition, plus several smaller roads as well. While only five members of the group survived as solvent, publicly-owned railroads till the end of the period of study, the average railroad was included for approximately 23 (out of the 30) years. Only seven railroads were included for less than 20 years, and these included the first two railroads that converted their public form of ownership to a non-rail, holding company structure.

As it turned out, even with the benefit of hindsight, it would have been impossible to find 20 or even 15 Class I railroads that survived as publicly-owned railroads from 1946 until 1975. However, even if this were possible, it would not have been desirable. The behavior of such a group would have likely been more homogeneous, but, at the same time, not representative of the railroad industry as a whole during this period. By including railroads that merged, those that were acquired by other railroads, those that converted to non-rail holding companies, those that went bankrupt, etc., the sample group is indeed quite representative of this industry during the period of study.

RESULTS OF THE STUDY

A total of 401 disclosed (complete) audits were observed for the sample group during the 1946 to 1975 period. This means that (complete) audits occurred in approximately 58% of the 691 possible company-year situations. However, there was considerable range in the findings. While the average railroad had approximately 13 audits during the period, four railroads were never audited for any of the years in which they were part of the sample group. Pennsylvania Railroad was the largest company within the sample group in terms of revenue, and also had the most shareholders, a number which peaked in 1946 with almost 219,000. Yet, there was never any presentation of audited financial statements in its annual reports during this period. Neither the Santa Fe nor the Illinois Central also disclosed any audits, and they were also major railroads, being the fifth and ninth largest in terms of 1945 revenue. The Santa Fe was a well-run and very profitable railroad. The Illinois Central was consistently profitable, and notably was the second railroad from the sample group to convert to a non-rail holding company (IC Industries) in 1963.

Union Pacific Railroad had only two complete audits in 1967 and 1968, and these were the years immediately before it converted to Union Pacific Corp., a non-rail holding company. On the other hand, nine railroads were audited for all the years they were included in the sample group. Two railroads, Missouri Pacific and Frisco were each audited for the entire 30-year period. Interestingly, Price Waterhouse was the auditor in both cases. Seven others were audited for all of the years they existed as solvent, publicly-owned railroads. Six of the seven railroads eventually left the sample group because of mergers or conversion to a non-rail holding company. For example, Katy, one of the smaller railroads in the sample group, was audited for 22 consecutive years beginning in 1946. It left the group after 1967 when it created Katy Industries, a non-rail holding corporation, as its public form of ownership. The seventh railroad in this sub- group was the Rock Island, which went bankrupt in 1975.

It was observed that two railroads (Reading and Gulf Mobile & Ohio) did not have their first audit until 1962. Norfolk & Western was the last railroad remaining in the sample group to be audited and that did not occur until 1969! From 1969 through 1975, all of the remaining railroads, in the (albeit) smaller group, voluntarily presented audited financial statements in their public annual reports.

It should be noted that, for certain years, three railroads disclosed that limited audit procedures were performed. For 16 years (1952 to 1967), Santa Fe presented subsidiary financial statements, audited by Price Waterhouse, in an appendix. At first, these statements were just wholly-owned subsidiaries, but later they were expanded to include all of its controlled affiliated companies. These companies were engaged in real estate development, oil and gas operations and uranium mining. They also included several non-operating railroads. There was no indication as to why separate audits were performed, but clearly most of these subsidiaries were outside of the ICC's control. Sometimes companies were required by their banks to have audits, but that does not seem to be the case here as Santa Fe was free of bank debt for most of the period. In many of these years, Santa Fe mentioned that Price Waterhouse made unannounced inspections of cash, stocks, bonds and other securities in the custody of the Lines' officers. However, at no time were any audited financial statements presented for either the parent company, or for the consolidated Santa Fe System.

Gulf Mobile & Ohio presented an audited balance sheet in just 1952, which was ten years before it presented a full set of

audited financial statements. Finally from 1958 to 1967, Union Pacific presented audited statements for its wholly owned non-rail affiliates, and also disclosed that there had been audits of the railroad's cash and securities. This practice mimicked those of Santa Fe, but these two railroads had little in common. One could question the value of limited audit procedures or audits of just minor parts of these businesses, particular since Santa Fe and Union Pacific were among the five largest railroads in terms of revenue. In both cases the reported audits of their affiliated non-rail subsidiaries stopped in the late 1960s. For Santa Fe, it was stopped in 1968 by its conversion to Santa Fe Industries, which was a non-rail holding company. Union Pacific stopped the practice in 1967 when it presented a complete set of audited consolidated financial statements. This was two years before Union Pacific Railroad Company converted its public form of ownership to (non-rail) Union Pacific Corp., and left the sample group.

Two railroads that presented audited financial statements also presented audited statements of available net income. For Chicago & North Western, this practice was observed from 1956 to 1967 after which it left the sample group. Each year its auditors, Arthur Andersen & Co., provided a separate audit opinion stating that the accompanying statement fairly presents "Available Net Income" in accordance with the terms of the first and second mortgages as amended.

For Milwaukee Road, this practice was observed from 1948 to 1964, but the audit opinion was handled in a slightly different way. Milwaukee Road produced a statement of available net income each year as required by the provisions of its first mortgage and general mortgages indentures. The remaining amount shown on these statements was available for the payment of dividends or for any other "proper" corporate purposes. However, its auditors, Ernst & Ernst at first and later Peat Marwick, opined on the statement of available net income as part of their accountants' reports covering the normal financial statements, rather than in a separate opinion. It was interesting to note that the auditor's opinion on available net income stopped in 1965, which was the first year that Milwaukee Road presented consolidated financial statements. Its consolidated balance sheet for 1965 showed that over $130 million of mortgage bonds were still outstanding, and the annual report included a statement of available net income without any indication that it was unaudited, or any discussion as to why this audit was apparently discontinued. Milwaukee Road continued to present statements

of available net income in its annual shareholder reports up through 1967.

There is some suggestion that the number of audits observed could be less than the actual number performed. It seems incredible, but possible, that in certain years a railroad could have been audited without disclosing this fact in its shareholder reports. Consider Bangor & Aroostook, which was audited by Haskins & Sells from 1948 to 1950, 1957, and again in 1960. What happened in the intervening years? Is it possible that the audits were continued and were merely not disclosed because there was no requirement to do so? Haskins & Sells was seemingly engaged here as its auditor over a 13 year period, albeit perhaps not continuously. Yet, it was found that Bangor & Aroostook's annual reports from 1928 to 1945 each included an audit report from Haskins & Sells.[13] External factors such as bank lending requirements do not seem to have affected this situation because it had no bank debt during this period. The 1960 audit was in the last annual report for the Bangor & Aroostook Railroad, and seemed to be a facilitating step in the railroad's conversion to a non-rail holding company at the end of that same year.

A balance sheet audit of Gulf Mobile & Ohio in 1952 was performed by Price Waterhouse, which was the same firm that began to conduct the full audits ten years later. Again, was it is possible that the Gulf Mobile & Ohio continued to employ Price Waterhouse's services during this period and merely did not disclose the results. The separate audits of affiliates disclosed for many years by Union Pacific were conducted by Haskins & Sells, which was the same firm used for complete audits in 1967 and 1968. Could it be that Haskins & Sells audited Union Pacific as well during this period, but it was not disclosed because it was not required? Given that there is no centralized source containing the audit reports for this period from the then Big Eight CPA firms, it would be virtually impossible to determine if such audits occurred but were not disclosed.

Perhaps the most interesting situation involves Pennsylvania Railroad (PRR), which had no reported audits. Salisbury [1982] said that Peat Marwick Mitchell & Co was hired in 1959 to perform a special study of the PRR's accounting and budgeting systems.[14] At the time, Peat Marwick was the world's largest

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[13] This was the earliest report that could be located.

[14] There was not mention of this in its annual reports. PRR's 1963 annual report talked about the modernization of accounting saying that it had initiated a

accounting and auditing firm, but that is not why it was selected for this role. Peat Marwick was already the auditor of the New York Central, and the PRR's CFO was looking ahead to their planned merger. The CFO thought that having a common auditor would serve the needs and interests of both railroads. Salsbury went on to say [p. 52] that, prior to the selection of Peat Marwick, no independent CPA firm had ever routinely audited the PRR's books. This seems to imply that Peat Marwick did audit the PRR in the 1960s, and if so, then it begs the question why these audits were not included in its annual reports.

It is interesting to note that Peat Marwick did eventually become the auditor of Penn Central Co., the ill-fated merger of PRR and New York Central. However, there was no audit report in the Penn Central's first annual report, which was issued in March 1968 for calendar year 1967 on a pooling-of-interests basis. PRR and New York Central did not actually merge until February 1, 1968. Penn Central included Peat Marwick audit reports in its 1968 and 1969 annual reports, but each audit opinion covered only one year. The reason for this was that the reporting company was different in 1967 vs. 1968 vs. 1969. In1967, the annual report was actually issued by Pennsylvania New York Central Transportation Co., the legal name of the merged railroad, for which audited financial statements would not have been required. For both 1968 and 1969, the annual report was issued by the Penn Central Co. In 1968, Penn Central Co. was adopted as the new name for the merged railroad, but later in 1969 the same name was applied to a newly-formed, non-rail holding company while the merged railroad was renamed the Penn Central Transportation Co. Accordingly, an audit would have been required for 1969, but not for 1968. Hence, the 1968 audit was voluntarily presented, but was not included in the results of this study.

Exhibit 5 shows that the percentage of railroads in the sample group that were audited increased steadily during the period of study. With an increase of three audits in 1956, the percentage audited finally exceeded 50%. From that point on, a larger and larger percentage of the (remaining) railroads were audited. The absolute number of audits declined as various railroads left the sample group. By 1969, the remaining stalwart (Norfolk & Western) was probably hard pressed to justify not being audited, and finally submitted to an audit.

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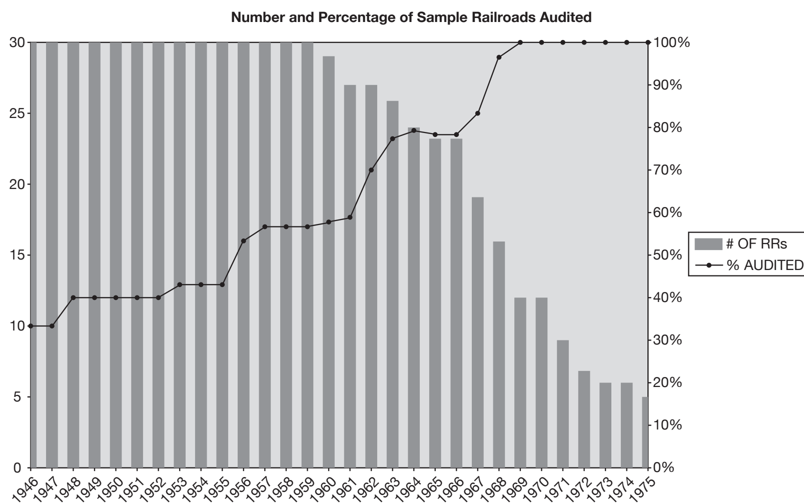
system of responsibility budgeting and reporting. Its 1964 annual report said that responsibility accounting and reporting had been extended to all functions of the company, and it had begun to unify property accounting with the new system.

EXHIBIT 5



Southern Railway was the next to last of the audit holdouts. Its first audit performed in 1968 by Price Waterhouse. The President's Letter to the Shareholders in Southern's 1968 annual report explained the change in audit policy. It said [p. 3] that, prior to 1968, Southern Railway had "not had its consolidated financial results audited except to the extent of examinations of the individual railroads' accounts by the ICC, and audits by outside accountants of certain subsidiary companies." It is not clear why Southern would have had certain subsidiaries audited while others were not, but this seems to be similar to the situation observed with Santa Fe and Union Pacific. Perhaps the only subsidiaries that were audited were those outside of the ICC's control. However, while the Santa Fe and Union Pacific generally disclosed the audits of their non-rail subsidiaries, Southern never did.

The Southern Railway System had long consisted of a large number of companies including several reporting Class I railroads, about 20 Class II railroads and about 30 other companies. These numbers exclude another 20 terminal railroads and other companies in which Southern had shared ownership, usually with other Class I railroads. The President's letter in the 1968 annual report further said that an independent audit was not required by law, but was deemed by the directors to be useful and valuable to both the shareholders' and Company's interest. It also said an audit was in accordance (perhaps giving increased comparability) with the accounting practices required

of companies subject to control by the SEC. However, the letter failed to note that Southern was not subject to the SEC's control and that the Southern was among the last publicly held Class I railroads to have an audit.

It was felt to be important that the graph in Exhibit 5 show both the percentage of railroads that were audited and the number of railroads audited each year. The reason for this is that after 1959 the actual number of railroads remaining in the sample group steadily decreased due to conversions to non-rail, holding companies, mergers, and bankruptcies. This is shown by the scale on the left column of the graph. Had the actual number of annual audits been shown, it would have increased from ten in 1946 to a maximum of 20 in 1963 before declining back to a handful in 1973 to 1975.

Exhibit 6 shows that virtually all the 401 (complete) audits were performed by Big Eight firms. Furthermore, one of the smaller firms shown had long been associated with one Big Eight firm and later merged with that firm. The table shows just three firms (Haskins & Sells, Peat Marwick and Price Waterhouse) collectively conducted approximately 91% of these audits and in fairly similar proportions. Both Price Waterhouse and Peat Marwick performed audits throughout the entire period of study. Price Waterhouse performed the most audits (124) while Peat Marwick had the largest number in a single year, nine in 1963. The railroads audited by Peat Marwick were located in the East and Midwest; Price Waterhouse's railroad clients were all in the Midwest.

Haskins & Sells performed the second highest number of audits from those observed. Their audits were performed from 1948 through 1970 and were primarily done on southern and western railroads, except for the tiny Bangor & Aroostook in northern New England. Interestingly, the New York City office of Haskins & Sells conducted the audits of Louisville & Nashville, Atlantic Coast Line and Seaboard Air line throughout the 1940s and 1950s. However, these three railroads were long linked by inter-company ownership such that the choice of a common auditor may not be surprising.[15] Ernst & Ernst and Arthur Andersen both performed their last audit on a member of the sample in 1967. Arthur Young's only railroad audit of a group member was

[15] It was quite common for one railroad to own stock in other railroads especially that of its preferred interchange partners. Through the period of study, the American Association of Railroads regularly reported that about one- third of railroad Class I stock was owned by other railroads in its annual yearbook.

done on Western Pacific in 1970, which was the last year it was included in the sample group; it converted to a non-rail holding company the following year.

EXHIBIT 6

Audits Performed on Sample Railroads from 1946-1975 by CPA Firm

Big Eight Firms in Italics	n	%	Most in single year
Price Waterhouse	124	31%	6
Haskins & Sells	121	30%	7
Peat, Marwick, Mitchell & Co	118	29%	9
Arthur Anderson	19	5%	2
Ernst & Ernst	15	4%	1
Swanson, Ogilvie & McKenzie	2	0%	1
Arthur Young	1	0%	1
Delotte, Plender & Griffins*	1	0%	1
totals	401	100%	n/a

* This firm began collaborating with Haskins & Sells in 1905 and the two firms actually merged in 1978.

The railroads and their auditors appeared to have had long-term relationships. Exhibit 7 shows that only nine auditor changes were observed during the 30-year period. Twenty railroads had just one auditor; four had two auditors, one had two changes for a total of three auditors, and Chicago & Eastern Illinois had three changes for a total of four auditors. Recall that four railroads never presented any audited financial statements during the sample period.

Several of the auditor changes can be easily explained. In 1968, Great Northern switched from Peat Marwick to Haskins & Sells and it appears that this was done in preparation of a pending merger. In March of 1970, Great Northern, Northern Pacific, Chicago Burlington & Quincy, and Spokane Portland & Seattle all merged to create the Burlington Northern Railroad, which became the country's largest railroad in terms of track mileage. This merger was accounted for as a pooling-of-interest, and the

first annual report for the merged entity was actually issued for 1969, and contained consolidated financial statements audited by Haskins & Sells, which had previously audited Northern Pacific.

EXHIBIT 7

Auditors and Changes in Auditors

Railroad	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	# of Audits	Years as RR	% Years Audited
PRR																															0	21	0%
NYC			PW	PW	PW	PW	PW	PW	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM										19	21	90%
SP								HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS								16	23	70%
ATSF																															0	22	0%
UP																						HS	HS								2	23	9%
B&O																PM	PM	PM	PM												4	19	21%
MP	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	30	30	100%
SOU																							PW	PW	PW	PW	PW	PW	PW	PW	8	30	27%
IC																															0	17	0%
MILW			EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	EE	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM					24	26	92%
C&O	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM				27	27	100%
GN													PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	HS								11	23	48%
L&N	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS						25	25	100%
RI	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW		29	29	100%
NH											AA	AA	AA	AA	AA																5	15	33%
C&NW											AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA									12	22	55%
NP						HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS								18	23	78%
N&W																								PM	PM	PM	PM	PM	PM	PM	7	30	23%
ERIE											HS	HS	HS	HS																	4	14	29%
ACL	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS										21	21	100%
SAL	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS	HS										21	21	100%
SL-SF	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW	30	30	100%
RDG																	PM	PM	PM	PM	PM	PM	PM	PM	PM						9	25	36%
WAB																															0	18	0%
NKP	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM													18	18	100%
MKT	DP	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	EE	EE	EE									22	22	100%
WP																		HS	HS	HS	HS	HS	HS	HS	AY						8	25	32%
GM&O																	PW	PW	PW	PW	PW	PW	PW	PW	PW	PW					10	26	38%
C&EI	SO	SO															PM	PM	PM	AA	AA	PW	PW	PW	PW	PW	PW	PW	PW	PW	16	30	53%
BAR			HS	HS	HS							HS			HS																5	15	33%
# of audits	10	10	12	12	12	12	12	13	13	13	16	17	17	17	17	16	19	20	19	18	18	16	15	12	12	9	7	6	6	5	401	691	58%
# of RRs	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	27	27	26	24	23	23	19	16	12	12	9	7	6	6	5	691		average
% AUDITED	33%	33%	40%	40%	40%	40%	40%	43%	43%	43%	53%	57%	57%	57%	59%	59%	70%	77%	79%	78%	78%	84%	94%	100%	100%	100%	100%	100%	100%	100%			

NOT PUBLICLY OWNED RAILROAD

CHANGE IN AUDIT FIRM OLD NEW

CPA FIRMS *BIG 8 in ITALICS*

AA *Arthur Anderson* **AY** *Arthur Young* **DP** Deloitte, Plender & Griffins **EE** *Ernst & Ernst*

HS *Haskins & Sells* **PM** *Peat Marwick* **PW** *Price Waterhouse* **SO** Swanson, Ogilvie & McKenzie

Baltimore & Ohio hired Peat Marwick as its auditor in 1961, just as it came under control of Chesapeake & Ohio, which had long used the same firm. Chicago & Eastern Illinois switched from Arthur Andersen to Price Waterhouse in 1967 at a time it was developing a relationship with Missouri Pacific, which also used that CPA firm. Erie's first audit in 1956 was performed by Haskins & Sells who also audited Delaware Lackawanna & Western, which merged with Erie in 1960 forming Erie-Lackawanna. Norfolk & Western chose Peat Marwick to be its first auditor in 1969 and this was probably also the result of an affiliated relationship.[16] For many years, PRR owned a substantial interest in Norfolk & Western and its officers served on Norfolk & Western's board of directors. As previously mentioned, PRR's relationship with Peat Marwick resulted in it later serving as the first auditor of Penn Central, which in retrospect probably wishes it had not.

The study looked at the various types of audit reports issued during the period of study. Although the accounting profession itself became more developed (Zeff, 1984) and the wording of the standard accountants' report changed during the period of study, it was still possible to summarize the reports observed into four groups. These included an unqualified (clean) opinion and three types of qualified opinions as shown in Exhibit 8.

EXHIBIT 8

Types of Audit Opinions during these Periods

	1946-1955	1956-1960	1961-1969	1970-1975	TOTALS	% of Total
Except for	23	16	136	33	208	52%
Unqualified	87	59	15	8	169	42%
Consistency	0	9	2	4	15	4%
Subject to	8	0	0	1	9	2%
totals	118	84	153	46	401	100%
	29%	21%	38%	11%	100%	

It seemed appropriate to group the different types of audit reports into four time periods as the year-by-year results were less important, and also there was some homogeneity within the periods. Unqualified opinions provide the most assurance, but

[16] This auditor/client relationship has turned out to be very long-lived. In the proxy accompanying its 2002 annual report, Norfolk Southern, noted that KPMG and its predecessor firm (Peat Marwick) have audited Norfolk Southern and one of its predecessor (Norfolk & Western) since 1969.

these were issued in only 42% of the audits. This is probably a much lower percentage than what would have been observed for audits of industrial or commercial companies during the same era. Recognize of course, that only 58% of the railroad annual reports reviewed were audited, while all of the annual reports from publicly-owned, industrial or commercial companies would have been audited. The except for opinions were issued for several reasons, most notably for the railroads' treatment of deferred taxes, elements of investment, depreciation, as well as, the uncertainty of future certain events. The audit reports labeled as consistency were special cases of except for opinions when an accounting change was made, but the audit report was otherwise unqualified. Subject to opinions were functionally the same as except for and only appeared at the start of the period of study. Also observed, but not affecting the type of opinion issued, were that the audit reports frequently contained additional explanatory paragraphs.

The type of audit report issued was related to the basis of accounting that was employed. All of the unqualified opinions issued prior to 1956 were for annual reports when the railroad's financial statements followed ICC accounting. One would think that since the railroad was already filing with the ICC on this basis, it would have been relatively easy to have its auditor opine on that. This is supported by the findings as approximately 73% of the audits performed through 1955 were unqualified. The except for opinions prior to 1961 were essentially from just three railroads: Milwaukee Road, Missouri Pacific and Chicago & North Western. The handful of subject to opinions was related to just four railroads. The consistency opinions in the second time period primarily were issued for 1956 and 1957 when the ICC and the railroads made several changes in their accounting and disclosure requirements. The one audit opinion in the 1970-1975 period was because of going concerns for Rock Island in 1974. It went bankrupt for the third time in 1975.

In terms of audit opinions, 1961 represented a watershed year. There were 16 audit opinions issued that year and all were stated in terms of GAAP, but included an explanatory paragraph saying the railroads were required to maintain their accounts in conformity with ICC accounting that differed in certain respects from GAAP. In fact, the wording of the explanatory paragraphs was virtually identical, meaning that the AICPA was involved in this change. After 1961, the audit opinions were solely based upon GAAP with the result that it was much harder to receive an unqualified opinion. This can be seen by the largest increase in except for opinions in the third time period. From 1968 to 1972,

only except for opinions were issued.

After 1972, the few railroads remaining in the sample group each eventually switched to GAAP accounting. This change in accounting change was noted in the auditor's opinion because it caused a consistency issue in the year of change. All five of the remaining sample railroads received unqualified opinions in 1975, which was the last year of this study.

ANALYSIS AND CONCLUSION

The paper shows the extent to which railroads voluntarily submit to annual audits by CPA firms. This was one area where there was a dramatic overall change. In 1946, only one-third of the sample group was audited, but by 1970 it was 100% audited. On average, the selected railroads were audited slightly more than half of the time. There does not seem that external factors mandated the audits, except for two railroads where the audits may have been related to specific mortgage covenants. Accordingly, these railroads had a choice to be audited or not. To the extent that a railroad chose to be audited in the late 1940s or early 1950s, it was seemingly a voluntary decision. A decade later, the decision to be audited was probably more closely related to conforming to the then prevailing industry practice.

It was not until 1956 that the sample railroads were more likely to be audited than not. By 1969, all of the railroads remaining in the sample group presented audited financial statements annually, and this practice continued until 1976 when the few remaining, publicly-owned railroads were required to fully comply with the SEC's accounting and auditing requirements. Accordingly, the impact of the requiring an audit under SEC rules was largely moot.

In terms of the sample group, the largest railroads were the least likely to have an audit. However, this is very misleading as these same railroads were the most likely to leave the sample group to become a non-rail holding company for which an audit would have been required. Most of the railroads that were audited voluntarily had low to moderate leverage and return-on-average assets.

During much of the period of study, the accounting profession was dominated by eight CPA firms, the so called "The Big Eight". However, an even smaller number of these firms served the accounting and auditing needs of the railroad industry. Three firms together performed 91% of the audits, while no single CPA firm dominated the railroad industry audits. Specific firm audit reports were similarly worded and mentioned similar accounting issues e.g., the treatment of depreciation and of de-

ferred income taxes.

This study also provided evidence of an early audit in 1898 for the Reading Railroad and two related lines, which was not previously disclosed in the literature. A further review of railroad annual reports from the end the 19th century could possibly identify yet earlier audits or validate the significance of this finding. The difficulty here is easily locating annual reports from this era for review.

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APPENDIX

Timeline of Major Events Impacting Specialized Railroad Accounting Practices and Annual Reports

1827	First publicly owned railroad - B&0
1828	First B&O annual report
1837	Virginia - first state to require summary accounting data
1876	Supreme Court uphold granger laws Munn v. Illinois
1879	Convention of State Railroad Commissioners
1886	Supreme Court stops state regulation of interest commerce - Wabash v. Illinois
1887	ICC established - requires annual reporting of railroads
1891	First use of current assets/liabilities in PRR annual report
1893	Panic hits railroad industry particularly hard - eventually 37% go broke
1898	Reading's first annual report is audited
1900	B&O has audited financial statements
1901	Baltimore Ohio issues 75th annual report
1906	Hepburn Act allows ICC to prescribe uniform chart of accounts
1914	Valuation Act directs ICC to value all assets used by railroads
1914	ICC issues Accounting Classification for Steam Railroads
1916	Railroad mileage peaks; first Federal highway aid

1917	USRA seizes control of railroads during WWI
1920	Transportation Act gives ICC control over railroad securities
1920	URSA returns railroads to corporate control
1923	ICC proposes depreciation for all assets
1926	ICC orders depreciation for track structures and then backs off
1929	Start of Great Depression - eventually 28% of railroad mileage in bankruptcy
1931	ICC orders depreciation for track structures and then backs off
1932	ICC orders and then suspends depreciation for all assets on straight line basis
1933	Securities Act creates SEC to control securities- railroad securities exempt
1934	Securities Act creates annual reporting requirements- railroads exempted
1943	ICC orders depreciation on track and roadbed
1943	ICC issues Uniform System of Accounts for Steam Railroads
1945	End of World War II; form of railroad annual reports begins to change
1946	PRR issues its 100th annual report
1947	Start of Modern Merger Era
1954	New Internal Revenue code
1956	AICPA forms Committee of Relations with ICC
1960	Bangor & Aroostock Railroad becomes Bangor & Aroostock Corp.
1968	Merger of PRR and NYC forming Penn Central
1970	Merger of GN, NP, CB&Q and SP&S forming Burlington Northern
1970	Penn Central Bankruptcy
1971	Amtrak takes over inter-city passenger service
1975	Last year railroad accounting allowed in shareholder annual reports
1976	Conrail takes over operation of 10 bankrupt eastern carriers
1976	4R Act gives SEC authority to prescribe railroad accounting and reporting rules
1983	FASB issues SFAS 83 on changes in Accounting for RR Track Structures
1992	Last annual report from a Class I railroad - Consolidated Rail Corp. (Conrail)