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THE ROLE OF FINANCIAL ACCOUNTING IN INVESTING IN 1870s AMERICA

Abstract: The objectives of this study are to understand better the development of investment practices and the information that was available for those practices during the turbulent decade of the 1870s. This was a time of panic, depression, and manipulations by insiders. Nevertheless, outsiders chose to speculate and invest in corporate securities in Wall Street. Consequently, authors began to provide more specific investment advice, some of which required the use of earnings and other financial-accounting information. This study describes the availability of that information in the books and periodicals in an age dominated by railroad kings.

INTRODUCTION

Financial accounting became important to the securities markets in America in the late 1840s. At that time, the markets were called upon to provide significant amounts of capital to railroads, the first modern businesses. Since the markets were little more than rigged casinos, it was hoped that financial accounting and other information would help investors make rational decisions. Information was viewed as a means to defeat stock swindlers and manipulators who took advantage of the uninformed [Thompson, 2008].

However, authors prior to 1870 provided little guidance on how information should be used to select corporate securities. They focused on educating investors and providing information to assist in the purchase of securities that had "intrinsic value" [Armstrong, 1848] or were "well-authenticated" [Hamon, 1865]. This paper examines what advice authors gave to investors to make decisions and what information was available to them for making those decisions. As such, it contributes to our understanding of the development of investing and financial accounting. It helps explain how financial-statement analysis went

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from virtually non-existent in the 1840s to methods in the 20th century.

This article is based primarily upon books on investing published in the 1870s. As in a previous article [Thompson, 2008], these books were identified using WorldCat [2007], employing a fairly comprehensive set of search terms related to investing and railroad manuals. Stipulations included that the books were published in America, focused on the New York Stock Exchange (NYSE), were general works on investing in corporate securities, and were available through interlibrary loan. The information derived from these books was supplemented by periodical literature of the day.

This article is organized as follows. The stock market of the 1870s and its operations are discussed in the first two sections. Contemporary investment advice, including the first model for making investment decisions expounded by an American author, is described in the subsequent section. Available investment information is surveyed in the next section and a synthesis and conclusion complete the study.

THE STOCK MARKET IN THE 1870S

The NYSE had grown dramatically over the years. The conduct of business had grown more than 200-fold by 1870 compared to 1838, and it had become a $3 billion market [Medbery, 1870]. About this time, 100,000 shares typically traded in a day.[1] In 1875, the daily volume of business transacted on the NYSE approached $50 million compared with $20 million, including gold trades, in 1865 [Tumbridge, 1875; Stedman and Easton, 1905; Gordon, 1999].[2]

Table 1 shows the domination of railroad securities on U.S. exchanges.[3] These securities helped finance the doubling of railroad track mileage from 39,250 miles at the end of 1867 to 81,841 miles at the end of 1878 [Poor, 1879]. Other industries that grew in the aftermath of the Civil War did not usually rely upon the securities markets for financing.[4]

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[1] By comparison, in 2000, the market capitalization of stocks listed on the NYSE was over $12 trillion, with an average daily trading volume of over one billion shares [Wright, 2001].

[2] The technology of the NYSE was also changing with telephones first used in November 1878. Stock quotations had been reported by tickers starting in 1867 [Eames, 1894].

[3] There were also a large amount of bank and insurance stocks that were considered "local" and, as will be seen later, were not actively traded.

[4] For example, retailers and wholesalers relied upon commercial banks and

TABLE 1

Numbers of Securities on U.S. Exchanges in 1870 (Principal Cities)

Industry	Stocks	Bonds
Railroad	192	736
Canal	15	30
Coal	12	—
Gas	12	—
Telegraph	2	—
Express	4	—
Steamship	2	—
Trust	5	—
Mining	4	—
Street Passenger Railroad (New York & Brooklyn Cities)	21	29
Miscellaneous	—	8

Source: Dana & Co. [1870]

During the early 1870s, the NYSE was affected by corners in Reading, Rock Island, and Chicago and Northwestern, major fires in Chicago and Boston, and the Oakes Ames scandal involving the Union Pacific Railroad and the Crédit Mobilier of America (CM) [Fowler, 1873; Lapsley and Bazley, 1874].[5] However, the Panic of 1873 was the most notable stock-market event of the 1870s.

The failure of Jay Cooke & Co. on September 18, 1873 precipitated the panic. As underwriters of Northern Pacific Railroad bonds, Jay Cooke & Co. was to pay 85 cents on the dollar for the bonds. However, it was obligated to pay the Northern Pacific interest on any unsold bonds. Jay Cooke sold less than $20 million out of a total of at least $60 million. Consequently, it could not keep up with the interest payments, resulting in the firm's failure [*New York Times* (*NYT*), 1873d]. Jay Cooke came to national prominence by selling U.S. government bonds during the Civil War, often with little or no compensation [*NYT*, 1873b].

The panic produced runs on financial institutions as depositors lacked confidence in the safety of their deposits [*NYT*,

cash flow to finance their operations [Chandler, 1977]. Two notable companies that began in the 1870s also did not need the security markets. Carnegie's Edgar Thomson Steel Company was a limited partnership [Livesay, 1975], and the stock of the Standard Oil Company was held by six people [Chernow, 1998].

[5] The CM was the construction company for the Union Pacific. Oakes Ames, one of CM's stockholders and a congressman from Massachusetts, sold CM stock among his colleagues with the intention of receiving a favorable view by Congress toward the financing of the Union Pacific [Seitz, 1926; Gordon, 2005].

1873c]. An estimated 20,000 people were financially ruined within two days, and losses amounted to at least $20 million [Smith, 1873]. The NYSE closed for ten days from September 20-30 [Fowler, 1873]. By the end of 1873, 57 NYSE-listed firms had failed [Eames, 1894]. In addition, over 300 banks failed [Geisst, 2004] and, by the end of the decade, 287 brokerage firms were bankrupt [Gordon, 1999].

Railway stocks suffered the most, including those owned by Vanderbilt [*NYT*, 1873e]. Stocks hit their lowest prices on November 7, 1873 [Fowler, 1873]. As of that day, for the 15 stocks for which the *NYT* reported closing quotations on September 12, 1873 (before the trouble began), the average loss was 39.5%. The losses ranged from 21.5% for the Chicago and Rock Island to 54.0% for the Hannibal and St. Joseph [*NYT*, 1873a, 1873h].[6] Even worse, railroad stock prices lost an average of about 50% by 1878 [Gordon, 1999].

One of the consequences of the panic was the onset of a business depression [*NYT*, 1873g] that lasted most of the decade. In 1876, 134 railroads were in default on $500 million in bonds out of $2 billion outstanding [Sullivan, 1876]. Railroad earnings did not recover until after 1878 [Poor, 1879].[7] By the end of the decade, 65 railroads were bankrupt [Garraty, 1995, p. 501].

However, speculation returned to Wall Street in fall 1879. A record number of 681,810 shares were traded on November 20, 1879 [Stedman and Easton, 1905]. This return to speculation was accompanied by reorganizations of railroads and their bonds, benefiting "speculators who had bought up their old stocks and bonds at little or nothing, thus 'reconstructing' immense fortunes for themselves while saddling the reorganization with a weight of indebtedness as great or greater than before" [*American Railroad Journal* (*ARJ*), 1879a, pp. 1,149-1,150].

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[6] The *NYT* reported the actual transactions (number of shares traded and price) in stocks at the NYSE. In a separate table, it reported the opening and closing prices for 15 stocks.

[7] Some contributing factors were railroad strikes in 1876 [Stedman and Easton, 1905] and Granger laws that had a negative impact on the prices of railroad shares [Eames, 1894]. More importantly, the five major trunk lines that connected the west with the shipping ports on the east coast were grappling with competition among themselves [Adams, 1888].

THE NATURE OF SECURITY MARKET OPERATIONS

Some commentators attributed the Panic of 1873 to an overbuilding of railroads and a shortage of money as surplus crops were coming to market [Fowler, 1873; Clews, 1887]. However, other authors thought a more fundamental cause was excessive speculation [Smith 1873; Stedman and Easton, 1905]. Sullivan [1876, p. 101] noted that there were two aspects of Wall Street, "the substantial or investment [and] the speculative or visionary." The former helped the country's industry while the latter caused wealth to be made or lost. *Banker's Magazine and Statistical Register* (*BM*) [1879, p. 19] lamented the existence of speculation since "it diverts to the occupation of gambling, which is essentially unprofitable in a public point of view, an incalculable amount of time, energy, and talent." Walker [1878, p. 40] added that "the rashness of those who hover around the vortex of stock speculation is not rashness merely, but probable perdition."

Fowler [1870, pp. 132, 534] explained the motivation for a speculator: "*the hope of gain* is a stronger principle in human nature, than *the fear of loss*." (italics in the original) He added: "They lose everywhere, buying stocks, selling stocks; by failures of their brokers, by frauds of their contractors, by panics, by corners, by tricks and stratagems of the market." Smith [1870, pp. 157, 544-545] also explained the urge to speculate: "The haste to be rich, by a lucky stroke of fortune, by hazarding a few thousands in Wall Street, is the same spirit that leads thousands to the gambling table." Some lost because of their own actions, others were fooled. Unfortunately, "Ninety-eight out of every hundred, who have to do with the Street, are cleaned out and ruined."

Various methods were used to take advantage of unwary investors and speculators. One was through "points, a bit of secret information concerning a stock…which will seriously affect prices" [Medbery, 1870, p. 83]. Today, the securities acts prohibit trading on such secret or inside information. Moreover, Regulation FD mandates disclosure by a corporation to the public of material information that could affect its stock's price [Sharpe, 1981; Malkiel, 2007]. Yet, in the 1870s, these points were useful as long as "*you have not been misled*" [Medbery, 1870, pp. 83, 86]. Medbery added that "half the failures of the street are due to points which brokers believe in, not only to their customers' but their own ruin." Fraudulent newspaper articles were also extremely influential "if a favorable notice can be secured for a handsome check, it is regarded as well laid out" [Smith, 1870, p. 520]. In fact, Jay Gould, the aforementioned stock operator *par excellent*, owned the *New York World* and used it to aid his schemes [Josephson, 1934].

"Corners" were also a popular device of manipulative pools [Medbery, 1870]. Essentially, these involved controlling, through ownership or buying contracts, most of the shares available for a corporation.[8] This trapped (cornered) the "shorts" (the sellers), forcing them to pay an exorbitant amount for the stock in order to fulfill their contracts.

Corporate directors deceived stock owners by issuing more than the authorized number of shares and by paying dividends out of capital [Medbery, 1870; Smith, 1870]. This was long before Ponzi schemes were so-named in the 1920s, which Bernie Madoff popularized in the contemporary world [McCoy, 2009]. In addition, corporate directors often had a conflict of interest. For instance, Gould, as a director of the Union Pacific, threatened to develop a competing railroad. He strung together a number of railroads and planned an extension that would have bypassed the Union Pacific by connecting the Central Pacific in Utah with the Lake Shore Railroad in Ohio. To avert the competition, the Union Pacific acquired the proposed line, benefiting Gould and other directors of the Union Pacific who held stock in the acquired railroads [Stedman and Easton, 1905].[9]

Abuses like these were often easy to perpetrate since railroad ownership was concentrated in the hands of a relatively few (e.g., Vanderbilt, Gould, Scott, Garrett, Huntington, Mitchell, Jewett, Garrison, Field, and coal railroad owners). Through their stock ownership and the related control of their companies' bonds and leases, these "railroad kings" controlled approximately $3.3 billion of the $4.5 billion railroad capital in the U.S. These amounts dwarfed the nation's $720 million in banking capital and $369 million in states' debt. Moreover, railroad capi-

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[8] These contracts, essentially futures, were buyer or seller options for 3, 10, 30, 60, and 90 days [Medbery, 1870]. A buying contract allowed the issuer to buy stock from a seller, while a selling contract allowed the issuer to sell stock to a buyer. In a buying (selling) contract, the buyer (seller) could give one day's notice to complete the sale during the term of the contract or otherwise must have bought (sold) when the contract came due.

[9] However, Gould claimed that he resigned as director of the Union Pacific shortly before the acquisition [Clews, 1887]. During this same period near the end of the 1870s and into the early 1880s, Gould orchestrated other schemes including obtaining control of Western Union and the elevated trains in New York City [Stedman and Easton, 1905].

tal was almost twice as large as the $2.3 billion debt of the U.S. [*ARJ*, 1879b].[10]

Despite this domination by a handful of individuals, many Americans owned railroad securities, including those living along railroad lines. Even clergymen and women speculated at times. These "outsiders" sent from 850 to 2,300 daily telegraph orders to the NYSE [Medbery, 1870]. In 1879, as many as 30,000 outsiders participated in the stock market [Fowler, 1880].[11] It was for these outsiders that the authors of the 1870s began to offer advice. This advice was more specific than that offered by prior authors.

SELECTING SECURITIES

Rules for Outsiders: Fowler [1870, p. 117] advised: "Buy only on the amplest margins. Be an occasional not a constant operator. Cut short your losses, and let your profits run. Never sell what you have not got."[12] Walker's [1878, p. 40] two rules were: "Never borrow money to speculate with. Never speculate so deeply but that, if you lose all, you will not feel it." Medbery [1870, p. 230] discouraged outsiders from buying on margin: "If they purchased 'out and out,' the whole aspect of things would change. The cliques would not control as at present, and speculation would become an affair of relative judgment." Barnes Garrison & Co. [late 1870s, pp. 5, 7] suggested: "Always go with the tide… Never buy stocks immediately after a strong 'bull' campaign, nor sell them just after a sharp 'bear' movement." They added, in what was essentially a technical-analysis approach, "Where a stock has once been in price, you may look for it to sell there again at some time."

Some of this advice is still around. Malkiel [2007, p. 372], for example, believes in "the Wall Street maxim 'Ride the winners and sell the losers.'" He also believes in trading as little as possible. Similarly, Cramer [2005] advises not borrowing a lot of money to invest, selling losers, and staying with winners. Investors should also [Cramer, 2006, p. 155] "Follow the Street's

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[10] William H. Vanderbilt would soon sell $30 million of New York Central common stock. While Vanderbilt maintained that he did this to placate the public on its charges of monopoly, others thought that this was simply a good time to sell as the value of the New York Central was not likely to increase [*ARJ*, 1879c].

[11] Foreign investors in American securities tended to buy debt securities, many preferring government bonds. In total, British investors owned $1.1 billion of American securities in 1876 [Baskin and Miranti, 1997].

[12] Margins of 10% were typical, although for more speculative securities, the required margin could be more [Medbery, 1870].

lead." Moreover, Buffet does not believe in using much debt for investing [Schroeder, 2009].

Others pursued more of a fundamental-analysis method. *Hunt's Merchants' Magazine and Commercial Review* (*HMM*) [1870a, p. 106] demanded greater publicity of financial information, noting that "the current value of railroad stocks is regulated by the current earnings of the road." When investing in stocks or bonds, Sullivan [1876, p. 101] suggested that "the principal and interest should be secure beyond question." Toward this end, Sullivan advised to "ascertain the amount of stock or bonded indebtedness, or both; the scheme or object represented; if a railroad, the cost per mile, the demands and productiveness of the country through which it passes." Other considerations included whether an acquired security could be used for collateral or sold in the event cash was subsequently needed.

When speculating, as opposed to investing, Sullivan [1876, p. 102] advised to stay away from "'fancy,' or stocks of no intrinsic value, non-dividend paying, and subject to the wildest fluctuations." Recent examples of such stocks include the internet bubble at the turn of the 21st century when companies were evaluated by the number of website visits, how long visitors stayed, or how many miles of fiber-optic cables had been laid [Malkiel, 2007]. Sullivan [1876, p. 102] believed that only insiders or those with a controlling interest could make money with fancy stocks. As with investment, Sullivan's cardinal rule was safety of principal and interest. In addition, he required that both controlling stockholders and its officers were honest, with the interests of the company being their utmost goal. Such stocks "must not be looked for, however, with the flattering hope of getting rich in a day, for their fluctuations are small, yet they are sure."

Medbery [1870, p. 203] believed that outsiders should buy low and sell high and that "the advice is not more sound than feasible." Those who succeeded "watch the market, study the earnings of companies, look into the character and bent of mind of directors, and when certain stocks fall to a reasonable figure they buy, generally upon wide margins." His advice is similar to that of Warren Buffet [2001].

Moreover, sounding quite modern, Medbery [1870, pp. 204, 210, 217] believed that stock price changes were primarily due to "excess or want of confidence." He observed that stock prices often moved together and that "in its panics, Wall Street is especially unreasonable. Indeed, there is not a safer method of profit in existence than to watch the periodical depressions of securities; and to buy, buy, buy as soon as the downward pressure is fully under way." He added that such stock price changes were common and occurred every year. Unfortunately, "To buy at the crest wave of extreme advance and to sell at the lowest ebb of the tide, are what brokers assure us to be the judicious customs of ninety out of a hundred of the people who bewail their inexplicable misadventures in stocks!" As an alternative, Medbery suggested a more comprehensive approach by formulating an investment model, the first known American author to do so.

Medbery's Investment Method: Unlike the other authors, Medbery [1870. p. 207] developed a valuation model for stock prices, noting that "the method is not difficult in its arithmetic, and has doubtless a certain use, as illustrating the difference between the selling rate of stocks and their theoretical value." He explained his method for a stock which pays a dividend of 7% on a par value of $100: "Thus, where money brings easily seven per cent a year, it is clear that a stock ought to have par value, provided the company which it represents is managed with such care as to insure the property from future injury in its earning power." He further added that:

> if the same stock should permanently pay eight per cent, its true value in the market would be the equivalent of that sum, which at seven per cent would give eight dollars in interest. Were a capitalist to buy the stock at 114 2/7, his annual dividend would be precisely what the same money would be worth at .07 per year.

In other words, the price of the stock is that amount needed to generate a fixed dividend each period at a constant money rate (price x .07 = $8, or price = $8/.07 = $114 2/7). In modern terms, this is equivalent to modeling the price of a share of stock as the present value of a constant dividend per period in perpetuity discounted by a constant interest rate [Sharpe, 1981]. For Medbery's example, $114 2/7 is the present value of the $8 dividends received in perpetuity discounted at 7% per year.

Using his model, Medbery provided actual examples of mispriced securities. He considered examples of bank and railroad stocks, showing the difference between the market price and the theoretical value using a 7% money rate. He concluded that, "With the exception of a few of the banks, it has been seen that the table affords a near average of the intrinsic worth of the stock cited above." Medbery [1870, pp. 221-222] cautioned that, "The reader ought to thoroughly understand, however, that there is no royal road to speculation." Moreover, "Integrity and ability in directors, the earning capacity of the property of a corporation, the chances of the future as well as the past, are essential points to the final judgment, and the rates of the Exchange are averagely the measure of increasing or decreasing faith in the dividend worth of a security."

Medbery [1870, pp. 209, 229-230] noted that his model had been around for some time: "Seventy years ago a chart classifying the great British funds, according to ratios similar to tables just presented, was published in London." He added that the model should have aided users to become wealthy. However, it had not always been applied successfully because of "suspicion, over-confidence, timidity, vacillation – each and every element which has made the prices of all financial centres through early and latter days fluctuating, unstable, hazardous." He observed that "This weakness of humanity is the life of speculation." Moreover, regarding the use of his model, Medbery lamented that:

> Brokers tell us that about one in a hundred buy in this manner. The ninety-nine mean to do so. They make their calculations, add up, subtract, wander hither and thither for points, try this system and that theory, are wise to the extent of their wisdom, and come forth from their ventures shorn of all their golden fleece. With a chart of prices before one, this fatality seems inexplicable.

AVAILABLE INFORMATION

Medbery, Sullivan, and others [*HMM*, 1870a; *NYT*, 1873f] suggested obtaining information on earnings, costs, capital structure, dividends, integrity of management, and prospects for the future in selecting investments. Focusing on railroads, this section describes the investment information contained in various volumes, periodicals, and manuals during the 1870s. Railroads' annual reports were not reviewed. Setting aside the difficulty of currently obtaining them, a more compelling factor is that annual reports were not always as complete as the information available elsewhere, especially in railroad manuals [Chandler, 1956]. In addition, as late as 1926, investors did not usually examine annual reports or other primary documents, such as corporate charters. Instead, they relied on manuals and periodicals [Lyon, 1926].

Miscellaneous Volumes: Miscellaneous volumes commonly provided tables on high and low prices for railroad securities. Failing [1870], for example, included a table, covering three years, containing annual high and low prices for about 40 bonds, common stocks, and preferred stocks. Sullivan [1876] presented a similar table, covering the years 1860 through 1875. Other authors [Dana & Co., 1870; Horton & Co., 1878] provided monthly high and low prices. Monthly tables were often given by brokerage houses as an enticement for speculators to buy stocks or privileges (options).[13]

Another type of table commonly available contained basic descriptors of stocks and bonds. Failing [1870] had a table of 68 railroad stocks showing par, capital paid-in, shares outstanding, dividend rate, and dividend-payment dates. Dana & Co.'s [1870] table showed the same information along with date of last dividend payment and bid and ask prices. Sullivan's [1876] table for 27 railroads listed capital stock, par value, dividend-payment months, bonds outstanding, latest net earnings, and funded debt of road property. Note that he provided slightly more information by including net earnings and debt information. Dana & Co.'s [1870] railroad bond table briefly described the issue (e.g., first mortgage, convertible) and provided amount outstanding, interest rate, when and where interest was to be paid, maturity date, and bid and ask prices.

Dana & Co. [1870] included other tables on railroad mileage and earnings. It also summarized economic conditions of 1869, and gave an overview of major economic issues: government debt, foreign trade, crop production, real estate values, Wall Street speculation, and railroad construction. Reflecting a future orientation for the upcoming year, Dana & Co. [1870, p. 73] did "not anticipate a *general* and *material* increase in railroad earnings over the year 1869." However, it noted that "the old and well known favorites on the Stock Exchange will do well, and in fact, be very prosperous, if they can show during the coming months of the new year a report of earnings which will compare favorably with the same months of 1869." Long ago, investment practices included a future outlook, a perspective that continues to this day [Cramer, 2005].

Periodicals: One of the popular periodicals of the mid-19th cen-

[13] Privileges, what are now called options, included calls, puts, spreads, and straddles (double privileges). They allowed the holder to buy or sell stock at a fixed price, typically during a 30-day period.

tury was *HMM*. In 1870, this monthly magazine contained business articles, banking and economic data, government reports, and notices of issues of new securities. Its section entitled "Commercial Chronicle & Review" discussed business, money-market, bond-market, and stock-market conditions. Another section on "Railroad Items" provided mostly short notices on conditions and progress of individual railroads. Thus, general business news was available to *HMM* readers.

Quantitative data were also included. Similar to the miscellaneous volumes discussed previously, there was a focus on pricing information. In February 1870 [*HMM*, 1870b], one table showed monthly high and low prices for railroad stocks for 1869. Another gave the opening, highest, lowest, and closing prices for selected securities during each of the prior two months. Also provided was industry sales volume for the month for shares traded on the NYSE. Remarkably, in January 1870, of the 896,596 shares traded, 781,340 were railroad shares (87%).

Financial-accounting information played a significant role in *HMM*. Comparative year-over-year monthly earnings and earnings year-to-date were reported for selected railroads. Even detailed income and balance-sheet information was sometimes included, such as for the Reading and the Louisville and Nashville Railroads [*HMM*, 1870c]. Tables were periodically published covering railroads in a handful of states, such as Ohio and Massachusetts [*HMM*, 1870d]. The table for Ohio included for each railroad, length, cost, capital stock, funded and floating debt, earnings (passenger, freight, and total), operating expenses, net earnings, interest paid, and dividends. The tables for other states were similar.

Reflective of the changing times, the monthly *HMM* was merged, beginning in 1871, with the newly born (July 1865) *Commercial and Financial Chronicle* weekly. An editorial explained [*HMM*, 1870f, pp. 401-402]:

> the increased rapidity of communication between cities and nations by means of railroads and telegraphs has changed into quicker movement all thought and action by individuals and communities...Thus it became evident, some time since, to the publishers of the *Magazine* that the infrequency of its issue (only once a month) prevented its keeping pace with the growing wants and necessities of the community. Its information was too late to be of present use.

The new *Commercial and Financial Chronicle and Hunt's*

Merchants' Magazine (*Chronicle*) was to be supplemented by an annual volume that "shall contain all the yearly statistics, &c., necessary for Bankers' and Merchants' use, in form easy of reference, with reports of the different branches of trade, &c."

By the end of the decade, the *Chronicle*, the leading financial periodical of the time [Geisst, 2004], offered a compendium of information.[14] The breadth was amazing. The three key parts of the *Chronicle* were the weekly issues, the monthly "General Quotations of Stocks and Bonds," and the monthly *Investor's Supplement*. In Its July 1879 issues, the *Chronicle* [1879 b, c, d, e] provided general business news like its predecessor *HMM*. There were articles, banking and economic data, a weekly column on commodities and railroad traffic, and a weekly column on the money market and securities. Also reported were the dollar values of transactions in bonds (U.S., state, and railroad) as well as the number of shares traded on the NYSE. Comparative prices over three years were given for New York City bank stocks, money, gold, exchange, U.S. bonds, railroad stocks (12 issues), and merchandise.

Price and volume information for stocks and bonds were important. One table reported the opening, high, low, and closing stock prices for the most recent two months for railroads (68 security issues), telegraph (4), express (4), coal & mining (12), and various (7). Another table showed the daily high and low prices during the most recent week for 39 stocks. For these issues, a table provided the number of shares sold during the most recent week and the lowest and highest prices year-to-date and for the previous year. For seven issues, a table displayed the daily trading volume during the past week, the weekly total, and the total shares outstanding. In addition, fairly long tables provided recent bid and ask quotations for stocks and bonds. For railroads with "Active Previously Quoted" securities, 29 stocks and 219 bonds were included. Tables on New York local securities covered banks, gas, city railroads, and insurance companies. Moreover, the initial January issue [*Chronicle*, 1879a] reported the monthly high and low security prices for the prior year.

As a current comparison, opening, high, low, and closing daily prices, volume data, charts, and additional information are readily available on websites such as Barchart.com. The *Wall Street Journal* (*WSJ*) [2010] provides stock data that were not

[14] The *Chronicle* maintained its preeminent status well into the 1920s. Lyon [1926, p. 52] referred to it as "the great thesaurus of current investment information."

contemplated in the 1870s, such as performance of stock indices, largest percentage gainers and losers, most active stocks, and volume movers. For bonds, the *WSJ* focuses on indices and the issues with the largest spread and price changes.

Financial-accounting information also played a prominent role in the *Chronicle*. One table had comparative monthly and year-to-date gross earnings. Another showed gross earnings, expenses, and net earnings for a different set of companies. Recent dividend announcements were included separately (percent, when payable, date that books closed). Additionally, included in the *Chronicle* were a few annual reports (some in detail). In all, a typical *Chronicle* issue was about 25 pages in length.

The last *Chronicle* for each month contained extensive tables entitled "General Quotations of Stocks and Bonds," covering stock and bonds traded throughout the U.S. These comprehensive tables contained far more securities than reported in the weekly issues. Table 2 lists by industry the number of securities with bid and ask quotations for July [*Chronicle*, 1879e]. Not included in Table 2 are bank and fire-insurance stocks in major cities other than New York, U.S. bonds, foreign-government securities, and state and city securities. In sheer numbers, railroad securities dominated except for bank and fire-insurance companies. These groups were not actively traded. Only about 1,200 bank shares were traded in May and June 1879 respectively compared with 5.5 million and 3.2 million railroad and miscellaneous shares [*Chronicle*, 1879b].

TABLE 2

Number of Securities Quoted by the *Chronicle* in 1879

Industry-Security Type	Number
Railroad Bonds	793
Railroad Stocks	240
Canal Bonds	33
Canal Stocks	10
Miscellaneous Bonds	23
Miscellaneous Stocks	25
Express Stocks	4
Gas Stocks	45
Manufacturing Stocks (mostly in New England)	55
Coal and Miscellaneous Mining Stocks	30
Boston Mining Stocks	23
California-Nevada Mining Stocks	85
New York City Bank Stocks	62
New York City Fire Insurance Stocks	75

Source: *Chronicle* [1879e]

The *Chronicle* also published an *Investor's Supplement* on the last Saturday of each month. After a discussion of investments for the month, extensive stock and bond tables were presented. These gave basic security descriptors. For railroad stocks and bonds, the tables provided description, miles of road, date of bonds, size of bond issue or par value of stock, dollar amount outstanding, and interest or dividend information (e.g., interest rate, last dividend date for stocks, etc.). Brief notes on the company or issue were appended. Again, railroad securities dominated with tables covering 16 pages compared with three for state securities, seven for city securities, one for canal stocks and bonds, and one for miscellaneous stocks and bonds [*Chronicle*, 1879f]. In all, the *Investor's Supplement* was typically around 30 pages in length. These comprehensive pricing and security descriptor tables supplemented data available on a weekly basis for selected security issues.

Unlike the *Chronicle*, the weekly *ARJ* focused more exclusively on railroads, although some information was usually given on state and U.S. government securities.[15] Almost half of the *ARJ* was devoted to two main tables on railroad securities, "American Railroad Bond List" and "Railroad Share List." These tables followed the same formats in the 1870s that had been adopted in the 1860s [*ARJ*, 1869, 1879d]. The bond list had basic descriptors for each listed bond issue – dollar value, interest rate, when and where payable, due date, and price. Table 3 shows the contents of the share list. Note the inclusion of financial-accounting information. For the December 26, 1879 issue [1879d], there were 1,283 issues listed in the bond table and 318 issues in the stock table.

Two other *ARJ* tables dealt primarily with railroads. One showed for 229 railroads stock outstanding in dollars, dividend-payment dates, and last dividend date; the other displayed monthly earnings for three to six years for 21 railroads. Daily stock and bond prices for the most recent week were reported for selected companies on the New York, Philadelphia, Boston, Baltimore, and London stock exchanges. Weekly price ranges were given in lists for additional selected stocks and bonds traded in New York, Philadelphia, Boston, and Baltimore. Also included in the *ARJ* were short articles, excerpts from an-

[15] A third periodical of the time, *BM* emphasized banks and banking although it routinely reported selected stock prices for 25 companies, mostly railroads. It also included commentary on the stock market.

TABLE 3

ARJ Railroad Share List Information

Identifiers – name, states of operation, year ending

Railroad mileage – main line, branches, second track and sidings, in progress, operated

Rolling stock – engines, passenger cars, B. M. & E. cars, freight cars

Abstract of general balance sheet: property and assets – railroad, rolling stock, and other assets; accounts and cash; liabilities – stocks, bonds, accounts, and surplus income

Operations – miles trains moved, number of passengers, tons of freight

Earnings – gross and net

Dividend percent

Values of shares – par and market

Source: *ARJ* [1879d]

nual reports of railroads, brief announcements on earnings and directors, and a classified ad-type format for mostly dividend announcements. It contained a column titled, "Financial and Commercial Review," that discussed stock-market conditions, such as the activities of prominent bulls and bears, likely trends, and other economic matters. However, general business news played a less prominent role in the *ARJ* compared with the *Chronicle*. For the December 26, 1879 issue [1879d], 17 of the 28 pages of the *ARJ* were devoted to tables. Thus, on a weekly basis, the *ARJ* provided basic security descriptors, updated annual balance-sheet and earnings information, and price data. In contrast to the *Chronicle*, the *ARJ* published more financial-accounting information. However, even more financial-accounting data were provided in railroad manuals.

Railroad Manuals: The most detailed company information continued to be published in railroad manuals. A new work during the 1870s was the *American Railroad Manual for the United States and the Dominion* by Edward Vernon. This was the first edition of what was intended to be an annual edition. Vernon, who was formerly editor of *Travelers' Official Railway Guide*, expanded on his purpose in an introductory "Editorial." Vernon [1873, p. xlix] wanted to be impartial in presenting "the merits of each line, and to give an accurate exhibit of its financial condition, connections, and doings in transportation." On occasion, he planned to evaluate the railroads critically.[16] Like the compilers of other railroad manuals before him, Vernon noted that the information he wanted was not always available. In some cases, the officers of the railroad would not cooperate in providing the information at their disposal.

Vernon [1873, p. 1] was rightfully proud of the inclusion of railroad maps, believing he was the first to do so: "The illustration of a statistical work on railroads with such an elaborate series of maps originates with ourselves." However, Poor [1860] also did so in his first volume covering the railroads and canals of the U.S. Poor, however, was unable to complete his planned three-volume set because of the onset of the Civil War.

Most interestingly, Vernon [1873, pp. li, liii] wanted to create a table for each state, "systematizing all statistical information." However, due to difficulties, he did so only for Massachusetts and Ohio. The difficulties included different fiscal years, use of estimates in the place of actual results, and the lack of uniform accounting. With respect to the latter, Vernon penned an early plea for standardized financial reporting:

> There is also such an entire want of uniformity in keeping railroad accounts, and their subdivision, that an accurate estimate of the actual cost of railroad property is almost unattainable, especially as many railroad companies yearly expend large sums out of net earnings in permanent improvements, and charge to *operating* what should be legitimately debited to *construction*.

He added: "Our work in compiling these statistics would be materially facilitated if some definite rule were laid down by railroad managers as to what should constitute operating expenses."

Overall, Vernon's manual was 662 pages, and its general index contained about 1,000 railroads, including branch and leased lines. A majority of the write-ups were a half page or less. Thirty-nine of Vernon's write-ups were two or more pages.[17]

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[16] Contrast this aspiration with Poor's views [1860, preface]: "For each company no explanations of its acts or policy, or speculation as to the cause of its success or want of success have been offered." Poor added that, "All such would be worse than useless, as they would encourage a tendency, so strong in all, to substitute results that are desired for such as actually take place."

[17] Of over 750 entries in Poor's [1868] index (including U.S. and state debt,

Since it was his original plan of display, Table 4 shows the information for each railroad in Massachusetts. The table for Ohio was essentially the same except that it covered more debt instruments. These tables were comparable to those presented in periodicals of the time, such as the *ARJ* [1869]. Vernon, however, included some ratios and break-downs of earnings, expenses, and debt. On the other hand, unlike *ARJ*, asset costs were missing from these tables.

TABLE 4

Contents of Vernon's Table for Massachusetts

Characteristics of road – gauge and mileage for main, branch, sidings, total, and mileage in state

Capital stock and bonded debt – capital stock authorized, paid-in, preferred stock, first mortgage bonds, second mortgage bonds, unfunded debt, convertible bonds, total, and dollar amount for state

Rolling stock – number of locomotives, passenger cars, B & M cars, freight cars

Earnings and receipts – from passengers, freight, other (mail, express, rents, and miscellaneous), and total

Expenses – maintenance of way, locomotive repairs, car repairs, conducting and transportation, general, and total

Net earnings

Mileage statistics (ratios) – expenses to earnings, earnings per mile of road, expenses per mile of road, net earnings per mile of road

Percentage of dividends on stock

Source: Vernon [1873]

As for other states, railroad information was included in the write-ups for each railroad. These typically traced the history of the railroad from its original charter through subsequent amendments or consolidations. The terminus and length of track were noted. With respect to Table 4, the shorter write-ups tended to include the information on characteristics, capital structure, rolling stock, and earnings. In addition, Vernon mentioned the cost of road and equipment. Also given was the distribution of net earnings to interest, rent, dividends, and

street railroads, and railroads known by more than one name), about 30 involved extensive write-ups (two or more pages) for steam railroads. Hence, taking into account the additional items in his manual, Poor had a somewhat higher proportion of longer write-ups than Vernon. On the other hand, exact comparisons were hard to make since Poor's page size was smaller.

surplus. However, not all the information was always presented, presumably because it was not available. In addition, some of the write-ups were written for railroads under construction and those leased to other railroads. In these cases, Vernon briefly discussed progress to date or the lease terms. Often included were connections with other railroads, the express company used (e.g., American Express), a list of directors, and the location of the general office.

An example of a longer write-up is that for the New York Central and Hudson River Railroad. It was five pages with about half of its length devoted to the railroad's long history and consolidations. For the year ended September 30, 1872, Vernon [1873, p. 136] noted a considerable discrepancy between total liabilities (including stock) and the cost of the road and equipment. He stated that:

> It would be better if the items on which the increase in capital stock was originally based were charged to their appropriate heads, and the value of the property on the books made to correspond with the existing liabilities; then a correct balance-sheet could be published from year to year, and there would not be such a glaring discrepancy between assets and liabilities, which must naturally puzzle those who are not conversant with the *legitimate* process by which the capital stock was increased nearly 100 per cent. and the value of the property correctly appraised.

Though stock watering was common, Vernon believed that the liabilities, not the assets, represented the actual value of the track and rolling stock. Notably, Vernon also provided ratios in which the actual cost-per-mile of road and per-mile of track were calculated.

In tables, Vernon reported physical operations for three years (e.g., miles run, passengers in total and carried one mile, tons of freight in total and carried one mile, etc.), "doings" (happenings) in transportation for three years (gross earnings, expenses, and net earnings), and expenses by categories for two years (e.g., office and station expenses, cost of running, etc.). He also reported the ratio of total expenses to gross earnings. In sentence form, he gave the distribution of net earnings to grading and bridging, interest on bonds, dividends, and rent, with the remainder carried forward to the income account for the next year. Vernon discussed other matters, such as the financing of two additional tracks from New York to Buffalo, the leasing of the New York and Harlem Railroad, the replacing of existing rails with steel rails, and the competency of management (i.e., Vanderbilt).

In summary, Vernon [1873] emphasized a railroad's legal organization, including its original charter, amendments, and consolidations. Compared with Poor's [1868] entry on the New York Central, Vernon spent more time on the history of the company and less on providing tables.[18] Operating and financial information was generally limited to the current, or at least the most recent years. In contrast, Poor [1868] provided more operating and financial information covering six years. Vernon's approach may have been sufficient for an annual work. However, based on a search of WorldCat [2008], Vernon only published one more edition of his work in 1874. His manual may have been a victim of the Panic of 1873.

The most popular railroad manual of the era, Poor's *Manual of the Railroads of the United States* was in its 12th edition in 1879.[19] The general index contained over 1,350 entries. Most of these referenced American and Canadian railroads, but also included state debts, city and suburban tramways, the Panama Railroad, Pullman's Palace Car Co., and the United States Rolling Stock Co.[20] In addition, an appendix listed the names of former railways and the name of the current railway of which they were now a part. A classified index and an alphabetical list of advertisers were also provided.[21]

The introduction reiterated the purpose of providing information on railroads: "What the public requires is an accurate presentation of their financial condition" [Poor, 1879, p. 1]. Poor commented that he was better able to fulfill this mission since the railroads and state oversight boards disclosed more information.[22] Yet, with respect to some railroads, "there are

[18] Poor [1860] covered the history of railroads and canals.

[19] Another long-running railroad manual, *The Manual of Statistics* [Financial News Association, 1879], started in 1879. It, like Poor's *Manual*, was published into the 1920s. Unfortunately, no copies of the inaugural edition could be located, either through interlibrary loan or otherwise (no library could be indentified using WorldCat [2008] that actually had the 1879 edition).

[20] As noted, there were approximately 750 entries in the general index to Poor [1868]. As a sign of the times, Poor deleted about a dozen entries for canals that had been in his 1868-1869 *Manual*. In the newer edition, Poor only included canals associated with a railroad.

[21] One notable user of Poor's *Manuals* was Jay Gould. Fowler [1873, p. 563] noted that before the Panic of 1873, Gould "was poring over 'Poor's Railroad Manual' in search of some other good railroad to link on to those that he then held."

[22] Poor was more successful than stockholders in obtaining information for the New York Central which did not provide annual reports to stockholders in the

still a considerable number which either refuse it altogether, or supply it sparingly and grudgingly." He added that, "The refusal of information should, as a rule, be taken as evidence, that, if communicated, it would tell strongly against the company, or persons refusing it."

Poor was optimistic. In 1878, 2,700 miles of track were added, resulting in over 81,000 total miles in the U.S. Poor expected mileage to double as the system reached undeveloped lands and expanded to accommodate growth in population and commerce. Financially, Poor commented that railroad earnings for 1878 were nearly equal to the peak year of 1873, and, despite the ensuing depression, freight tonnage had increased 50%. This boded well for the railroads in the future as they "will start upon a new career, with an ample tonnage traffic, the rates on which are only slightly increased to add enormously to their net earnings." He noted that a large number of railroads had been reorganized "upon a plan, or scheme, to reduce their interest-bearing securities to a sum the interest on which could in all probability by met by the accruing incomes, leaving dividends on common or preferred stock to be paid as earned." Poor [1870, pp. ii, iii] observed optimistically: "With the general recovery witnessed on every hand, and with an enormous balance of trade with foreign countries in our favor, there is every reason to believe that the country, and particularly its Railroads, are entering upon a career of unwonted prosperity."

Next, Poor provided a table for all railroads showing in total, for each of the years 1871 through 1878, miles operated, capital and funded debt, gross earnings broken down by freight and passenger, net earnings, and dividends paid. In the next table, he presented these data regionally, comparing 1877 and 1878 results. Poor also provided mileage, rolling stock, capital, cost, earnings, interest, and dividends, both in total and per 100 miles of railroad for each state..

The main part of the manual, comprising 997 pages, was organized by states and territories within regions. For each state or territory, Poor included the area in square miles, population, and miles of railroad. A table showed for each railroad total mileage, total in the state or territory, cost of railroad per mile, length of railroad worked, gross earnings per mile, expenses as a percent of gross earnings, profits per mile, and percent of dividends paid. The entries for individual railroads in that state

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1870s and 1880s [Previts and Merino, 1998].

followed, ranging in length from about a quarter of a page to several pages. Of the approximately 1,160 entries for railroads, 95 of them were two or more pages.[23]

Illustrative of the longer entries that Poor included is that for the New York Central & Hudson River Railroad. The entry was about five pages long. Poor began the entry by giving the main-line mileage owned; branches; second, third, and fourth tracks; and others, such as sidings, turnouts, and auxiliary. He also listed the mileage of the lines leased from others and the total length of all tracks operated. The gauge of the track was included as well as the types of rails (e.g., steel and weight). Table 5 shows the extensive information provided in the remainder of the entry. Both physical and financial information was included. Especially noteworthy are the breakdowns of classes of freight, gross earnings, expenditures, capital structure, and operating assets. This remarkable amount of information was more detailed than that of Vernon [1873]. Much of it was presented on a comparative basis covering six years. Several ratios on a per-mile basis were reported as well as the percent of expenses to gross earnings (revenues). Overall, 166 of the approximately 1,160 railroad entries (14%) in the manual had some sort of a comparative earnings table. Comparative financial statements (balance sheets) were less common.

The five-page entry for the New York Central in the 1879 *Manual* is comparable, with a few notable changes, to that of the four-page entry in the 1868-1869 *Manual*. The historical write-up was more extended in 1879, giving the charter and opening dates of the various lines. In the 1879 edition, Poor combined tables in the earlier manual on "doings in transportation," earnings, and the income account into his "Comparative Statement of Operations, Traffic, and Revenue." In the process, he eliminated calculations per 100 miles each for freight and passengers, replacing them with per-mile calculations for gross earnings, expenses, and net earnings. He added percent of expenses to gross earnings and the average rates (dollars) per passenger per mile and per ton per mile. Similarly, he combined the information on track mileage (deleting details on second tracks, sidings, etc.), rolling stock, and financial condition into a single "General Account" table. Poor in the 1879 edition only provided details of funded debt for the current year rather than in a table covering six years. He deleted the monthly stock-price table. In

[23] As noted, this compared with only 30 entries of at least two pages in Poor [1868], which was less than half (about 400 pages) of the length of Poor [1879].

the newer edition, he presented more details of expenses and

TABLE 5

Poor's Entry for the New York Central

Rolling Stock – numbers of locomotives and cars by type (e.g., passenger and freight)

Constituent Companies – dates of charter and opening of predecessor companies and leased lines

Operations – miles run by passenger and freight trains, number of passengers and tons of freight in total, per mile, and rates per mile, classes of freight by ton (e.g., forest products, animal and animal products, manufactures, etc.), earnings by source (passengers, freight, mail, etc.,), expenditures (maintenance of way, rolling stock, fuel, etc.), net earnings, other receipts (e.g., rents and interest), other payments (e.g., interest on bonds, dividends, rent), and surplus for year

Comparative Statement of Operations, Traffic, and Revenue for 1872-1878 – miles of railroad and all tracks, passenger and freight miles, passengers carried and passenger miles, freight tons moved and ton miles, gross traffic earnings (passenger, freight, and miscellaneous), transportation expenses, net traffic earnings, other receipts, payments (rentals, interest, dividends), balance to surplus, per mile basis for gross earnings, gross expenses, and net earnings, percentage of gross expenses to gross earnings, average rate per passenger per mile, and average rate per ton per mile

Financial Statement at September 30, 1878 – capital stock account, funded debt, bonds and mortgages on real estate, and total; per contra, grading and masonry, bridges, superstructure, stations and buildings, land and land damages, locomotive engines and snow plows, passenger and baggage cars, freight and other cars, engineering and agencies, investments in other lines, and balance of other assets

Funded debt – issues, interest rates, maturity dates

Comparative General Account at September 30 for 1872-1878 – miles of railroad and tracks, numbers of locomotives and cars, dollar amounts for capital stock account, funded debt, real estate bonds, floating debt, total capital, railroad, equipment, engineering and agencies, investments in other railroads, and balance of other assets

Other – directors, officers, and principal office and address

Source: Poor [1879]

railroad assets for the current year, but with fewer details of other liabilities and other assets.

The shorter entries were typically about a half page or less. Table 6 shows a reproduction of the information for the Parker and Karns City Railroad. The format for a shorter entry was similar to that for the New York Central. The major difference was that only one year's data, with fewer details, were included.

For example, the financial-operations section might only supply gross earnings, operating expenses, and net earnings. The financial-statement section might only include capital stock, funded debt, floating debt, and the assets reported might be limited to the cost of road. Poor usually included details of the funded debt, such as due dates and interest rates. A fair number of the entries were brief when the lines were leased to others. Sometimes, Poor just reported basic description when the railroad refused to provide the information. Some of the shorter entries in the 1879 *Manual* were longer than those in the 1868-1869 edition. The newer entries contained an historical write-up, more gross earnings breakdowns, more balance-sheet amounts, more calculations of rates, and details of the funded debt.

TABLE 6

Poor's Entry for Parker and Karns City Railroad

Line of Road.-Parker Junction, Pa., to Karns City, Pa..............10.50 miles. Sidings and other tracks, 1.31 miles. Gauge, 3 feet. Rail, 30 lbs.

Construction commenced October 1, 1873. Road opened April 10, 1874.

Rolling Stock.-Locomotive engines, 4. Cars-passenger, 5; baggage, etc., 2; Freight (box, 10; and platform, 36), 46-total, 53.

Operations for year ending December 31, 1878.-Gross earnings-passenger $101,459.40; freight, $63,011.64; and miscellaneous, $5,627.83-total ($16,199.89 per mile), $170,098.87. Operating expenses (51.19 p. c.), $87,099.06. Net earnings, $82,999.81. Disposition of net earnings not reported.

Financial Statement, December 31,1878.-Cost of road ($21,547.39 p. m.), $226,247.50, and of equipment ($7,426.72 p. m.), $77,980.54; total, road and equipment ($28,974.12 p. m.), $304,228.11. Capital stock, $150,000. Funded debt, 1st mortgage 7 per cent. gold bonds, $100,000.

S. D. Karns, *President*....................................Parker City, Pa.

PRINCIPAL OFFICE AND ADDRESS.....................Parker City, Pa.

Source: Poor [1879, p. 344]

Compared with Vernon's 1873 *Manual*, Poor's 1879 *Manual* also included a history of the company, but Poor refrained from editorializing on how the company was doing or on the competency of the management. Again, Poor provided more data covering more years, and he included more ratios. Both authors, however, reported the ratio of operating expenses to gross earnings. Poor had more entries as well as more entries with longer write-ups, although this could have been a function of the later publication date. Yet, both authors were frustrated by the lack of information forthcoming from some of the railroads.

On the other hand, these railroad manuals contained considerably more information than mining manuals from the era.[24] One mining manual [Mining Review Publishing Company, 1879] provided an overview of mining stock exchanges, mining laws, mines, biographies, and articles related to mining. Most of the descriptions of the approximately 475 individual mines were less than one-quarter of a page and were often just a few lines. They included basic organizational information (e.g., directors), capital, physical descriptions of the property, and progress to date. In some cases, the descriptions included assessments, dividends, value of ore, costs of mining and milling per ton, expected profits, and law suits and other disputes with adjoining mines. No financial statements were reported.

In summary, while investors sometimes had a wealth of information for some railroads, for others it was sparse and hard to come by. Moreover, the comparability of the expense/asset amounts troubled Vernon. In contrast, Poor was not overly concerned about the reliability of the data. He believed that this potential problem was mitigated by presenting comparative information over several years. He thought that this approach made it more difficult for the railroads to hide something [Chandler, 1956].

A SYNTHESIS AND CONCLUSION

Did outside investors from the 1870s need financial accounting information? Clearly, Medbery [1870] and Sullivan [1876] thought that the answer was yes. They thought that financial-accounting information, especially earnings information, was necessary to make informed decisions. The *NYT* agreed. In the wake of the Panic of 1873, it was proposed that NYSE railroads provide monthly financial statements. The financial statement would have included earnings (revenues) and expenses and should have resulted in "more confidence felt by investors in their purchases, which are now mostly made blindfolded, as it were" [*NYT*, 1873f, p. 1].

Due to inside information, railroad directors had an unfair

[24] Mining securities were not traded on the NYSE. Most of them were traded on the New York Mining Stock Exchange, the San Francisco Stock and Exchange Board, the Pacific Stock Exchange, or the California Stock and Exchange Board [Mining Review Publishing Company, 1879].

advantage over outside stockholders. The suggested solution was the disclosure by railroads of weekly earnings (revenues) and monthly statements of earnings and expenses [*HMM*, 1870a]. Additionally, there was support for inspection, on demand, of a railroad's books by stockholders [*HMM*, 1870e].

Was financial accounting information available? Painstaking effort was made to provide this information, especially by periodicals and railroad manuals. Available information to aid investment decisions expanded and became more timely as exemplified by the merger of the popular monthly *HMM* with the weekly *Commercial and Financial Chronicle*. By the end of the 1870s, the merged *Chronicle*, the most prominent financial periodical of its time, provided a host of data. Earnings information was reported along with basic security descriptors, price, volume, economic, and money-market data. The *ARJ* presented even more operational, balance-sheet, and earnings data for railroads.

Yet, the most detailed operational and financial information was provided in railroad manuals, especially Poor's. Poor [1879] reported more information about more railroads. In a growing number of cases, he included six years of comparative physical asset, operational, earnings, and balance-sheet numbers. In addition, sophistication of the analysis of the information grew as Poor presented more ratios involving per-mile calculations. Both he and Vernon [1873] calculated a railroad's ratio of operating expenses to gross earnings. These ratios should have helped investors better understand railroads. They are key metrics that Cramer [2005] insists are critical to understanding an industry.

Unfortunately, some railroads still refused or disclosed relatively little information. Further, Poor [1879] reported comparative earnings information for only about one in seven railroads. Balance-sheet information was reported for even fewer. State regulatory agencies that promoted financial disclosure, such as the Massachusetts Board of Railroad Commissioners, were in their infancy in the 1870s [McCraw, 1984]. At the federal level, it would not be until 1887 that the Interstate Commerce Commission required standardized formats for financial statements, and it would not be until 1906 that the Hepburn Act required standardized accounting methods [Baskin and Miranti, 1997]. Moreover, having all publicly held companies routinely providing financial accounting information was still more than half a century away. Outsiders would have to wait for a systematic reporting process while they contended with railroad kings and sweeping economic events like the Panic of 1873.

REFERENCES

Adams, C.F., Jr. (1888), *Railroads: Their Origin and Problems*, revised edn. (New York: G. P. Putnam's Sons).

American Railroad Journal (1869), Vol. 42, December 25: 1,438-1,453.

American Railroad Journal (1879a), "Over-Issuing Railroad Bonds to Feed Wall Street Speculation," Vol. 52, October 18: 1,149-1,150.

American Railroad Journal (1879b), "The Feudal Lords of the Nineteenth Century," Vol. 52, November 7: first page.

American Railroad Journal (1879c), "Why did Vanderbilt Sell his Controlling Interest in New York Central?" Vol. 52, December 5: 1,345-1,346.

American Railroad Journal (1879d), Vol. 52, December 29: 1,429-1,456.

Armstrong, W. (1848), *Stocks and Stock-Jobbing in Wall Street, with Sketches of the Brokers, and Fancy Stocks* (New York: New York Publishing Co.).

Banker's Magazine and Statistical Register (1879), "Gambling Speculations," Vol. 34, No. 1: 19-22.

Barnes Garrison & Co. (late 1870s), *Key to Success in Wall Street* (New York: Barnes Garrison & Co.).

Baskin, J.B. and Miranti, P.J. (1997), *A History of Corporate Finance* (Cambridge: Cambridge University Press).

Buffet, W.E. (2001), *The Essays of Warren Buffet: Lessons for Corporate America* (New York: Lawrence A. Cunningham).

Chandler, A.D. (1956), *Henry Varnum Poor: Business Editor, Analyst, and Reformer* (Cambridge: Harvard University Press).

Chandler, A.D. (1977), *The Visible Hand: The Managerial Revolution in American Business* (Cambridge: Harvard University Press).

Chernow, R. (1998), *Titan, the Life of J.D. Rockefeller, Sr.* (New York: Random House).

Clews, H. (1887), *Twenty-Eight Years in Wall Street* (New York: Irving Publishing Co.).

Commercial and Financial Chronicle and Hunt's Merchants' Magazine (1879a), Vol. 28, January 4.

Commercial and Financial Chronicle and Hunt's Merchants' Magazine (1879b), Vol. 29, July 5.

Commercial and Financial Chronicle and Hunt's Merchants' Magazine (1879c), Vol. 29, July 12.

Commercial and Financial Chronicle and Hunt's Merchants' Magazine (1879d), Vol. 29, July 19.

Commercial and Financial Chronicle and Hunt's Merchants' Magazine (1879e), Vol. 29, July 26.

Commercial and Financial Chronicle and Hunt's Merchants' Magazine (1879f), *Investors' Supplement*, Vol. 29, July 26.

Cramer, J.J. (2005), *Real Money* (New York: Simon & Schuster).

Cramer, J.J. (2006), *Mad Money* (New York: Simon & Schuster).

Dana & Co. (1870), *The Commercial & Financial Register, 1870* (New York: William B. Dana & Co.).

Eames, F.L. (1894), *The New York Stock Exchange* (New York: Greenwood Press), 1968 reprint.

Failing, J.H. (1870), *A Treatise on Stock-Dealing and the Gold Conspiracy* (Fort Plain, NY: J.H. Failing).

Financial News Association (1879), *The Manual of Statistics* (New York: Financial News Association).

Fowler, W.W. (1870), *Ten Years in Wall Street* (Hartford: Worthington, Dustin & Co.).

Fowler, W.W. (1873), *Inside Life in Wall Street* (Hartford: Dusting, Gilman & Co.).

Fowler, W.W. (1880), *Twenty Years of Inside Life in Wall Street* (New York: Greenwood Press), 1968 reprint.

Garraty, J.A. (1995), *The American Nation: A History of the United States since 1865*, Volume II, 8th. edn. (New York: HarperCollins College Publishers).

Geisst, C.R. (2004), *Wall Street* (New York: Oxford University Press, Inc.).

Gordon, J.S. (1999), *The Great Game* (New York: Scribner).

Gordon, J.S. (2005), *An Empire of Wealth* (New York: Harper Perennial).

Hamon, H. (1865), *New York Stock Exchange Manual* (New York: John F. Trow).

Horton, H.L. & Co. (1878), *Fluctuations of the New York Stock Market, 1868 to 1878* (New York: H.L. Horton & Co.).

Hunt's Merchants' Magazine and Commercial Review (1870a), "Secrecy in Corporate Management," Vol. 62, February: 104-106.

Hunt's Merchants' Magazine and Commercial Review (1870b), Vol. 62, February.

Hunt's Merchants' Magazine and Commercial Review (1870c), Vol. 62, March.

Hunt's Merchants' Magazine and Commercial Review (1870d), Vol. 62, April.

Hunt's Merchants' Magazine and Commercial Review (1870e), "The Management of Railways," Vol. 62, June: 415-418.

Hunt's Merchants' Magazine and Commercial Review (1870f), "Hunt's Merchants' Magazine for 1871," Vol. 63, December: 401-403.

Josephson, M. (1934), *The Robber Barons* (New York: Harcourt, Brace and Company).

Lapsley & Bazley (1874), *How Money is Lost and Made in Wall Street* (New York: Lapsley & Bazley).

Livesay, H.C. (1975), *Andrew Carnegie and the Rise of Big Business* (New York: HarperCollins *Publishers*).

Lyon, H. (1926), *Investment* (Boston: Houghton Mifflin Company).

Malkiel, B.G. (2007), *A Random Walk Down Wall Street* (New York: W.W. Norton & Co.).

McCoy, K. (2009), "Economic Troubles Reveal Ponzi Plague," *USA Today*, April 17: 1-2B.

McCraw, T.K. (1984) *Prophets of Regulation* (Cambridge: Belknap Press).

Medbery, J.K. (1870), *Men and Mysteries of Wall Street* (New York: Greenwood Press), 1968 reprint.

Mining Review Publishing Company (1879), *United States Annual Mining Review and Stock Ledger, for the Year 1879* (New York: Mining Review Publishing Company).

New York Times (1873a), "Financial Affairs," Vol. 23, September 14: 6.

New York Times (1873b), "Sketch of Jay Cooke," Vol. 23, September 19: 5.

New York Times (1873c), "The Financial Crisis," Vol. 23, September 20: 1, 4.

New York Times (1873d), "The Contract between Cooke & Co. and the Northern Pacific," Vol. 23, September 21: 5.

New York Times (1873e), "The Financial Crisis," Vol. 23, September 22: 1.

New York Times (1873f), "The Financial Situation," Vol. 23, November 7: 1.

New York Times (1873g), "Business Depression," Vol. 23, November 7: 8.

New York Times (1873h), "Financial Affairs," Vol. 23, November 8: 8.

Poor, H.V. (1860), *History of the Railroads and Canals of the United States of America* (New York: Augustus M. Kelley), 1970 reprint.

Poor, H.V. (1868), *Manual of Railroads of the United States, for 1868-69* (New York: H.V. & H.W. Poor).

Poor, H.V. (1879), *Manual of the Railroads of the United States for 1879* (New York: H.V. & H.W. Poor).

Previts, G.J. and Merino, B.D. (1998), *A History of Accountancy in the United States: The Cultural Significance of Accounting*, 2nd. edn. (Columbus: Ohio State University Press).

Schroeder, A. (2009), *The Snowball* (New York: Bantam Books).

Seitz, D.C. (1926), *The Dreadful Decade, 1869-1879* (New York: AMS Press), 1970 reprint.

Sharpe, W.F. (1981), *Investments*, 2nd. edn. (Englewood Cliffs, NJ: Prentice-Hall).

Smith, M.H. (1870), *Twenty Years among the Bulls and Bears of Wall Street* (Hartford: J.B. Burr and Company).

Smith, M.H. (1873), *Bulls and Bears of New York, with the Crisis of 1873, and the Cause* (Freeport, NY: Books for Libraries Press), 1972 reprint.

Stedman, E.C. and Easton, A.N. (1905), "History of the New York Stock Exchange," in Stedman, E.C. (ed.), *The New York Stock Exchange* (New York: Greenwood Press), 1969 reprint.

Sullivan, A.G. (1876), *Standard Facts and Figures* (New York: Morton & Dumont).

Thompson, J.E. (2008), "Early Books on Investing at the Dawn of Modern Business in America," *Accounting Historians Journal*, Vol. 35, No. 1: 83-110.

Tumbridge & Co. (1875), *Secret of Success in Wall Street* (New York: Tumbridge & Co.).

Vernon, E. (1873), *American Railroad Manual for the United States and the Dominion* (New York: American Railroad Manual Company).

Wall Street Journal (2010), Vol. CCLV, January 6.

Walker, A. (1878), *Hints to Women on the Care of Property* (New York: Harper & Brothers).

WorldCat (2007-2008), *OCLC Online Union Catalog* (Dublin, OH: Online Computer Library Center, Inc.).

Wright, J.W., (ed.) (2001), *The New York Times 2002 Almanac* (New York: Penguin Reference Books).