Accounting, economic development and financial reporting: the case of three pre-Civil War US railroads

Dale L. Flesher
University of Mississippi
William D. Samson
University of Alabama
Gary J. Previts
Case Western Reserve University

Abstract

This study examines three leading US railroads during the years before the Civil War. Although these were private corporations, various governments assisted the railroads. Governmental involvement in the construction of railroads can be justified from the importance that railroads played in economic development in the areas the tracks bisected, as well as justified due to the importance of railroads in linking together a region and for the provision of basic transportation that was otherwise lacking. It was seen that the government investment would have a direct financial payoff; hence, justifiable as a good investment. This examination focuses on the support provided by the public sector and the railroads' actions that acknowledged this public support. Public assistance in financing fledgling railroads had direct impacts upon financial reporting and public disclosure. One of these impacts was that annual reporting, a model used by governments, was introduced to nineteenth century businesses by means of railroads, a quasi-public enterprise.

Keywords: *Railroad accounting; public interest reporting; annual reports.*

Address for correspondence:
Dale L. Flesher
Arthur Andersen Alumni Professor of Accountancy
Patterson School of Accountancy
University of Mississippi
University, MS 38677
USA
Telephone: +1 662 915 7623
Facsimile: +1 662 915 7483
Email: acdlf@olemiss.edu

Introduction

The development of US railroads prior to the Civil War was part of a political and economic plan to achieve reduced costs of transport which, in turn, would expand the marketplace for goods and agricultural products. Railroads were the first large scale enterprises and characterised the first industrial revolution in the US. The railroads were characterised by capital intensiveness, which required large regional and ultimately national capital formation by means of unprecedented amounts of capital, which, in turn, led to separation between the providers of capital and the management of the railroads. This separation, later the fundamental theme of Berle and Means (1932) classic, *The Modern Corporation and Private Property*, is the antecedent to the development of financial statements and annual reporting by management to investors. The reporting and disclosure model from pre-Civil War railroads was adopted by other businesses during the second US Industrial Revolution (Oil, Steel and Manufacturing) and became the format used by twentieth century corporations in their annual reports (Chandler, 1977, p.110). Since these were the first corporations of significant size, their first attempts at financial reporting were acts of creation unaffected by past experiential or theoretical background. In a sense, the earliest railroad reports essentially represented the dawn of US corporate reporting.

The earliest US railroads were financial reporting pioneers. There was little guidance available upon which financial statements could be based, even from other countries. For example, it was not until 1844 and 1845 that British acts were passed that affected railway accounts (Pollins,1956, p.336). According to Pollins, before 1850, there was little in the way of legislative or administrative acts affecting railroad accounting in Great Britain. "There was little experience on which the company could draw, and the majority were cavalier in their attitude to railway finance and accounts" (Pollins, 1956, p.339). Boockholdt (1978) came to similar conclusions, although the earliest report that was discussed was issued in 1841. Boockholdt (1978, p.18) stated "It appears that by the end of the 1840's, however, the practice of reporting receipts and expenditures for periodic intervals had become more common". Other authors have dealt with specific aspects of early railroad reports, such as depreciation and manipulation of accounts (Glynn, 1984), but the contribution of railroads to the concept of financial reporting as a management technique has not been previously addressed, at least not as early as is addressed in this paper.

An important aspect of the evolution of business reporting was the extent that the practices evolved from the public sector. The earliest railroads represented quasi-public, quasi-private activities. The degree of public investment and support for what was otherwise a private business is indeed startling from the modern US perspective. This source of developmental capital, in turn, affected the amount and type of disclosure and the evolution of the business reporting model.

In this paper, three important pre-Civil War railroads are analysed as to the extent and types of public financing and how this public assistance, in turn, influenced the types of disclosure made in the annual reports. The three railroads are the Baltimore and Ohio Railroad, arguably the first US railroad, the Illinois Central, and the Mobile and Ohio Railroads, the latter two of which were the first federal land grant railroads and together became the first transcontinental railroad. Despite their large size and cross-fertilisation of management, the stories of these railroads are different, as was the amount and types of governmental assistance. The financial disclosures made by each also differed as did the impacts that public financing had on financial reporting by these railroads. Despite the differences, the three railroads produced financial reports that were exemplary and, as such, served as the example to be followed by future corporations in America.

The Baltimore and Ohio Railroad

The Baltimore and Ohio Railroad (B&O) was formed in 1827 by merchants of Baltimore as a gamble to preserve Baltimore's dominance as an eastern seaport that had access to the West. Baltimore, the third largest US city, had benefited from the Cumberland Pike – National Road, which was the first "federal highway", because it crossed the Allegheny Mountains through Maryland to link the Ohio River ("the West") with the seaport of Baltimore. This commercial advantage disappeared in 1825 with the opening of the Erie Canal, making the transportation of goods by means of water much cheaper and also enabled New York, as the major seaport, to be connected with the West through the Great Lakes.[1]

The idea of a "railed-road" over the mountains from Baltimore to the Ohio River was a desperate gamble to preserve Baltimore's commercial position. At the time the B&O was being formed, horse-drawn wagons on rails was the planned transportation mode. It would be more than five years later, after the "Tom Thumb" experiments, that steam locomotive technology would secure the company's success.

While profits from investing in the B&O may have been in the backs of some investors' minds, clearly the B&O formation was viewed to preserve the status of Baltimore as a trading centre (that is, the profits would be in the form of increased trade in the shops of the Baltimore merchants). Profits and dividends were not mentioned as the reason for forming the company (Previts & Samson, 2000, p.6). The company's dedication ceremony was marked by a scroll placed in the foundation stone; the scroll read (Jacobs, 1995, p.5):

> The stone is deposited in commemoration of the commencement of the Baltimore and Ohio Railroad, a work of deep and vital interest to the American people. Its accomplishments will confer the most important benefits upon this nation by facilitating its commerce, diffusing and extending its social intercourse, and perpetuating the happy union of these confederated states.

At the time of its formation, almost every citizen of Baltimore purchased a share of stock (Jacobs, 1995, p.13). Thus, civic pride rather than profits made the B&O from its origin a "community enterprise".

The B&O was incorporated by an Act of the Maryland legislature on 18 February 1827. At this time, the corporate form of business was not common; most businesses operated as proprietorships or partnerships. Only businesses with a "long-life" and separate entity status such as banks, insurance companies, and the railroads sought corporate charters granted by acts of state legislatures.

The B&O charter, granted by the Maryland legislature, contained some interesting "public interest" requirements. First, the charter allocated half of the shares to be issued to the State of Maryland and the City of Baltimore. Out of the 30,000 shares issued in 1827, the State of Maryland was to receive 10,000 shares and the City of Baltimore 5,000 shares, in return for capital contributions of $1,000,000 and $500,000 respectively (Previts & Samson, 2000, p.7). Thus the B&O received half of its initial capital from governments. This reflected the public nature of the enterprise. During the construction-to-the-Ohio phase over the next twenty-five years, the percentage of governmental ownership increased to 65 per cent as the State of Maryland and local governments continued to be a source of needed capital for the railroad.

In granting the charter for incorporating the B&O, the Maryland legislature retained the authority to set rates. This "price setting" power of the legislature again suggests that the railroad was viewed as a quasi-public entity, not unlike a water department run by a city today. Certainly, low rates were set by the legislature to help citizens and businesses. Indeed, annual reports often discussed the need for higher rates to generate a fair return for the railroad. However, the state and city, with such a large investment in the B&O, were clearly not going to let the venture fail. This is evidenced by the number of loans and additional stock (even preferred stock) investments made when the B&O ran out of cash, and the acceptance of B&O script (IOUs to suppliers) for tax payments at the full face value (Previts & Samson, 2000). The Maryland charter, which incorporated the B&O, exempted the railroad from tax. Again, the quasi-public dimension to the railroad suggested that it was an agency of the state, and as such, should not have to pay tax to the state.

Beyond the investment made by the State of Maryland and the City of Baltimore, other public investment was also made in the B&O. The City of Wheeling, with the purchase of 5,000 shares for $500,000, guaranteed that it would be the Ohio River terminus for the railroad. Private citizens donated land for the railroad right of way because having a nearby access to the railroad increased property values. Finally, the surveying of the Baltimore and Ohio route was done for free by the US Army Corp of Engineers, who were the topography, surveying, and map-making experts of the day.

Federal funding for the B&O was requested in 1828, but was rejected by Congress. At this time, Congress had voted to support the canal building of the Chesapeake and Potomac Canal with $1 million subscription in stock. This canal was in competition with the B&O as the transportation system to the Ohio (Dilts, 1993, p.106). By 1850, Congress realised the importance of railroads and the need for federal support. This resulted in the land grant legislation which helped the Illinois Central and the Mobile and Ohio Railroads.

A consequence of the incorporation and the public investment in the B&O was the evolution of annual reports to the stage which included the president's letter, financial statements, management discussion and analysis, and tables of financial and non-financial information about the performance of the railroad. This evolution took place within twenty-five years such that by the time the Ohio River was reached, the annual report was a very informative, comprehensive, forthright document.

The B&O corporate charter, issued in 1827 upon passage of the incorporation by the Maryland legislature, required that stockholders be issued an annual "Statement of Affairs". The prototypes of charter upon which the B&O charter was based were those of a few canals, and perhaps municipal incorporations originally. In any event, the details of what was to be included in the "Statement of Affairs" was left unspecified. Implied, given the separation of managers who controlled the investors' resources from the community of investors, would be a stewardship report, accounting on how the resources were being used to develop the railroad. Interestingly, the "Statement of Affairs" grew rapidly in size and details. The 1827 statement was entitled "to the stockholders of the Baltimore and Ohio Railroad". It was a five-page letter from the president to the investors. The 1828 annual report expanded to fifty-five pages and included one table – a construction report. The 1829 and 1830 annual reports increased in length to 105 and 153 pages respectively and contained 12 and 15 tables, mostly about construction costs-actual, budgeted, and cost of alternatives. Clearly, stewardship and cost of construction were the focuses.

The financial statements had their beginning in 1831 with the inclusion of two tables, one detailing the passenger revenues per station per month and a second table detailing the expenses of transportation by type by month. In the 1832 annual report, the revenues and the expense tables were combined into another table which showed revenues – passengers, freight expenses, and "net revenue" by month. This was an early income statement, which was followed by another table – a cash receipts and disbursements table. Thus, these 1832 and 1833 reports represent the first modern example of a private corporation reporting revenues and expenses to stockholders.

In 1833, the revenues, expenses, profits and cashflow tables were moved to the front of the annual report from the rear. The balance sheet, in "T" account format, first appeared in 1840. In 1849, the retained earnings statement – (profit and loss account format) first appeared, as retained earnings developed into a source of capital for the B&O. The B&O reports were far superior, in terms of quality and information provided, to those of other corporations of the time, and also to those Industrial Revolution entities of two generations, and even a century later.

Apart from than the development of financial statements, a large number of very detailed tables containing proprietary information was disclosed for all. This openness was in contrast to the annual reports of the Industrial Revolution in which virtually all financial information was viewed as proprietary. The openness and the detailed presentation of operating information may have been due to the "public interest" feature of the B&O. Indeed the railroad was known as "the B&O University" and its annual reports were viewed as textbooks about railroading, and engineering and financial developments disclosed were closely followed by other railroads (Hungerford, 1928, p.112). Given that the B&O had no theoretical or experiential background upon which to base its statements, the resulting reports are surprisingly forthright.

The first land grant railroads

Railroad construction in the Midwest and in the deep South received a boost in 1850 by the granting of over 3.7 million acres of federal land to be used to finance the construction of north-south railroads. The land grant stipulated the time frame for commencing and for completing the project as a condition for keeping title to the acreage. The first land grant railroads were the Illinois Central and the Mobile and Ohio Railroads. The experience of the federal government in this land grant with these north-south lines would be the basis for a much bigger grant that financed the Western railroad construction a decade later.

The forerunner of the first federal railroad land grant was the federal government's land grant to Midwestern canals in 1828. Because the canals being built in Ohio, Indiana and Illinois were owned by the states, a different form of federal support was used: a grant of federal land to support the cost of construction. Because the building of canals would increase the value of federal lands retained nearby, the Congressmen from the Midwest successfully argued that the land grant of part of the federal land was simply a sound investment which would increase the value of the retained federal acres. The result of this argument led to the alternate-section principle in which alternative plots of land in the five-one-mile widths from the canal were granted to the state to support the construction of canals which were to run from the Great Lakes south. The total amount of federal land in the grant to the canals was approximately 4.5 million acres (Rae, 1944, p.167). As the canal builders were to discover, the land's value would increase dramatically only after the canal was complete; the ability to raise cash by selling lots to finance the actual construction was problematic: only by using the land to borrow funds to build the canal was the value of land fully maximised to the state after the canal was completed.

The Illinois Central Railroad

The railroad grant came about in 1850 as Southern Congressmen, Jefferson Davis and William King joined with Illinois Congressmen Stephan E. Douglas and Abraham Lincoln to sponsor legislation which would cede the title to 2.5 million Illinois acres owned by the federal government in six alternative square mile checkerboard plots per mile of railroad line (Carstensen, 1963, p.128). The stipulation required the railroad to start construction within two years of the act and to complete construction of a line from Chicago to the Ohio River (Cairo, Illinois) within six years. As with the previous grant to the Midwestern canals, the proponents made the argument that the federal land was worthless, as farmers could not get crops to market without the railroad. With the railroad, economic development would occur as farms and towns would be built alongside the railroad. Hence the value of the federal land would rise by an amount to more than offset the value of the land granted to build the railroad. Thus, the land grant was just a government investment in the acres retained.

Upon receipt of the 2.5 million acre grant, the state of Illinois, which was bankrupt from previous attempts at internal improvement projects and in default on Illinois bonds, selected an eastern investment group, headed by railroad financier, Robert Schuyler, to build the railroad.[2] This group of thirteen investors met in New York City on 19 March 1851. They decided to use the maximum leverage (as little of their own money invested) as possible to build the railroad. They started with issuing $1,000,000 of subscribed stock for a $200,000 initial subscription.

This was all the equity that the investors planned to invest in building what was to become at its completion the world's longest railroad. The $200,000 was planned to be spent on the organisation costs and survey of the route. The rest of the construction, estimated at $17 million, was intended to be financed by issuing debt, the debt backed by the federal land grant acres. Further complicating the financing was the strategy not to sell the land until after the railroad had been built and after the federal retained acres had been sold. This was felt to maximise the value of the land for the investors of Illinois Central (IC).

The IC failed initially at raising capital by issuing bonds backed by the 2.5 million acres. European capital markets refused to deal with any bonds with "Illinois" as the issuer, given the previous bad experience with the default on state bonds. The Europeans also worried about the value of the 2.5 million acres as collateral. Finally, the European investors were concerned by the IC's president, Robert Schuyler, whom they viewed as "a gambler rather than a railroad man" (Stover, 1975, pp.35-6).

Eventually, in the spring of 1852, the first IC bonds were placed; $4 million worth were bought by US investors who were attracted to the 7 per cent yield and the option to buy 10 shares of stock with each $1,000 bond. Thus, only after the thirteen original investors realised that the equity had to be increased was capital able to be raised. Two million more dollars were raised from a surprising source, the Michigan Central Railroad which paid the IC for the right to have access to Chicago as its terminus. With this capital in hand, $5 million of bonds were sold in London. These London bonds carried not only a 6 per cent interest rate, and an option to buy five shares of IC stock per $1,000 bond, but the bond investment was scheduled to be made in ten quarterly instalments. The thinking behind the instalment payments was that the cash received would be timed with the construction costs as the railroad was built (Stover, 1975, pp.32-5).

Soon after the bonds were sold and stock options began to be exercised, investor confidence was shaken by a series of events. First, Robert Schuyler, the part-time president of IC was forced to resign from all of the railroads which he controlled because he had been issuing stock in the New York-New Haven Railroad and pocketing the investor's money. This fraud did not involve the IC, but caused investors in Schuyler railroads to panic. The IC bonds fell to 62 per cent of their face amount and IC stock fell as well. When the IC was forced to issue more bonds to pay for additional construction in 1854, the $4.5 million 7 per cent bonds sold for two-thirds of their face value and only $3 million could be raised by this issue.

To raise more money to pay for construction costs, which ran higher than initially estimated, the IC surprised the holders of subscribed stock with a series of demands for subscription payments. The stockholders had been led to believe that only their 20 per cent down payment would be required. Now, in August 1854, additional capital was being assessed. Two other $5 assessments occurred in 1855. The need for capital was due to the fact that 480 miles of the 700-mile line had been constructed at a cost of $18 million. This was more than the original estimate for building the entire line. Eventually the total cost of the 700 miles of track (including a branch line to Galena in Northwestern Illinois) rose to $26 million. By 1856, the IC had reached Cairo, Illinois, and met the terms of the federal grant – to have a railroad that stretched from Chicago on the Great Lakes to the Ohio-Mississippi Rivers. The organisation was seemingly a success. According to the *American Railroad Journal*, "No other Company enjoyed the unlimited confidence of money lenders of England and America to the same extent" as the IC (Corliss, 1951, p.92). This euphoria was quick to change as the Panic of 1857 hit.

The Panic of 1857 caused additional investor fears. Much of the federal land along the IC track had been purchased as a speculation by investors borrowing from the bank to buy the land with the intent of reselling the land at a higher price. The 1857 Panic forced land speculators to sell the acres at depressed prices; those who did not sell found the banks foreclosing on the land and selling the acres off at low prices. The fear among IC bondholders was that the acres of IC land which was collateral for the bonds would not support the debt repayment when the land was sold. The IC, which had been slow to sell its federally granted land until after the line had been constructed and the federally-held land had been sold, reduced its land sale activity, refusing to sell acres at the panic-driven discount prices.

The IC annual reports issued before 1854 were four to eight pages in length with mostly verbal description of the Company's progress in raising capital. Included in these early annual reports were financial statements that were similar to modern cashflow statements and balance sheets. With the commencement of operations and the running of trains on the completed sections of track, the annual report of the IC changed dramatically. It began to focus on the economic development which was occurring because of the railroad. New towns, the opening of coalfields, and growth along the line were all discussed in the 1854 report.

The 1855 report reflected further change. This was the first full year of operations. Revenues, by depot, were also listed by the nature of the item shipped; the 1855 report included a spreadsheet with 32 columns for revenues from the shipment of different types of commodities, including wheat, rye, hogs, whiskey, apples, butter, cheese and coal. The IC management also provided extensive commentary on the economic environment within which the company operated. For instance, a table listed every station along the line, with columns for the population in 1850 and 1855, the number of houses in 1850 and 1855, and the number of churches, schools, stores, hotels, mills, factories, and physicians. The opening pages of the 1855 report, by which time the company was operating 627 miles of track, included the following statements (p.3):

> The abundant harvest of 1855 has given life and energy to the population of Illinois. Enterprising men are hastening thither, and capital is flowing into the State from all parts of the country. In the timber districts, upon the southern line of this road, fifteen or twenty sawmills have been erected – stores and warehouses are in process of construction. Already, fifteen or twenty active enterprising towns are springing into life around the various stations.

The report also mentioned the growth in importance of coal traffic on the railroad, and proved to be quite prophetic with the following statements (p.4):

> The miners at LaSalle and Duquoin have discovered that the local demand from the new villages on the Prairies is of very great value; 20,000 tons have been transported over the road from these localities; and recent researches indicate the existence of other valuable coal deposits near the center of the State, on both the main line and the branch ... . We are fully persuaded that the coal traffic will become one of the most important elements of profit to this road.

The report also predicted that the road could be operated for 50 per cent of its gross revenues.

As might be expected, the report for 1855 also discussed the sale of land to settlers, which amounted to $5,598,577 for 528,863 acres, or over $10 per acre. It was pointed out that since the grant to the company, the federal government had disposed of nearly 3,000,000 acres of land within fifteen miles of the company's tracks, and that the counties adjacent to the railroad had experienced a population increase of over 250,000 between 1850 and 1855 (p.5).

Management took full credit for the economic development in the region served by the company. The 1855 report of the directors concluded with the following paragraph (pp.10-1):

> The Report of the Land Commissioner herewith submitted, and an examination of the statistics of the progress of the country since it has been opened by railroad communication, evidences the great value of the Company's lands, from which, in the opinion of the Board, the entire cost of the road will be realized, leaving free of cost to the stockholders, the revenues of this great highway, which unites the waters of the Northern Lakes, with those of the Ohio and Mississippi, soon to be joined at Cairo by the Mobile and Ohio Railroad … and will, when completed, form the great avenue of communication from the Northern States, to the important cities of the Gulf of Mexico.

In another section of the annual report, the "Report of the Land Commissioner", there were indications that the report might have some public relations or marketing objectives – a factor not atypical from modern annual reports.[3] The land commissioner noted that some of the company's land "is rolling, undulating like the waves of the ocean under the influence of a gentle breeze. The face of the country is interspersed with beautiful groves of oak, ash, etc., many of which are very extensive" (p.42). Other paragraphs in the annual report noted the fertility of the soil, the extensive deposits of coal and other minerals, and the fact that the lands were well watered. This line of argument concluded with the impact on economic development (p.44):

> These lands, with all their productiveness, quarries and mineral wealth, had remained comparatively unsettled and uncultivated till this road was constructed, and would have continued so, in all probability, for many years to come, but for the facilities of travel and transportation furnished by it. For about a third of a century, most of them have been on the market, ... and yet, in very few instances, were purchasers found for them; and if; in process of time, they would have been sold by the government, it would have been for the nominal price of 12 cents per acre ... . Remote from markets, without facilities for transportation, and with roads almost impassable, the cost of hauling the products of the lands to market, and the time employed therein amounted almost to as much as the value of the load ... . Now produce of every kind and stock command ready sales, with choice of markets, and bring nearly the New York prices, less the cost of transportation, and consequently the farmers are growing rich.

> In no other instance, probably, have such abundant benefits flowed from like causes. To the Government, the lands were comparatively valueless; the State, they were in no way profitable; to the farmers, their productiveness was of no avail, while the quarries of stone and marble, and mines of coal with which the lands abound, were wholly undeveloped ... . This Company took these lands thus comparatively valueless ..., and by the expenditure of about twenty millions of dollars, imparted vitality to the whole matter by the construction and equipment of this road.

Referring to the aforementioned statement that "farmers are growing rich", it was noted that "With moderate industry, a settler can earn from these lands the whole amount of purchase money required to pay for them, before his first note becomes due" (p.45).

In the event that the stockholder, or other statement user, could not interpret the underlying meaning of the preceding statements, a concluding paragraph editorialised (p.46):

> The gain to the State has been a largely increased population of industrious, intelligent, and enterprising citizens, chiefly producers, a very heavy increase of taxable property, an immense acquisition of trade and capital, and seven per cent of the gross receipts of this road, which will soon go far towards relieving the people from all taxation for State purposes.

The early annual reports of IC Railroad provide insights into the social and economic implications of the company's operations. During the 1850s, IC was more than just a privately-owned railroad, it was a social experiment – an attempt by government to foster economic development by using otherwise worthless land as the carrot to motivate not only corporate management, but a restless American population as well. The experiment was successful – at least IC management took credit for the growth in population and the increased economic activity in Illinois. Perhaps Illinois would have been settled without the IC, but the timing of the issue of IC's charter was certainly fortuitous and seemingly was the stimulant that led to the development of much of Illinois and points west of that region.

The Mobile and Ohio Railroad

The other original land grant railroad, the Mobile and Ohio (M&O) had been formed in 1848, prior to the 1850 federal land grant legislation. Unlike IC which had the public purpose of developing the unpopulated prairie, the M&O had been formed to preserve the City of Mobile's role as the seaport which handled the South's cotton trade. To maintain this position against New Orleans, Memphis and Charleston, merchants of Mobile met and organised the railroad as the means to secure the cotton trade from the southern interior. In this objective of maintaining the City's economic position, the M&O was very similar to the B&O. Overall, the M&O was sort of a hybrid between the B&O and the IC.

Securing charters from the states of Alabama, Mississippi, Tennessee and Kentucky was the major activity of the M&O during 1848. In 1849, capital was raised by securing stock subscriptions for 20 per cent down at the time of sale. Citizens of Mobile were the main investors in the railroad. So enthusiastic was the city support that a special property tax of 25 cents per $100 of value was passed with the proviso that the tax revenue was to be used by the City of Mobile to purchase M&O stock.

The railroad received a further boost by the 1850 land grant legislation passage. From this legislation, the M&O was to receive 1.2 million acres which lay in checkerboard plots within fifteen miles of the track; every other square mile was kept by the government. Like the IC, the land would be used initially as collateral for construction loans. The land, after the railroad was built, was planned to be sold for more than double its $2.50 pre-railroad value. The proceeds from the land sale would be used to pay off the construction debt.

As a condition of the federal grant, the M&O Railroad was given ten years to reach the Ohio River, opposite Cairo, Illinois, where it would be linked to the Illinois Central Railroad. The initial estimate to build this 472-mile line was $14,500 per mile – for a total of $6.85 million (Bache, 1848, p.585). Like other railroad estimates of construction costs (Flesher et al., 2003, p.378), costs were again underestimated such that raising capital was a continuous ongoing effort and running out of funds hampered the line's completion. Public funds were often used as the source of capital. Like the B&O, the M&O raised equity by forcing towns along the route to buy stock to secure the railroad's route through the town. For example, the City of Columbus, Mississippi, invested $706,000 in M&O stock; this allowed construction that had ceased due to lack of funds to continue through the City of Columbus.

The states also were a source of capital for the M&O. In 1854, the State of Alabama loaned the M&O $400,000 for two years at a 6 per cent interest rate. In 1854, Tennessee amended its 1852 internal improvements act to include a grant of $10,000 per mile of track constructed in Tennessee. Because the state had a shortage of cash resources, it paid the M&O in Tennessee bonds. These bonds were sold by the M&O at a discount.

Private capital was also raised. Like the IC, the M&O had initial difficulty in selling its bonds in Europe. Only after purchasing iron rails from English manufacturers were M&O notes able to be sold through London investment bankers. A year later, the London investment banker bought the M&O thirty-year "sterling" bonds which carried a 6 per cent interest rate and matured in 1884. These bonds were backed by the million acres from the federal land grant. This placement of bonds provided the capital such that the M&O reached the Ohio River opposite Cairo, Illinois on 22 April 1861 – just in time for the start of the American Civil War, which would devastate the railroad.

An examination of the M&O annual reports prior to the Civil War reveals little noticeable influence of the public sector upon the annual report disclosures. The reports contain the usual railroad report tables and schedules detailing the freight and passenger activity on a per station and per month basis, as was reported by the B&O and the IC. Revenues and expenses are shown during the years after operations commenced. Other tables are full of information about the track, terrain, culverts and grade, equipment, and divisional comparisons. Each year's annual report also contains a table about bond indebtedness and unpaid interest. Yet, unlike the IC, there seems to be no discussion about the economic development which the M&O created. Indeed, only the 1856 annual report discussed the acres of land held by the railroad and the resources that those lands contained. This is not to imply that the M&O's financial reports were inadequate. The M&O supplied the same accounting-related information as the other two companies, and at a time when such data were not commonly provided. Perhaps management felt that its audience could ascertain progress without resorting to population statistics. Indeed, the states and cities that had invested in stock were probably more important to the M&O than the federal government, since there was always some question as to whether the M&O would complete its line in sufficient time to allow the company to claim the federal acreage. Further, the authors have ascertained various personnel connections between the management of the B&O and IC; such a connection has not been discovered with respect to M&O management.

Perhaps the most interesting table in the pre-war M&O annual reports is Table 10 of the 1856 (ninth) annual report (published on 23 February 1857). It contains a listing of the major accidents and casualties. To say that railroading was a bloody business is an accurate statement. The table lists the accidents by date during 1856 and describes the injuries. The M&O seemed to take pride in the fact that no passengers were killed or injured, though nine employees were killed and two were injured during 1856. Table 12 in the same annual report measures the cost of the damages due to accidents. What is curious is why these tables suddenly appeared, as they seem to represent a one-time disclosure. No direct information explaining why this information was being revealed can be found. However, other railroads of about the same time revealed their casualties as well. For example, the Baltimore and Ohio Railroad casualty report contained in the 1855 annual report describes thirty-six deaths and twenty-five major injuries. Only two deaths or injuries were passengers, while the majority of deaths and injuries were employees. The rest were "bystanders" (pp.30-1 and Appendix (7 pages) of the 29th annual report of the Baltimore and Ohio Railroad).

Conclusion

Public financing of early US railroads came from state and local governments' equity and debt investments as well as from the federal granting of land and provision of surveying services. The public interest dimensions of the railroads' business that contributed to linking remote regions of the country together and adding large externalities justified government investment in the companies. Railroads were seen as a quasi-public venture in which economic development and protection of the commercial status of a city were more important than profitability of the investment. Although civic pride, rather than investment returns, seemed to be the stated motivation of original investors in the B&O and M&O, a better interpretation might be that a dynamic, curious mixture of strategic considerations, including civic pride and potential economic returns, provided the motivation to invest. At the B&O, in particular, the economic motivation may have been the maintenance of present markets. By contrast, leveraged speculation seemed to be the investment incentive behind the IC.

Public financing varied from railroad to railroad as did the public's interest in railroad reporting. While very little impact of public interest activity could be seen in the M&O annual reports, substantial influence could be found in the B&O disclosures and in the IC annual reports. The annual reports of all three railroads were outstanding, even by modern standards. It is the hypothesis of this study that this quality reporting was influenced by the quasi-public nature of the railroads. The constant need to raise capital to pay for construction of the lines meant that the railroad executives had to disclose financial information to the providers of capital, comprising all capital providers. Management had to report to numerous audiences: American stockholders, short-term creditors both in America and Europe; American bondholders, European bondholders and stockholders, and both state and federal governments. Modern agency problems arose between external providers of capital and managers who controlled the resources. The financial reporting helped resolve the problems. Therefore, the concept of issuing corporate annual reports evolved immediately out of nothingness to highly informative 50 to 150-page reports. What was particularly noteworthy about these reports was the amount of public interest information included. In the case of the IC, more space was devoted to the economic development of the region than to financial information that might be of interest to stockholders.

In summary, the annual reports of the B&O, IC, and M&O railroads may be recognised as state of the art when there was no other art. These companies represent the American foundation of modern corporate reporting. In fact, these reports would be effective models for corporations of today to follow.

Notes

1. Although canals were a competitor to railroads in the 1820s through the 1830s, they differed in that most early canals had been government development projects (which subsequently resulted in the bankrupting of certain states). Thus, the canals, which utilised pre-existing rivers for much of their length, were not necessarily intended to show a profit and had no stockholders to whom to report. Following the Panic of 1837, which was partially caused by states overspending on canals, there was some attempt in the Midwestern states to develop privately-owned canals, but the ventures were mostly failures.
2. The state granted this investor group the franchise to construct and operate the railroad in return for a 7 per cent tax on railroad revenues, which the bankrupt state hoped to use to pay off its debts.
3. For an informative study of the public relations and marketing aspects of annual reports, see Graves, Flesher, and Jordan (1996).

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