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Partner to Plutocrat: The Separation of Ownership from Management in Emerging Capital Markets - 19th Century Industrial America

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Partner to Plutocrat: The Separation of Ownership from Management in Emerging Capital Markets — 19th Century Industrial America

CHRISTIAN C. DAY*

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The industrialization of the United States in the nineteenth century provides a model for successful emerging capital markets. After the American Revolution, the new nation was a “maple syrup republic.” By 1900, the United States was an industrial giant. The early republic needed massive amounts of capital to conquer the continent. American

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This essay is dedicated to two fine gentlemen and teachers, Gordon Bianchi, Ph.D., who instilled a love of history, and Professor Bert Prunty, formerly of New York University School of Law, who was an inspiring teacher of corporate law.

I owe this essay to my dear friend and colleague, Professor Robin Malloy, who asked me to deliver a paper, *From Partner to Plutocrat: The Evolution of the Investor's Identity*, at the Association for the Study of Law, Culture & the Humanities conference, March 7-9, 2002, at the University of Pennsylvania. This article was presented as a paper at “Frontiers in Finance and Economics,” the 7th International Congress of the International Society for Innovative New Ideas, August 22, 2003, Lille Graduate School of Management, Lille, France.

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capital markets and their Big Businesses (such as railroads) created great liquidity and a monitoring system that protected diverse domestic and foreign investors — funneling even more capital to Wall Street.

This article traces the development of capital markets in the United States and the coincident critical separation of ownership from management. Investors in the early eighteenth century were primarily family members, partners, friends, and local people who could directly oversee the operations of the enterprise and who had enough knowledge to ensure it was properly run. As enterprises grew larger, especially canals and railroads that tied large areas together, capital needs exceeded local resources and the management required could not depend on only one person or family.

Investors in large enterprises, removed from direct observation and more sophisticated in their operation than one person or family could manage, required alternate mechanisms to guarantee that investments were being used advantageously and investors' interests were being protected. The key effective capital utilization mechanisms that evolved in the United States were professional management hierarchies, with regular reports and oversight, and a corporate structure of holding rights in the enterprise, with shares that could be freely bought and sold. Additionally, the vital capital accumulation and protection mechanisms that developed were local and national banks, merchant bankers like J. P. Morgan & Co., bond markets and stock exchanges with self-policing policies, and representation of shareholder interests on the corporate board.

The American experience demonstrates how separation of ownership from management, sophisticated industrial monitoring, and equally sophisticated monitoring of capital markets can lead to enormous economic growth.

[I]t is perhaps surprising that [the corporation] succeeded in competition with other forms, such as the joint-stock company, business trust, or limited partnership. It is even more surprising that it succeeded in republican America well before aristocratic England. The unique advantages of a corporation over other devices — such as its permanent governance relations, quasi-monopoly status and perhaps limited liability — must have been strong to outweigh the political disadvantages of the corporate form. But early America did not have great concentrations of wealth and perhaps needed these advantages more than England.¹

1. Joseph H. Sommer, *The Birth of the American Business Corporation: Of Banks,*

I. INTRODUCTION

Much scholarly and practitioner writing has traced the legal and historical development of the corporate form and capital markets in the United States. However, nearly all of these works have omitted a critical piece of the puzzle in their analyses — the identity of the investor. This article seeks to examine and uncover the changes in the legal, economic, and moral personality of investors from 1790-1900,² in order to create a fuller understanding of the rise of corporations and coincident separation of ownership from management³ in nineteenth century industrial America.⁴

The changes in investor behavior will be discussed against a backdrop of several factors — judicial opinions, legislative action, advances in technology, and economic conditions — the combination and interaction of which have affected the evolution of the corporation. While

Corporate Governance, and Social Responsibility, 49 BUFF. L. REV. 1011, 1061 (2001). This quote refers to the early formation of American corporations (1790-1830s) (mainly banks, utilities, and roadways), when nearly all were chartered by special acts of legislatures and many received “special privileges,” which were later fought by the Jacksonians. The concept of the “corporation” embodied in this quote is quite different from the picture of the “modern corporation” at the end of the nineteenth century. The evolution of the corporation was due to the combination and interaction of several factors, including judicial opinions (e.g., *The Trustees of Dartmouth College v. Woodward*, 17 U.S. (4 Wheat.) 518 (1819)); legislative action (e.g., the passage of general incorporation acts); advances in technology (e.g., the railroads and Corliss steam engine); and economic conditions (e.g., the formation of capital markets).

The purpose of this article is to concentrate on the identity and personhood of the investor and how the investor’s legal, economic, and moral personality changed, as opposed to the business’s legal personality. In order to achieve this goal and get a real snapshot of the nineteenth century, it is important to trace the corporation’s evolution with regard to the above factors (though not necessarily in great detail) and make inferences about the reactions, desires, and fears of investors. See Herbert Hovenkamp, *The Classical Corporation in American Legal Thought*, 76 GEO. L.J. 1593 (1988). Hovenkamp lays out a good timeline for events.

2. Because the article concentrates on the change in investor personality and ends around 1900, it does not address the collapse of the markets with the Great Depression. That is beyond the scope of this essay.

3. Professor Brian R. Cheffins ably argues, “A great merger wave occurring in the United States between 1897 and 1903 . . . was the single most important event in a process that yielded the pattern of managerial control and dispersed share ownership which now distinguishes the corporate economy in the U.S. from arrangements in most other countries.” Brian R. Cheffins, *Investor Sentiment and Antitrust Law as Determinants of Corporate Ownership Structure: The Great Merger Wave of 1897 to 1903* 1 (Berkeley Olin Program in Law & Economics, Working Paper 77, Dec. 2002), available at <http://repositories.cdlib.org/blewp/art77>. This essay explains how emerging capital markets and the gargantuan capital requirements of railroads created this seismic shift in business structure.

4. “The separation of ownership from control produces a condition where the interests of owner and of ultimate manager may, and often do, diverge, and where many of the checks which formerly operated to limit the use of power disappear.” ADOLF A. BERLE, JR. & GARDINER C. MEANS, *THE MODERN CORPORATION AND PRIVATE PROPERTY* 7 (1932). While this model does have certain agency problems, the discipline of the market for control and the Wall Street option protect investors by giving them weapons to crudely restrain unprincipled agents.

most corporate characteristics are considered (e.g., the transferability of shares,⁵ centralized management structures, and shareholder voting systems), others are not focused on in great detail (e.g., limited liability, which was not terribly important in the nineteenth century⁶).

5. The other two Black Letter characteristics are limited liability (not terribly important in the nineteenth century) and unlimited life for the enterprise. Neither is as significant as marketable investments. Taken altogether, the corporate structure facilitates the lock-in of capital and its retention for productive uses. Professor Blair believes this nineteenth century development was critical to the development of the modern corporate enterprise. Margaret M. Blair, *Locking in Capital: What Corporate Law Achieved for Business Organizers in the 19th Century*, 51 UCLA L. REV. 387 (2003). The capital lock-in, denying capricious withdrawals that plague partnerships, and the liquidity offered by the modern plutocratic form and capital markets, created an investment model second to none.

6. Although in the twentieth century limited liability came to be thought of as critical, a good deal of evidence from the nineteenth century contradicts this conclusion.

First off, in the early nineteenth century, "small firms sometimes voluntarily wrote into their corporate charters clauses that specified unlimited liability. Throughout the century, moreover, it was common for the officers and leading stockholders of small corporations to endorse personally their company's debts in order to secure commercial credit and bank loans." Therefore, "whatever savings [limited liability] permitted in raising equity capital were offset by higher costs in securing loans." Also, even if it did have the benefit of lowering transaction costs (i.e., transferring shares on securities markets), such benefits would only be felt by the largest corporations (of which there were few). Naomi R. Lamoreaux, *Partnerships, Corporations, and the Theory of the Firm*, 88 AMERICAN ECON. REV. 66, 67 (1998).

Furthermore, banks and other financial institutions often limited liability by issuing non-recourse instruments, hence isolating their investors from liability if the bank defaulted on its paper. Oscar Handlin & Mary Handlin, *Origins of the American Business Corporation*, 5 J. ECON. HISTORY 1, 8-17 (1945).

Third, the legal environment of the day and people's views on risks and responsibility were quite different. While there was contract and tort litigation, society was not as litigious as it is now. Also, rules such as the "fellow servant rule" created barriers for tort victims.

In any case, questions of limited liability rarely came up in the early days of American corporations. They first formed in economic sectors that were thought to involve relatively little risk. Even if companies faltered, the government usually stepped in with the aid of lotteries, land grants, and increased tolls. *Id.* at 16. Ultimately, the expansion of the corporate form into riskier areas brought the question of liability to the fore:

In the beginning of the nineteenth century, state legislators tended to impose unlimited liability on corporate shareholders apparently because of a belief that without the security thus furnished to corporate creditors, manufacturing and industrial concerns would not find it possible to amass the necessary capital with which to operate their businesses, and thus ultimately to benefit the public. By the fourth decade of the nineteenth century, however, virtually all of the state legislatures appear to have arrived at the judgment that the furthering of capital formation could best be accomplished by encouraging shareholders to invest through limiting their liability.

Stephen B. Presser, *Thwarting the Killing of the Corporation: Limited Liability, Democracy, and Economics*, 87 NW. U.L. REV. 148, 155 (1992).

Judicial decisions by the courts in the first three decades of the nineteenth century also helped to shape the emergence of limited liability. However, none of the changes in law or judicial interpretations affected the rate of incorporation, reinforcing the view that limited liability was not the driving force. Handlin & Handlin, *supra* note 6. *But see* Peter L. Rousseau & Richard Sylla, *Emerging Financial Markets and Early U.S. Growth* 7 (Vanderbilt University, Dept. of Economics, Working Paper No. 00-W15, May 2000), available at <http://www.vanderbilt.edu/>

Early corporations in the late eighteenth century, typically chartered under special acts of incorporation by states for a limited public purpose and granted with special privileges, paled in number to the dominant forms of business at the time — partnerships and proprietorships. However, the war debt amassed after the American Revolution would soon force the country to choose an economic model that would lead to the rise of great corporations and transform the nation into a “commercial empire.” This model, proposed by the first Secretary of the Treasury, Alexander Hamilton, would defeat a competing vision offered by another great Founder, Thomas Jefferson, who had a deep distrust of commercial society. Hamilton’s model, patterned after the British experience, called for the assumption and monetization of state war debts, the establishment of a national bank, and the promotion of trade and credit.

Although initially feared, the nation would rapidly embrace Hamilton’s ideals. The expansion of industry and development of new technologies, particularly railroads, would require massive amounts of capital that the partnership form simply could not provide. Moreover, partnerships had several disadvantages — unlimited liability, the potential for hold-up, and imperfect monitoring — that could only be cured by the adoption of the corporate form. Investors, formerly active owners in small partnerships, would place their trust in the self-regulation policies of anonymous capital markets (e.g., the New York Stock Exchange) and investment banking firms (e.g., J. P. Morgan & Co.) to become dispersed, passive shareholders in large railroad corporations. In turn, railroads would widely open markets, spur urbanization, and lead to the growth of wealth and capital in other industries.⁷ Furthermore, railroads would mandate a change to plutocratic systems of shareholder voting and promote the development of sophisticated hierarchies of corporate management and oversight.

The next section begins the story in late eighteenth century, pre-industrial America. The Federalist economic program that laid the foundation for a finance-led economic revolution follows. The Article then turns to the role of banks and securities markets. Partnerships and business corporations before the advent of railroads set the stage for the plutocratic form of governance. The sections following show how rail-

Econ/wparchive/workpaper/vu00-w15.pdf, and Peter L. Rousseau, *Historical Perspectives on Financial Development and Economic Growth*, 85 FED. RES. BANK ST. L. REV. 81, 92 (July/Aug. 2003), available at <http://research.stlouisfed.org/publications/review/03/07/Rousseau.pdf> (arguing that limited liability for American banking corporations was critical in the development of banks and capital markets).

7. This results in the separation of ownership and management detailed by BERLE & MEANS, *supra* note 4, at 6.

roads mandated the plutocratic model. The Boston & Albany and Erie roads demonstrated the need for modern management structures and massive amounts of capital — dictating the success of the plutocratic model. The Article concludes with an exposition of how capital markets addressed the hold-up and monitoring problems associated with businesses. It shows how investment bankers like Morgan and the New York Stock Exchange guarded the public interest and provided essential liquidity, only available in plutocratic corporations.

II. LATE 18TH CENTURY, PRE-INDUSTRIAL AMERICA

In the late eighteenth century, America was in a pre-industrial stage and businesses were really local businesses. The vast majority were conducted as partnerships and proprietorships.⁸ Most of the economic activity and market exchanges were local as well as the American continent had primitive transportation. The necessity of better transportation would create the demand for “public works” projects like turnpikes, canals, etc. — most built by the earliest corporations chartered under special acts by state legislatures.⁹ While there was some coastal trade between states and oceanic trade with Europe and the West Indies, primitive networks of roads did not encourage trade or the development of businesses of any magnitude.

Roughly six percent of the nation’s five million people resided in urban areas in 1800. Sixty percent lived in towns of less than 25,000.¹⁰ A comparison of population data from the late nineteenth century to these figures underscores the development of “urbanization” along with major industries. By 1900, the U.S. had a population of over 76 million, with 39.6% of people living in urban areas.¹¹

Households were the predominant economic unit and they functioned in a hierarchical manner. The father controlled production, represented the family’s interests to the outside world, and organized the economic activity,¹² which replicated the rural experience within small

8. Today, the bulk of American businesses are small businesses and about 75% are still partnerships and proprietorships. ROBERT HEILBRONER & LESTER THUROW, *ECONOMICS EXPLAINED* 45 (1998).

9. Joseph S. Davis, *Charters for American Business Corporations in the Eighteenth Century*, 15 PUB. AM. STAT. ASS’N 426, 429 (1916). For one of the best general accounts of late eighteenth century American corporate development, see 2 JOSEPH STANCLIFFE DAVIS, *ESSAYS IN THE EARLIER HISTORY OF AMERICAN CORPORATIONS* (1917).

10. Naomi R. Lamoreaux et al., *Beyond Markets and Hierarchies: Toward a New Synthesis of American Business History* 12 (NBER Working Paper No. w9029, July 2002), available at <http://www.nber.org/papers/w9029>.

11. UNITED STATES CENSUS BUREAU, *URBAN AND RURAL POPULATION: 1900-1990*, available at <http://www.census.gov/population/censusdata/urpop0090.txt>.

12. Lamoreaux, *supra* note 10, at 12.

stores and shops. The husband was in charge, but his wife was frequently his second in command. Production within shops and stores was along gender lines for division of labor. Journeymen, apprentices, and other employees often lived with the family and were subject to the discipline of the master of the household, similar to his family.¹³

Thus, late in the eighteenth century and into the beginning of the nineteenth century, much of America's economic activity centered on the home and small businesses that replicated the management functions of subsistence farms. However, the new nation would soon be on the verge of economic change as it attempted to place itself on a strong economic footing.

With victory in the American Revolution, the nation came to a fork in the road. There were two economic models offered by two titans of the first cabinet: the Jeffersonian model of agrarian democracy and yeoman farmers (which was really an anti-commercial, anti-industrial model)¹⁴ and the Hamiltonian commercial empire. America has never lost sight of these two paradigms. The Hamiltonian-Jeffersonian conflict continues to play out in American politics, but from the standpoint of the markets, Hamilton was triumphant. His commercial model laid the foundation for America as a capitalistic nation.

Whether one likes Jefferson or not, his model, while in many instances status based, is also very personal and comforting. There were good reasons for the farmers throughout the United States to dread the Hamiltonian model. Farmers and small merchants feared a loss of control. This loss was experienced when their products reached the commodity markets in the big cities of Boston or Philadelphia or Baltimore. Anonymous markets and speculators could prey upon rural merchants and farmers. No one's status protected him or his family from the vicissitudes of these markets. Jeffersonian concerns still retain their appeal today. People fret about the forces of global capital markets and their influences on their lives. However, despite such discomfiture and worries (similar to those articulated by America's early forebears who opposed Hamilton and his economic plans), Hamilton won. His approach to capital formation and the national debt led to the concentration of wealth in capital markets and larger businesses. The next section takes up the story of how Hamilton's financial plans helped to establish

13. *Id.* at 12-14.

14. "Jeffersonian thought was motivated by an agrarian ideology. Jefferson envisioned the United States as a nation of farmers, 'those who labour in the earth.' He feared that manufacturing subsidies and bounties would drain the farm economy and encourage development of a privileged class of the kind that accounted for so many of England's problems." Hovenkamp, *supra* note 1, at 1610-11.

robust capital markets and set the nation on the road to becoming a commercial empire.

III. THE FEDERALIST ECONOMIC PROGRAM: FOUNDATION FOR A FINANCE-LED ECONOMIC REVOLUTION?

The Federalist economic program of Alexander Hamilton and the nascent American banking system (discussed *infra*) seems to have provided the framework for a finance-led economic transformation of the American continent. "By any standards, the U.S. economy experienced a near-miraculous turnaround in the last decade of the 18th century, when it made the transition from a defaulting debtor awash in obligations left over from the war of independence to a magnet for international capital flows."¹⁵ However, the results and the success of Hamilton's plans were not pre-ordained.

America, at the conclusion of the War for Independence, was a weak debtor nation. It owed \$2 million to Dutch banking houses and about \$5 million to the French.¹⁶ In 1786, the total income of the central government was less than one-third of the charges owed the national debt.¹⁷ The situation under the Articles of Confederation worsened. The Confederation was burdened with huge debts because it lacked taxation powers; hence, it could neither pay, nor service the debt. Debt instruments traded for a fraction of their face value in illiquid and unorganized capital markets.¹⁸ The simple financial intermediation system was comprised of just three banks: one in Philadelphia, one in Boston, and one in New York.¹⁹ America's money supply consisted of foreign coin and specie, fiat paper money from the states as well as local notes, and deposits from the three banks.²⁰ Speculators bought up debt from soldiers and suppliers to the army. There was widespread concern that the United States would default on the debt owed to its foreign supporters and its own citizens. The Constitution created a new republic, with powers sufficient to build a strong nation if they were prudently wielded. By 1790, Washington's government faced a federal war debt owed to American citizens of approximately \$40 million (\$27 million in principal, and \$13 million in interest arrears). The total war debt, federal, state and foreign, was a staggering \$76 million.²¹

15. Rousseau, *supra* note 6, at 92.

16. See STUART BRUCHEY, ENTERPRISE: THE DYNAMIC ECONOMY OF A FREE PEOPLE 118 (1990) (All dollars are nominal and have not been adjusted for today's value).

17. *Id.* at 118.

18. Rousseau & Sylla, *supra* note 6, at 5.

19. *Id.*

20. *Id.*

21. The total war debt was about \$76 million in 1790. See JOHN FERLING, A LEAP IN THE

Hamilton became the architect of the nation's success. As the first Secretary of the Treasury, he was armed with federal taxation powers to create a system of sound revenue finance. Hamilton understood that he had to overcome the states' reluctance to tax themselves to fund the nation's debt. He wanted to minimize conflicts "over available sources of revenue because he wished above all to minimize political challenge to the Constitutional settlement."²² Hamilton's idea was to convert the states' debts to a national debt (assumption of the debt) and fund the repayment out of federal taxes that only indirectly touched upon the people — imposts on higher priced imported goods and excise taxes.²³ This scheme removed the prickly matter from the province of the states and local politics, strengthened the federal government, and established a good course for the economy. Further, when the plan proved to be successful by strengthening the economy, federal revenues rose, making the assumption and repayment scheme even sounder.

Hamilton, the astute student of finance that he was, borrowed much of his program from Britain's successful management of its national debt. By 1790, the British debt stood at £272 million. It had steadily increased from £16.7 million in 1700, to £131 million in 1763 (the end of the Seven Years' War), to £245 million after the American Revolution.²⁴ Yet, tiny England prospered and controlled a huge global empire. The financial secret was that the Bank of England had modernized revenue collection and successfully monetized the debt by permitting the bonds to be used by merchants and others as collateral for loans.²⁵ Hence, bankers and other financial capitalists increased the money supply by granting loans to debtors possessing this very secure collateral. If the loans went for business purposes, the commercial capital of the nation increased. This was a great "twofer." Great Britain funded its

DARK: THE STRUGGLE TO CREATE THE AMERICAN REPUBLIC 316 (2003). The federal government owed about \$40 million to Americans. See WILLIAM G. ANDERSON, THE PRICE OF LIBERTY: THE PUBLIC DEBT OF THE AMERICAN REVOLUTION 41 (1983). The federal government also owed \$11.7 million in foreign debt. *Id.* at 57. States owed \$25 million in war debt. *Id.* at 35.

To put things in modern perspective, the 1790 war debt was two to three times national income. It might be thought of as a \$20-30 trillion national debt against our \$11 trillion income in 2003! (Our present debt, large as it seems, is somewhat more than \$6 trillion.) I derived this by making some calculations. Bruchey thought the GNP to be between 10-15 percent of American exports. BRUCHEY, *supra* note 16, at 382-83. Since our exports were approximately \$2.4 million, the GNP must have been between \$27 million and \$41 million. (Calculations on file with author.) Hence the total war debt was two to three times GNP!

22. BRUCHEY, *supra* note 16, at 120.

23. *Id.*

24. JOHN STEELE GORDON, HAMILTON'S BLESSING: THE EXTRAORDINARY LIFE AND TIMES OF OUR NATIONAL DEBT 2-3 (1997). All sums are nominal and have not been adjusted for inflation.

25. The British national debt was funded by long-term bonds (and some not maturing called Consols) that were traded in the marketplace. *Id.* at 4.

war debts and other public purposes at the same time. The commercial community built up trade and later, industry. Thus, the debt was liquefied. This monetization permitted funds to flow smoothly to where they were needed for commerce and industry.²⁶

Britain's plan was an elegant recipe for success. As Secretary of the Treasury, Hamilton was smart enough to copy it and eloquent enough to convince Americans to adopt it. He knew that the United States required sound money and market liquidity. An unpopular (but necessary) step was to honor all Revolutionary War debt. This was unpopular because speculators had purchased the debt cheap from soldiers, farmers, small investors, etc. The honoring of the debt would prove to be a windfall to those opportunists and speculators. Nonetheless, the federal government had to prove it would not capriciously choose which debts to pay, thereby establishing sound national credit for the infant republic.

Hamilton's economic plans in his Report on the First United States Bank²⁷ and Report on Manufactures²⁸ called for a bold, federalist government that sanctioned commercial enterprise and industrial development.²⁹ This mercantile development needed solid capital markets and federal revenue and monetary policies to stimulate growth in the new republic. Ultimately, the markets created would come to be dominated by industrialists.³⁰ Hamilton would sanction the large capital pools that efficiently allocate scarce financial resources among competing entrepreneurs and businesses. He would not be afraid of commercial dominance; rather, he would welcome it.

Indeed, Hamilton's economic programs — the establishment of the First United States Bank, the refunding of the American Revolutionary War debt, the stimulation of trade and credit — were devised to create a commercial empire.³¹ They also had the effect of favoring the trading

26. *Id.* at 1-4.

27. Report on a National Bank (Dec. 13, 1790) [hereinafter Report on a National Bank], in ALEXANDER HAMILTON: WRITINGS 575-612 (Joanne B. Freeman ed., 2001) [hereinafter HAMILTON: WRITINGS].

28. Report on the Subject of Manufactures (Dec. 5, 1791) [hereinafter Report on Manufactures], in HAMILTON: WRITINGS, *supra* note 27, at 647-734.

29. Recent studies have supported a "finance-led" growth in the United States. Innovative capital markets providing both debt and equity financing to emerging businesses and technologies were central to growth and modernization. Rousseau & Sylla, *supra* note 6. See also Rousseau, *supra* note 6.

30. Initially, they were merchants, mill owners, toll road and canal builders, and railroad entrepreneurs. Later in the nineteenth century, oil, steel, sugar, and mining magnates were financed. All have followed the Hamiltonian commercial path.

31. For an entertaining piece on the relationship between Hamilton and Wall Street, see Howard M. Wachtel, *Alexander Hamilton and the Origins of Wall Street* (Economics Working Paper Archive at WUSTL, Economic History Series, 1996), available at <http://netec.mcc.ac.uk/>

and industrializing Northeast and Mid-Atlantic States over the agrarian interests of the South and West. In brief, Hamilton's policies preferred capitalists, merchants, and creditors over farmers, small town interests, and debtors. They established a firm foundation for national credit and jump-started the commercial society the United States enjoys today.

As noted, there was great opposition to Hamilton's plans.³² Some of it was from the states, such as Virginia, that had already repaid much or all of their debt. Virginians looked at the assumption plan as a wind-fall for states that had not honored their obligations. Further, Virginians were unhappy that some of the funds to repay the debt would find their way into the hands of English and Scottish merchants, who were often creditors of Virginia tobacco planters (and often despised on that account). There was also opposition from small farmers and soldiers who had sold their bonds at a deep discount to urban merchants.

Hamilton's cast of mind was instinctively economic. He visualized the concentration of capital in the hands of a select few as the essential pre-condition for commercial investment and economic growth. One of the reasons he did not mind if original holders of government securities sold out to speculators was that he preferred to see the money in fewer hands. When money was spread out, it was only money. When concentrated, it was capital. And the main reason he welcomed the enlargement of the federal debt produced by assuming the state debts was that, once properly funded, it enlarged the pool of government credit for investment purposes by the wealthy few who held the notes. In this limited sense at least, Hamilton regarded the national debt as "a national blessing," for it permitted the clustering of resources in the hands of a small group of enterprising men who would invest and not just spend it. For Madison, on the other hand, "a Public Debt is a Public curse," and "in a Representative Government greater than in any other."³³

Hamilton was right on point with respect to the short-term effects from consolidation of the debt and its refunding, which led to the concentration of capital. However, that great capital pool eventually expanded and became democratized as American capital markets developed and flourished over the next two centuries.

Hamilton's plan was fortuitously enacted by Congress. Although,

WoPEc/data/Papers/wpawuwpeh9610001.html. For Hamilton's career as Treasury Secretary, see RICHARD BROOKHISER, *ALEXANDER HAMILTON: AMERICAN* 75-128 (1999).

32. Hamilton's plan for the assumption of the debt is found in his First Report on Public Credit. See Report on the Public Credit (Jan. 9, 1790), in HAMILTON: WRITINGS, *supra* note 27, at 531-74.

33. JOSEPH J. ELLIS, *FOUNDING BROTHERS: THE REVOLUTIONARY GENERATION* 64, citing Madison to Lee, 13 April 1790, ROBERT A. RUTLAND, ET AL., 22 *THE PAPERS OF JAMES MADISON* 147-48 (1962).

the deal was actually struck at one of the most successful dinner parties in American politics.³⁴ Thomas Jefferson, the Secretary of State and Hamilton's opponent, hosted a dinner party in the summer of 1790 for Hamilton, James Madison (another opponent of Hamilton), and himself. The dinner conversation laid the groundwork for a great compromise — the South was to be the site of the new U.S. capital (hence, the creation of the District of Columbia as the Federal City) in exchange for the South's support for Hamilton's plans. Madison and Jefferson advanced Southern interests by wresting the capital from the corrupt influences of northern cities, commerce, and industry.³⁵ In return, they would rally the South behind the assumption plan. Pennsylvania acceded to the deal and supported it because the federal capital was to be moved from New York City to Philadelphia for ten years prior to its move to the District (Pennsylvania held out hope that after ten years in the hospitable climes of Philadelphia, the plan to move the capital south would be abandoned).³⁶ Hamilton got the better of the deal and the assumption of the debt put America and its economy on a strong footing.

The American debt was also monetized, following the Bank of England model.³⁷ The new federal debt was known as "Hamilton 6s" (because of the interest rate).³⁸ The Hamilton 6s were redeemable at par, like consuls. They were extremely popular and very quickly established their value, regularly trading above par (indicating the strength of the investment).³⁹ Monetization accomplished two important goals: it provided necessary funds to operate the government and greatly increased the liquidity of the economy (and that attracted more capital).⁴⁰ Finally, historian Richard Hildreth has neatly summarized the long-term effects of the Hamiltonian policies:

The great secret of the beneficial operation of the funding system was the reestablishment of confidence; for commercial confi-

34. The dinner bargain described here is the "traditional account" of the event. However, the exact details of the dinner, as well as its overall importance, have been hotly contested. Cf. Jacob E. Cooke, *The Compromise of 1790*, 27 WILL. & MARY Q. 523 (1970) and Kenneth R. Bowling, *Dinner at Jefferson's: A Note on Jacob E. Cooke's "The Compromise of 1790"*, 28 WILL. & MARY QUART. 629 (1971).

35. GORDON, *supra* note 24, at 30.

36. See *The Dinner*, in ELLIS, *supra* note 33, at 48-80. The White House was probably located at 1600 Pennsylvania Avenue to compensate the Commonwealth for its great loss.

37. While the American public debt system resembled England's, the federal fiscal system bore close resemblances to that of the Dutch. See NIAL FERGUSON, *THE CASH NEXUS: MONEY AND POWER IN THE MODERN WORLD, 1700-2000*, at 115 (2001).

38. *Id.*

39. See Rousseau & Sylla, *supra* note 6, at 6, and GORDON, *supra* note 24, at 38-39 (by 1794, the United States had the highest credit rating in Europe and some of its bonds were selling at ten percent over par!).

40. GORDON, *supra* note 24, at 11-41.

dence, though political economists may have omitted to enumerate it among the elements of production, is just as much one of those elements as labor, land, or capital—a due infusion of it increasing in a most remarkable degree the productive activity of those other elements, and the want of it paralyzing their power to a corresponding extent. By restoration of confidence in the nation, confidence in the states, and confidence in individuals, the funding system actually added to the labor, land, and capital of the country a much greater value than the amount of debt thereby charged upon them.⁴¹

Thus, Hamilton correctly reported that the government's monetary policies were necessary to attract both domestic and foreign capital.⁴² He accurately foresaw that America would need to import European capital.⁴³ Hamilton presaged what happened in the nineteenth and twentieth centuries as America's sound monetary policies and investment opportunities attracted foreign capital to build, sustain, and expand a continental economy.⁴⁴

IV. THE EARLY ROLE OF BANKS AND SECURITIES MARKETS⁴⁵

The nation had restructured its large war debt within five years of the ratification of the Constitution. It had introduced the dollar as currency and created a national banking system. This banking structure linked securities markets and gained the confidence of many European investors.⁴⁶ By the 1840s, state governments had chartered more than 800 banks and securities markets grew, providing short and long-term debt, as well as equity, to finance new technologies and governmental

41. Richard Hildreth, *THE HISTORY OF THE UNITED STATES OF AMERICA*, Vol. I, at 276 (1856), quoted in BRUCHEY, *supra* note 16, at 129.

42. The aid of foreign Capital may safely, and with considerable latitude be taken into calculation. Its instrumentality has been long experienced in our external commerce; and it has begun to be felt in various other modes. Not only our funds, but our Agriculture and other internal improvements have been animated by it. It has already in a few instances extended even to our manufactures.

It is a well-known fact, that there are parts of Europe, which have more Capital, than profitable domestic objects of employment. Hence, among other proofs, the large loans continually furnished to foreign states. And it is equally certain that the capital of other parts may find more profitable employment in the United States, than at home. And notwithstanding there are weighty inducements to prefer the employment of capital at home even at less profit, to an investment of it abroad, though with greater gain, yet these inducements are overruled either by a deficiency of employment or by a very material difference in profit. Both these Causes operate to produce a transfer of foreign capital to the United States. Report on Manufactures, *supra* note 28, at 677-78.

43. *Id.*

44. "By 1801 Europeans held \$33 million in U.S. securities, and European capital was helping mightily to build the American economy." GORDON, *supra* note 24, at 39.

45. Sommer's article contains detailed information on the development of American banks. Sommer, *supra* note 1.

46. Rousseau & Sylla, *supra* note 6, at 2.

operations.⁴⁷ Within two years of the refunding legislation, trading was so great in federal and state securities that brokers formed an exchange that was to become the New York Stock Exchange (NYSE). Within 100 years, the NYSE would eclipse London's as the greatest exchange in the world.⁴⁸ As evidenced in the following section, the monitoring function of the NYSE and of the great investment banks provided a proxy for control that induced domestic and foreign investors to flood the United States with capital in the nineteenth century.

While there were only three banks in 1789, 28 banks were chartered in the 1790s. In the next decade, 73 more were chartered. They were quite profitable and often yielded eight percent on invested capital. By 1825, it is estimated that English equity was not significantly greater than U.S. bank equity (the Bank of the United States and state-chartered banks) of \$138 million.⁴⁹ Therefore, the English and American capital markets were about the same size by the mid-1820s, even though the English had a century's lead time. The fact that the U.S. had the same amount of capitalization with fewer listed firms supports the inference that the U.S. was more heavily capitalized. This was a consequence of its lead in chartering banking corporations with limited liability. While both capital markets listed utilities and transportation, insurance, and manufacturing companies, the big difference was in bank capital. America had a lot of it to lend due to its liberal chartering policies.⁵⁰ There were 834 banks by 1840 and by 1860 the number had nearly doubled again. Bank capital increased from \$3 million in 1790 to \$426 million in 1840.⁵¹ Both the Bank of the United States and state banks were corporations that had limited liability, probably aiding in their success and expansion.

While the United States did not invent the bank corporation, the American approach was quite different from the privileged monopolies of other banks such as the Bank of England. American charters did not grant monopoly privileges. As a result, American banks and businesses thrived in the atmosphere of competition. Only in the mid-nineteenth century did European nations begin to create competitive banks.⁵²

It is a stylized fact . . . that England was the financial leader of the nineteenth century. The pound sterling the world's leading currency, London and the Bank of England the center of the world's finances, and the London capital market intermediated the interna-

47. *Id.*

48. GORDON, *supra* note 24, at 39.

49. Rousseau & Sylla, *supra* note 6, at 12.

50. *Id.* at 13.

51. *Id.* at 6.

52. *Id.* at 7.

tional flow of capital. Much less known is that as early as 1825, the United States, with a population still smaller than that of England and Wales (11.1 versus 12.9 million), had roughly 2.4 times the banking capital of the latter This was not entirely the result of the U.S. financial revolution. English policy, and in particular the monopoly privileges of the Bank of England and the restriction of all other banks to unlimited-liability partnerships of six or fewer people, retarded banking development in that country until 1825, when the policy was altered to allow joint-stock banking with unlimited liability.⁵³

American enterprise was also given a boost by the development of securities markets. With the 1790 debt refinancing and the creation of the Bank of the United States in 1791, securities markets arose in America's four major cities: New York, Boston, Philadelphia, and Baltimore. These markets gave investors the opportunity to trade both debt and equity issues. They also provided domestic and foreign investors with liquidity, thereby giving them the courage to invest in the new nation. The success of the markets is demonstrated by the fact that more than half the federal debt and Bank of United States stock and more than half of the listed securities were owned by Europeans.⁵⁴ Thus, the early securities markets, the Bank of the United States, and the competition of state banks provided a growing pool of capital for businesses that needed it. As corporations evolved and became engaged in larger enterprises, such as canal and rail networks, the capital markets would further the growth of the economy. That expansion was coming and would build on the capital markets; but, the nation was not there yet.

V. PARTNERSHIPS BEFORE THE ADVENT OF THE RAILROADS

Before railroads burst on the scene and knitted the nation together, creating national markets and gigantic businesses, nineteenth century businesses were predominately proprietorships and partnerships with a smattering of non-banking corporations. Business size was limited as the size of markets (without railroads or canals) was also limited. The availability of capital was restricted as proprietors and partners relied on their personal credit and that of friends and neighbors.

Partnerships were relatively small businesses that were owned and controlled by a small number of people. The partners had intensely personal relationships with their employees, community, creditors, and their product. Actually, if one thinks about the law of partnership, the partners were the business. There was a certain transparency in that, if one

53. *Id.* at 7-8.

54. *Id.* at 8-9.

was a partner, he was the business. His credit was the business's credit; his botched, defective, or dangerous product was his liability. There really was no separation of interest at that particular time. There are probably very good moral and philosophical reasons for that. The intimate local control gave the people most closely affected by the products or services of partnerships power and recourse if something went wrong. The community also possessed the ability to distinguish between good purveyors of a service and bad purveyors. The drawback, of course, was unlimited liability, which hampered credit and the ability to expand. Partnerships had another drawback as well — they typically terminated upon the death, retirement, or withdrawal of partners.

Partnerships were frequently chosen for business operations because they “reduced particular classes of transaction costs, mitigated certain types of opportunism, facilitated monitoring, or promoted certain types of direction-taking and giving.”⁵⁵ Also, partnerships were more likely to be used in occupations where individuals were “involved in complex, team-oriented tasks where attributing output to specific individuals is difficult.”⁵⁶ However, if some members of the firm were clearly more productive than others, an equal sharing scheme would result in the more productive partners subsidizing the less productive ones. Therefore, partners had an incentive to select individuals with similar levels of experience and productivity.⁵⁷ This obviated the need to engage in the traditional preceptor relationship.

In addition, partnerships gave the partners a sense of ownership and control. Indeed, the common default was that all partners managed the business and shared the profits of the enterprise. This was all beneficial, but partnerships had another major disadvantage — hold-ups by partners, business suppliers, and creditors.⁵⁸ Since creditors and suppliers were not members of the firm, the partnership had to contract with these important persons to protect its livelihood. Imperfect contracts empowered creditors and suppliers to “extort” rents from the productive partnership. On the other hand, the modern corporation, with its access to large pools of capital, has the ability to capture these resources through horizontal and vertical integration, eliminating some of these hold-up opportunities.⁵⁹

Hold-ups occurred because, under partnership law of the nineteenth

55. Howard Bodenhorn, *Partnership and Hold-Up in Early America* 16 (NBER Working Paper No. w8814, Mar. 2002), available at <http://www.nber.org/papers/w8814>.

56. *Id.*

57. *Id.* at 18-22.

58. *Id.* at 8-9.

59. In more modern times, the conglomerate corporation of the 1960s was able to use its market power and access to credit and markets to hinder hold-ups.

and most of the twentieth centuries, partners could threaten the firm's existence by withdrawing or threatening to withdraw. Bodenhorn found that partners were sometimes forced to accept disadvantageous terms after they had invested because the partnership relation or specific sunk assets exposed the partners to the opportunistic behavior of their co-investors.⁶⁰ The fear of hold-up can lead to "inefficiently low levels of investment."⁶¹ Moreover, hold-ups can occur at any time, "from initial negotiations in forming a partnership to one partner threatening premature liquidation if the other refuses to concede a portion of his or her share of the firm's profits."⁶² Ultimately, the combination of "asset specificity"⁶³ and "imperfect contracts"⁶⁴ will establish the greatest potential for hold-ups.⁶⁵

Partnerships persist as a prevalent business form because they have certain value for specific economic activities. Partnerships are most valuable and desirable in human-capital intensive industries where it is difficult to observe product quality. This explains the concentration of partnerships in professional service industries such as accounting, law, medicine, investment banking, engineering, architecture, etc.⁶⁶ Partnerships are generally not found in large businesses where the monitoring of products or services can be quantified by scientific management practices.⁶⁷ Hence, the virtue of partnerships in professional services and other such businesses becomes a drawback when great businesses must be constructed and other methods of monitoring must be employed.

60. Bodenhorn, *supra* note 55, at 7.

61. *Id.*

62. *Id.* at 8.

63. Four types of asset specificity include: site specificity; physical asset specificity; human asset specificity; and dedicated assets. See Oliver E. Williamson, *1982 Merger Guidelines: Vertical Merger Guidelines: Interpreting the 1982 Reforms*, 71 CALIF. L. REV. 604, 613-614 (1983).

64. The more complex the transaction, the more likely possible contingencies will not be realized. These unforeseen contingencies could create problems of hold-up after the partnership is formed if partners are not able to reach agreement. For example, if one partner has leverage over the others, he could force them to give into his terms or face dissolution of the partnership.

65. Recent studies of corporate governance recognize that stakeholders other than shareholders (i.e., suppliers, customers, neighbors and employees) make investments specific to their relationship with a firm. . . . At the same time, the firm may undertake specific investments to attract and accommodate employees, neighbors, suppliers, and customers. In the absence of complete contracts, one party can threaten to terminate the relationship and destroy the value of the sunk asset as a bargaining ploy to capture a greater share of the gains from the trade. This is the essence of hold-up. . . .

Bodenhorn, *supra* note 55, at 8-9.

66. Jonathan Levin & Steven Tadelis, *A Theory of Partnerships* at Abstract (SIEPR Discussion Paper No. 01-36, Oct. 2002), available at http://papers.ssrn.com/paper.taf?abstract_id=311159.

67. See *infra* sections on the modern management structures and techniques pioneered by American railroads.

"[I]f market monitoring is sufficiently reliable, corporations perform better than partnerships, while if market monitoring is weak, partnerships are strictly more profitable than corporations."⁶⁸

As a result, partnerships, while a natural form of business and one easily adopted, had significant drawbacks related to fragility, hold-ups, and unlimited liability. Large businesses were difficult to construct as a partnership due to liability, monitoring concerns, and the need for capital and liquidity. The hold-up problem and the difficulties entailed in liquidating partnership interests thus depressed the value of partnership investments. This devaluation limited partnership credit, growth, and the size of the business enterprise. The modern business corporation solved many of the problems inherent in partnership enterprises and gave rise to the creation of enormous businesses when investors were able to surrender their need for control, monitoring, ownership, and other partnership attributes and were willing to trust the capital markets for their investment security.

The history of the Corliss steam engine is instructive of how the newly-fashioned corporate form frustrated hold-up. While first organized as a partnership in 1847, the venture was reorganized as a corporation in 1857. George Corliss and Nightingale, an investor, owned the bulk of the stock. When Corliss sought to have the firm issue more stock to his brother (thereby giving George effective control of the company), Nightingale refused to reduce his holdings and blocked other efforts that would have rendered him a minority owner. Had the company been a partnership, George could have dissolved the venture quite easily. As it was, George ultimately prevailed because he retained personal control of the patents.⁶⁹ Nevertheless, the Corliss tale demonstrates that corporate investors have greater protection against hold-ups and helps to explain why corporations became such an important institution.

VI. BUSINESS CORPORATIONS BEFORE THE ADVENT OF RAILROADS

"The business corporation was the unique creation of American lawmakers during the late eighteenth and early nineteenth centuries, made by state legislatures that chartered corporations, the state courts that created a body of decisional law for their internal governance, and the Supreme Court that defined the institution by establishing its relationship to the states. What these lawmaking institutions discovered was that the corporate form, used in England and the colonies to organize charitable and public institutions, could be refashioned to suit the special

68. Levin & Tadelis, *supra* note 66, at 2.

69. Lamoreaux, *supra* note 6, at 69.

needs of American entrepreneurs. New production technology, especially in textiles, required large capital investment. In a country where the government did not regularly finance production ventures, stock ownership made imminent sense, especially when it was accompanied by centralized management, a key feature of corporate form. Armed with immortality by its charter, unlike the earlier joint-stock companies organized for a single venture, as well as limited liability, provided gradually during this period of legislative enactment, the corporation was an increasingly attractive investment vehicle for entrepreneurs, provided that the investment could be secured against state regulation.”⁷⁰

And *Dartmouth College*⁷¹ did just that! The Supreme Court used the “contract clause” of the Constitution⁷² to protect Dartmouth College from the New Hampshire Republican legislature.⁷³ The Court protected American business corporations from meddlesome and undue interference when it held that corporate charters were *contracts* and not franchises or concessions that could be altered at the caprice of legislators.⁷⁴ To radically simplify the distinction: if the charter is a contract between the incorporators and the state, then the contract clause forbids states from altering the terms of the contract. To do otherwise would frustrate the moral intent of the original parties and cripple the formation of capital. On the other hand, if the charter is a franchise or concession from the state (as was sometimes the practice with the Crown), then the sovereign could, in the exercise of its powers, amend the basic structure as it saw fit, limited only by the constitutional restrictions placed upon legislation and the representatives’ sense of fairness and equity. Under the franchise theory, capital-raising efforts would be shaky indeed!

Dartmouth College confirmed that these artificial creatures could only exist through state charters. “Story’s concurrence . . . permitted

70. R. KENT NEWMYER, *JOHN MARSHALL AND THE HEROIC AGE OF THE SUPREME COURT* 246-247 (2001).

71. 17 U.S. (4 Wheat.) 518 (1819). R. KENT MEWMYER, *SUPREME COURT JUSTICE JOSEPH STORY: A STATESMAN OF THE OLD REPUBLIC* 129-135 (1985).

72. U.S. CONST. art I., § 10, cl. 1.

73. The Jeffersonian opposition to aristocratic privilege is one of the political undercurrents of the legislation that set up the litigation.

74. There was no doubt in Marshall’s mind that the Contract Clause “must be understood as intended to guard against a power of at least doubtful utility, the abuse of which had been extensively felt; and to restrain the legislature in the future from violating the right to property.” [*Dartmouth College*, 17 U.S. at 628.] If any authority for the interpretation was needed, he found it in the history of the states under the Articles of Confederation. The law according to Marshall was that corporate property was identical to private property, that the legal character of the corporation might be inferred from rights belonging to individual stockholders.

NEWMYER, *supra* note 70, at 251.

states to impose explicit regulations in corporate charters.”⁷⁵ Theoretically, a state could reserve the power to make fundamental changes. However, such a reservation seems to be limited by both contract doctrine (illusory contracts) and constitutional notions of due process and equal protection. Hence, *Dartmouth College* served as a substantial restraint upon arbitrary state power directed at business enterprises.⁷⁶

Legislatures regularly attempted to curb the wealth and power of corporations.⁷⁷ However, the need for capital and the shift in public attitude away from suspicion of corporations to enthusiasm led to a relaxation of state regulation in the nineteenth century.⁷⁸ Legislatures removed restrictions or relaxed them to further the interests of emerging large corporations.⁷⁹ Corporations now possessed the power and legal theory to capture even more power and wealth. Yet, the Jeffersonian distrust of commerce remained. The Jacksonian objections to “special privileges” and popular support for industrialization persisted,⁸⁰ as they do to this day. Nevertheless, with the rise of general incorporation laws (1840-1850s), the foundation was laid for the rise of Big Business, which would rely on the vibrant and emerging capital markets. These critical legal developments spanned the first half of the nineteenth century.

Corporations also spurred industrialization and urbanization. In the first half of the nineteenth century, America was largely agricultural; in 1850, 64 percent of workers were in agricultural occupations.⁸¹ Manu-

75. *Id.* at 222. The reservation of powers doctrine permits states to modify the business organization laws to accommodate future, unforeseen needs.

76. For the remainder of the nineteenth century, the college decision was a potent legal and ideological weapon for corporations who sought to defeat regulation and establish the ideological primacy of laissez-faire capitalism. In the process, the business corporation came to be seen as just another enterprising individual, the personification in law of the individual stockholders who composed it. As such, it was made the beneficiary of the Anglo-American legal tradition, which equated property rights with individual liberty. In America, unlike England, the corporation became both the instrument and the chief cultural symbol of economic modernization.

Id. at 247 (citing E. MERRICK DODD, *AMERICAN BUSINESS CORPORATIONS UNTIL 1860; WITH SPECIAL REFERENCE TO MASSACHUSETTS* 11 (1954)).

77. See *Louis K. Liggett Co. v. Lee*, 288 U.S. 517, 548-56 (1933) (Brandeis, J., dissenting in part) (discussing various state restrictions upon corporations).

78. Kelvin H. Dickinson, *Partners in a Corporate Cloak: The Emergence and Legitimacy of the Incorporated Partnership*, 33 AM. U.L. REV. 559, 574 (1984). See also JAMES W. ELY, JR., *RAILROADS & AMERICAN LAW* 18-19 (Prior to the 1840s, special charters were granted by the legislatures for railroads. The enactment of general railroad legislation signaled that free entry was desirable. Henceforth, greater efficiencies prevailed and private ordering and economic competition was the preference) (2001).

79. Dickinson, *supra* note 78.

80. ELY, *supra* note 78, at 16.

81. Nonetheless, manufacturing industries “were probably the most important in the United

facturing was present in small firms. For instance, in 1832, only 106 manufacturers had assets greater than \$100,000.⁸²

In addition, the American rise of the corporation was quite different than England's experience. For example, between 1783-1801, there were 350 business corporations incorporated in the U.S.,⁸³ yet from 1700-1800 in the United Kingdom, only about six business corporations for manufacturing were incorporated, with few in other industries. Handlin states:

Throughout the whole of the eighteenth century England chartered some half-dozen corporations for manufacturing purposes, and hardly more in any other business sphere. Until well into the nineteenth century the corporation was used extensively only in the organization of canal companies. Not until the Companies Act of 1844 did it become common, and full growth awaited the coming of limited liability after 1855 and the enactment of the Consolidated Statute of 1862.⁸⁴

Before the national market was created by the railroad network, many firms conducted their business in the partnership form. The advantages of the corporate form were not as clear as they seem now. Fixed capital for manufacturing ventures was not large. Entrepreneurs could often raise funds from neighbors, friends, and family. Firm earnings were also a good source of capital (with no income tax, partnerships could retain earnings and reinvest, something that is rare in modern life due to the biases of the tax code that encourage partnerships to distribute profits). Corporations could raise more capital due to their advantages of limited liability and continuity of life.⁸⁵ However, technology had not yet reached the point where economies of scale would be obtained through large enterprises. Nor were there national markets to support large businesses. As a result, manufacturers and other businesses confronted shallow capital markets that contained high risk for ventures. Stockholders often participated in the firm to maintain control and ensure a distribution of profits.⁸⁶ Indeed, some corporations may have been limited in their search for capital because the limited liability

States at the time." William C. Kessler, *A Statistical Study of the New York General Incorporation Act of 1811*, 48 J. POL. ECON. 877, 880 (1940).

82. Edward L. Glaeser & Andrei Shleifer, *The Rise of the Regulatory State*, 41 J. ECON. LIT. 401, 413 (2003).

83. Handlin & Handlin, *supra* note 6, at 4.

84. *Id.* at 3.

85. Because corporations were also not subject to any income tax they could retain earnings easily for expansion. The ability to lock in capital was critical. See Blair, *supra* note 5.

86. Naomi R. Lamoreaux, *The Partnership Form of Organization: Its Popularity in Early-Nineteenth-Century Boston*, in COLOSSUS: HOW THE CORPORATION CHANGED AMERICA 51-52 (Jack Beatty ed., 2000) [hereinafter COLOSSUS].

enjoyed by investors took away further sources of collateral.⁸⁷

Without national markets and risky capital pools for their ventures, businesses tended to stay close to home and remained small. Even larger manufacturing enterprises like mills, etc. were dominated by the family firm, even if the firm had several manufacturing sites. The family management was close enough to the workers and subordinate supervisors to effectively run these small enterprises without the need for massive amounts of capital or a large number of investors. Consequently, these businesses continued as family corporations with active management by the family member shareholders. In effect, they conducted business like incorporated partnerships.⁸⁸

VII. THE EVOLUTION TO THE PLUTOCRATIC FORM OF CORPORATE GOVERNANCE⁸⁹

Nineteenth century firms used many forms of management to attract capital and managers. British shareholders were called "members of the firm." These investors relied on the common law rule of one vote per investor to give owners considerable management power. In the United States, and later in Britain and on the Continent, three models developed: the common law model (one vote per investor, regardless of capital); the prudent man (proportionate voting⁹⁰), and plutocratic voting (one vote per share, with the wealthiest investors purportedly dominating the corporation).

The common law model of one adventurer/one vote remained the predominant method of voting in early nineteenth century American corporations.⁹¹ This was usually the default rule so that if there were no

87. *Id.*

88. Traditionally merchants had used the bonds of kinship and friendship to cement far-flung ventures. The formal organization structures characteristic of twentieth-century businesses were then unknown. Before 1860, even the largest of manufacturing corporations had only one or two factories, normally located in single place. Thus the manager of a cotton mill could view his entire establishment in an hour or two and found no need for elaborate systems to supervise subordinates. STEPHEN SALSURY, *THE STATE, THE INVESTOR, AND THE RAILROAD: THE BOSTON & ALBANY, 1825-1867*, at 299 (1967).

89. Many of the ideas in this section are based upon the paper by Colleen Dunlavy (Professor of History, University of Wisconsin-Madison), *Corporate Governance Structures and Their Alternatives*, presented at "The Corporation as a Social and Political Institution," Hagley Museum & Library, Wilmington, Del. (Feb. 12-13, 2000). Professor Dunlavy has researched the structures of early businesses in Europe and America and has published extensively. She has studied their charters, read their resolutions and minute books, and unearthed the progression from common law management to plutocratic governance, which she has viewed, in part, as a struggle between democratic and anti-democratic impulses. (Notes on file with author.)

90. Some authors have referred to Hamilton's scheme as "regressive voting." Sommer, *supra* note 1, at 1041.

91. This is, of course, the partnership default rule and is still the norm in partnerships today. See Uniform Partnership Act § 18(e) (1914) and Uniform Partnership Act § 401(f) (1994). (In

provisions in the charter, investors were considered as members of the company or firm and had one vote regardless of actual capital investment. Thus, it was natural for the capital investor to accept that his investment was equal to that of his neighbor, the service investor. There was also considerable anti-plutocratic sentiment and a cultural and social antipathy to domination by large shareholders and persons of wealth.⁹²

Regardless, investors and large-scale ventures such as banks recognized that the common law model would not necessarily do for many businesses. A form, somewhat between plutocratic regimes and common law equality, was the "prudent mean."⁹³ The prudent mean method involved graduated voting scales⁹⁴ and gave limited, but important, power to large shareholders. The model is found in Alexander Hamilton's Report on the First United States Bank (1790).⁹⁵ The prudent

manager-run limited liability companies, the default is to the common law rule. See Uniform Limited Liability Corporation Act § 404(b)(1) (1995)). It seems natural that new business forms would have borrowed methods of control and organization from existing ones that were practical and had a comfortable feel.

92. Americans were an independent bunch and loathed European power and privilege. Remember that Anti-Federalists feared the centralization of political and economic power. Jacksonians were the heirs of Jefferson and opposed Federalist/Whig institutions such as the National Bank.

93. The prudent mean is alive and well today and can be found in classified stock and boards, as well as investor contracts that give proportional voting and management rights. See *Providence & Worcester Co. v. Baker*, 378 A.2d 121 (Del. 1977) and *Stroh v. Blackhawk Holding Corp.*, 272 N.E.2d 1 (Ill. 1971).

94. Each shareholder is guaranteed at least one vote. Every investor owning at least the minimum base of shares will receive one vote per share. If any investors own shares beyond this level, they will receive additional votes in proportion to their level of ownership. For example, in the *Providence & Worcester* case, the corporation's articles of incorporation provided that "each stockholder shall be entitled to one vote for every share of the common stock of said company owned by him not exceeding fifty shares, and one vote for every twenty shares more than fifty, owned by him; provided, that no stockholder shall be entitled to vote upon more than one fourth part of the whole number of shares issued and outstanding." *Providence & Worcester Co. v. Baker*, 378 A.2d 121, 122 n.2 (Del. 1977).

95. A further consideration in favour of a change is the improper rule, by which the right of voting for Directors is regulated in the plan, upon which the Bank of North America was originally constituted, namely a vote for each share [*plutocratic model* – ed.], and the want of a rule in the last charter; unless the silence of it, on that point, may signify that every Stockholder is to have an equal and a single vote, which would be a rule in a different extreme [*common law model* – ed.] not less erroneous. It is of importance that a rule should be established, on this head, as it is one of those things, which ought not to be left to discretion; and it is consequently, of equal importance, that the rule should be a proper one.

A vote for each share renders a combination, between a few principal Stockholders, to monopolise the power and benefits of the Bank too easy. An equal vote to each Stockholder, however great or small his interest in the institution, allows not that degree of weight to large stockholders, which it is reasonable they should have, and which perhaps their security and that of the bank require. A prudent mean is to be preferred. A conviction of this has produced a bye-law of the corporation of the bank of North America, which evidently aims at such a mean.

mean model was useful in balancing the power of the money against the wealthy and it was used in the charters of both the First and Second United States Banks. Sommer has offered an alternative rationale for the prudent mean: "Although this rationale can be read as providing for community control of the merchants, it reads more logically as providing mercantile control of the directors. In theory, regressive voting would ensure that the respectable merchants would collectively dominate the bank, but would keep individual merchants (or factions) from oppressing the rest."⁹⁶

The common law and prudent mean models persisted until the mid-nineteenth century in America, when the need for massive amounts of capital and liquidity demands favored the plutocratic model.⁹⁷ The push toward the plutocratic model occurred during the first decades of the 1800s. In 1811, the New York incorporation law pertaining to manufactures allowed plutocratic voting.⁹⁸ However, because there was strong opposition to plutocratic voting, constraints were placed on the power of large shareholders. For example, in *Taylor v. Griswold*,⁹⁹ New Jersey upset a plutocratic voting scheme by holding that shareholders of the subject company were only entitled to one vote each, not one vote per share. Nevertheless, pressure persisted for plutocratic voting and in 1841, the New Jersey legislature enacted legislation which overruled *Taylor v. Griswold*.¹⁰⁰ Between 1860 and 1870, general incorporation statutes were the rule, and by 1896, the plutocratic norm was firmly established.¹⁰¹ Other states followed New Jersey's example for statutory plutocratic voting. Delaware's first modern corporate statute in 1899 was nearly a verbatim copy of the New Jersey act. Delaware General

Report on a National Bank, *supra* note 27, at 598.

96. Sommer, *supra* note 1, at 1042.

97. As the national economy grew, America needed huge amounts of capital to build its railroads and mills, finance the Civil War, and complete the settlement of North America. Interest rates in American capital markets were higher than in Europe, indicating both the greater risk of the ventures and the insatiable demand for capital. This resulted in equity investors demanding greater control. To create a fluid capital market, management structures shifted from the common law control model to plutocratic governance.

98. Act of 22 Mar. 1811, 3 N.Y. Stat. 726 (1863).

99. 14 N.J.L. 222, 237-238 (N.J. 1834).

100. 1841 N.J. Laws, 65th sess., 2 sit. 116. Prior to this legislation, New Jersey legislators established the rules for the number of votes each shareholder was entitled to at the time the state granted the charter. The default position was the common law rule, which was opposed by most large investors. However, the most prevalent formula was one vote per shareowner. The 1841 legislation changed the default rule to the plutocratic form. JOHN W. CADMAN, JR., *THE CORPORATION IN NEW JERSEY: BUSINESS AND POLITICS 1791-1875*, at 307-08 (1949).

101. New Jersey's General Enabling Act (1896) was the prototype for modern enabling laws. 1896 N.J. Laws 185, §§ 36, 289, amended by 1926 N.J. Laws 318, §§ 11, 539 and 1929 N.J. Laws 335, §§ 2, 757 (presently codified at N.J. Stat. Ann. §§ 14A:5-10 (West 2000)).

Corporation Law was instrumental in becoming the most influential source of corporate law in the country.

This movement toward plutocratic voting reflected the tension between democratic rights and the need to attract capital from large investors. As businesses progressed from family and entrepreneurial capitalism to shareholder capitalism, the plutocratic form became necessary.¹⁰²

VIII. RAILROADS MANDATE THE PLUTOCRATIC MODEL

While the railroads' insatiable need of capital dictated the plutocratic model, dispersed shareholding was in evidence before railroads were in ascendancy. The Boston Manufacturing Company of 1813 was the first important enterprise to be organized along plutocratic lines with the modern separation of ownership from management. Although quite small by modern standards, it had the characteristics of late corporate giants. In 1830, no one held more than eight and one-half percent of the stock. By 1850, there were 123 shareholders, the largest owning eight and one-half percent. Management as a group only held 11 percent.¹⁰³

American railroads demanded massive amounts of capital and new financing methods were required to build them. While construction was cheaper than canals, their vast size and scope was beyond the funding resources of families and individuals.¹⁰⁴

Canals, and later the railroads, conquered the distances of the continent.¹⁰⁵ That conquest fueled America's industrial revolution and unleashed demands for goods, services, and speed.¹⁰⁶ With their expansive networks, the management of railroads mandated a departure from the common law and prudent mean models. The railroads, by linking the urban areas to the hinterlands and knitting regions together, drastically reduced transportation costs, which in turn led to the growth of large urban areas and gigantic industries to provide for America's burgeoning population.

The histories of the Boston & Albany Railroad, circa 1825-1867, and the Erie Railroad demonstrate how the movement toward plutocratic

102. For more on the relationship between the plutocratic corporation and capital market liquidity, see Christian C. Day, *Investor Power & Liquidity: Corporations, Capital Markets and the Industrialization of America*, 5 J. SMALL & EMERGING BUS. L. 345 (2001).

103. BERLE & MEANS, *supra* note 4, at 10-11.

104. See JOHN STEELE GORDON, *THE GREAT GAME: THE EMERGENCE OF WALL STREET AS A WORLD POWER, 1653-2000*, at 76 (1999).

105. See Jack Beatty, *Toward Scale and Scope*, in COLOSSUS, *supra* note 86, at 63.

106. Railroads had a profound influence on all aspects of American law and culture. See ELY, *supra* note 78.

control was a result of the immense capital needs of the projects, as well as the need for sophisticated management that could effectively monitor outputs over vast distances. The management revolution that resulted in the modern, hierarchical organization transformed American business and fit exactly within the confines of centralized management, directed by elected boards of directors, who remained responsible to atomistic shareholders through fiduciary duties. First, the Boston & Albany.¹⁰⁷

A. *The Boston & Albany*

Prior to the Boston & Worcester¹⁰⁸ charter, major public improvements, such as the Erie Canal, the Pennsylvania system of internal improvements, and the Ohio canals, were publicly-financed enterprises. Even the Baltimore & Ohio Railroad Company had substantial government backing.¹⁰⁹ The American Revolution had disrupted trading patterns. Americans no longer clung to the seaboard. Port cities like New York, Boston, Philadelphia, and Baltimore sought to maintain their commercial importance with links to the developing hinterlands. New York State built the Erie Canal; Baltimore, the B&O in 1827; Philadelphia, canal improvements to Pittsburgh by 1834.¹¹⁰ With the completion of the Erie Canal, New York State's population doubled from one million to two million people (1810-1830).¹¹¹ Internal improvements were the crucial nineteenth century network that connected regions and developed the national economy.¹¹²

The Boston & Albany was representative of the switch from predominately public financing for internal improvements to major reliance on private capital.¹¹³ This movement to private financing created greater diversification in the capital markets (by offering private securities to complement government bonds) and quickly led to the separation of ownership from management in the great corporations, like the railroads.

The Boston & Albany was created to funnel agricultural goods from the west to Boston and preserve its position as a major commercial center and port. When it was finished in 1842, it had a total capitaliza-

107. The railroads comprising the Boston & Albany will be referred to as the Boston & Albany, the B&A, the Boston & Worcester, and the Western Road (the latter two were the predecessors of the Boston & Albany rail network).

108. The Boston & Worcester was a component of the Boston & Albany.

109. ELY, *supra* note 78.

110. *Id.* at 1.

111. SALSURY, *supra* note 88, at 2.

112. *Id.*

113. *Id.* at 80.

tion of \$9 million (two-thirds provided by the government).¹¹⁴ State support was necessitated because of the Panic of 1837, a national crisis that crippled credit. While Massachusetts' private capital for the venture was substantial, it was the political power of that private capital that convinced the government to back the project. The B&A proved to be a very good investment; it paid six percent returns within three years of completion.¹¹⁵

As the B&A was constructed, there was an ongoing debate about the public nature of railroads, which were seen as corporations imbued with a public purpose. There was also grave uncertainty. After *Charles River Bridge*¹¹⁶ limited the monopoly granted a toll bridge, many investors declined to invest in transportation ventures fearing the loss of their capital. Still, western Massachusetts clamored for an extension of the Boston & Worcester, while simultaneously opposing increased taxation and pushing for private investment. Ultimately, railroad fever caused the investing public to put aside their fear of monopolies and commercial power.¹¹⁷

To continue construction to the west, the Boston & Worcester issued 10,000 shares at \$100 par to bring in small investors.¹¹⁸ Prior to this issue, previous large projects like the Lowell and Springfield mills sold shares at \$1000 par (a substantial amount that limited investments to the very wealthy and made them illiquid). These earlier industrial projects were also governed by the prudent mean.¹¹⁹

The B&A's construction broke away from that mold. B&A shares were sold in subscriptions of \$10 and \$20 installments to small investors. The company's charter required annual reports to the General Court and committees of the legislature to protect the public. To further promote construction, promoters sold shares for as little as \$1 down for the first assessment, with subsequent assessments in installments of \$20 or \$30.¹²⁰ Thus, the B&A sought a very broad base of investors, which resulted in widely dispersed holdings. B&A shares were soon dispersed afar as a primitive secondary market developed. By 1835, New Yorkers controlled 45% of all shares on the New York Stock Exchange.¹²¹ The promoters developed a rate structure that met the investors' needs. The

114. *Id.* at 32.

115. *Id.*

116. *Charles River Bridge v. Warren Bridge*, 36 U.S. 420 (1837).

117. SALSURY, *supra* note 88, at 81.

118. *Id.* at 81-82.

119. *Id.*

120. *Id.*

121. *Id.* at 96.

annual dividend was six percent.¹²² By 1837, the road had already paid two dividends of eight percent.¹²³ The road was a stunning success.

Railroad construction continued unabated. The Western Road was financed with a subscription of 2,800 shares. While there was wide-scale distribution, many held less than ten shares; yet, 100 investors owned 40% of the stock. The Boston industrial community subscribed heavily and purchased a \$5 million assessment. This permitted the redemption of state financing scrip.¹²⁴ Contemporaneously, promoters appealed to foreign capital (mainly British). However, the state remained involved in this mixed enterprise. The Commonwealth was used to market loans. Private loans in 1838 required 8% to 12% interest. With Massachusetts' backing, the rate dropped to five percent.¹²⁵ A sinking fund was established to retire the debt and the British merchant bankers Baring Brothers invested \$1,890,000 from 1838-1839.¹²⁶ Barings sold part of their investment to subscribers (\$1.2 million at three and one-quarter percent above par).¹²⁷ By 1842, the Western Railroad was capitalized as \$3 million in stock (\$1 million owned by the state) and \$5 million in bonds (\$4 million by the state and \$1 million by the City of Albany). The Boston & Worcester was all stock, privately-held, comprising \$2,700,000.¹²⁸ Thus, as a corporation imbued with a public purpose, the B&A was successfully financed with a mixture of private and public capital.

These railroads radically increased the wealth of the communities they connected. This in turn increased the frenzy of railroad fever and promotion. Nonetheless, railroads were good investments. In 1841-1843, to finance extensive capital improvements, the B&W sold \$700,000 worth of stock. Much of the stock was sold above par to investors demanding the stock. The railroad's stock had moved from a speculative investment to a Blue Chip in a ten year period.¹²⁹ The Western was a great undertaking, greater than other industrial enterprises (save railroads in the 1850s).

By 1842, its 160 miles of main line had absorbed more than \$7,000,000, and by 1854, its capital was \$10 million. By contrast even the Erie Canal, which was more than 360 miles long, cost only \$7 million; and only the biggest industrial concerns had as much cap-

122. *Id.* at 125.

123. *Id.* at 132.

124. *Id.* at 140-43.

125. *Id.* at 147.

126. *Id.*

127. *Id.* at 148-49.

128. *Id.* at 155.

129. *Id.* at 215.

ital as \$500,000. Even in 1850 in textiles, the most advanced segment of industry, only forty-one factories had a capitalization of \$250,000 or more.¹³⁰

The Boston & Worcester became a major railroad that spurred the economy of Massachusetts and the region. It met its capital needs by relying on a creative mixture of private and public finance. The venture was so successful that it attracted investors in New England, New York, and Europe within a short period of time.

The B&A's growth also required new management structures that supported the widely-dispersed owners and far-flung managers. The directors, president, and chief engineers created a multi-divisional authority to run the railroad. This new-fangled management structure substituted bureaucracy for friendship and kinship. Formal lines of authority were created, as well as elaborate reporting systems that enabled top managers to make efficient and accurate decisions. The informal management practices of the partnership and family-owned businesses had given way to a more scientific, bureaucratic structure that would benefit from the new system of monitoring and controls.¹³¹ The rise of this management model is detailed in the next section where the Erie Railroad's contributions are reviewed.

B. *The Erie Railroad and Modern Management*

The Erie Railroad's revolutionary bureaucratic management structure set a precedent for the other railroads. The divisional model paved the way for other great industrial corporations. This shift from hands-on, owner management of industrial enterprise to administration by professional managers supports the shift from the common law model of management to the plutocratic model. The professional managers provided governance and controls that were beyond the ken of the typical, entrepreneur-owned industrial corporation in the mid-1800s. Professional management, informed by agency law and fiduciary duties, was a vital proxy for the remote, dispersed shareholder-owners.

As illustrated above, before the advent of railroads, even corporate industrial concerns were modeled after partnerships. There was a limited need for capital and owner management provided some protections for agency problems. Personal networks of kinship and friendship usually managed these commercial enterprises¹³² and provided the necessary amounts of credit. Most critical was the question of whether or not

130. *Id.* at 299, citing EVELYN H. KNOWLTON, PEPPERILL'S PROGRESS: HISTORY OF A COTTON TEXTILE COMPANY, 1844-1945 (1948), at 132.

131. *Id.*

132. RICHARD S. TEDLOW, THE RISE OF THE AMERICAN BUSINESS CORPORATION 8-9 (1991).

a particular person could be trusted. By the 1840s and 1850s, industrialization and commercialization were proceeding apace and railroads were the reason. Railroad construction and operations were the foundation. The corporate form was essential for its success:

While the first industrial revolution produced a number of incorporated factories, canals, turnpikes, and banks, many of these enterprises could have been, and often were, conducted successfully as partnerships or proprietorships. By contrast, during the second industrial revolution, the corporate form proved to be absolutely essential. It was a very useful way to aggregate the unprecedented amount of money required to construct large scale railroads, factories, mills, refineries, and pipelines, and was also an extremely effective device for administering the affairs of these enterprises. From a primarily legal construct, with quasi-public functions, the corporation now evolved into and inward-looking, private, and very complex organizational hierarchy — a *managerial* revolution within the private sector.¹³³

Railroads were the first great modern businesses. To manage them properly and to raise the capital needed for their enterprise, complex organizations were created. These enterprises consumed vast amounts of money. By 1859, private railroad securities amounted to \$1.1 billion. In contrast, canals built from 1815-1860 cost about \$188 million and about two-thirds of the investment was public. By 1850, railroad securities offered investors in the public markets a degree of security. Railroad finance fueled the volume growth of the exchanges.

The Erie Railroad led the way and spearheaded the managerial revolution. While traditional family businesses, including industrial ones, could rely on history and personal relations for management, railroads had large territories that could only be managed by a complex management structure. By 1855, the Erie was the third largest road in the United States with operating expenses three times that of the Western. Daniel McCallum, the Erie's very able superintendent, realized that supervision and management of the road would have to be restructured from the traditional model of hands-on knowledge by the manager or superintendent.

McCallum's operating principles constitute the oldest detailed description of how large corporations must be organized:

1. A proper division of responsibilities.
2. Sufficient power conferred to enable the same to be fully carried out, that such responsibilities may be real in their character.

133. *Id.* at 13 n.40 (quoting Thomas K. McCraw, *The Evolution of the Corporation in the United States*, in *THE BUSINESS CORPORATION: AN INSTITUTION IN TRANSITION* 6-7 (John R. Meyer & James M. Gustafson eds., 1988)).

3. The means of knowing whether such responsibilities are faithfully executed.
4. Great promptness i[s] the report of all derelictions of duty, that evils may be at once corrected.
5. Such information [is] to be obtained through a system of daily reports and checks that will not embarrass principal officers, nor lessen their influence with their subordinates.
6. The adoption of a system, as a whole, which will not only enable the general superintendent to detect errors immediately, but will also point out the delinquent.¹³⁴

To implement his principles, McCallum created the prototypical division structure: an organization of four divisions (superintendents) and two branches. These division and branch line superintendents reported to the general superintendent, who in turn reported to the company's president. Superintendents were responsible for the operations and maintenance of their divisions and branches. The Erie management structure revolutionized the railroad business by standardizing procedures and policies. The division heads functioned as subordinate CEOs. As a result, the superintendents could give their attention to problems and bring their personal knowledge to the tasks at hand while resolving issues in accord with Erie's policies and program.

The Erie model proved to be so successful that it was copied by other large industries such as iron and steel, the telegraph, and the like. The divisional management structure was a creative method of solving the monitoring problem once businesses reached the size of railroads and steel mills. This solution permitted corporations to grow to gigantic size because management and control could now be professionalized. This professionalism by management proxy spurred the separation of ownership from control in the large, publicly-held companies. The next section shows how the operations of the capital markets monitored the public companies while providing a solution to the partnership and small business hold-up problem that vexed businesses.

IX. THE CAPITAL MARKETS ADDRESS THE HOLD-UP AND MONITORING PROBLEMS OF BUSINESSES

It seems almost counterintuitive that large capital markets can provide dispersed investors with a sufficient measure of security to overcome the hold-up problem and monitoring concerns, but they did in the nineteenth century and the success in resolving these issues was followed by massive investment in the United States, tremendous growth of businesses and capital stock, and an increase in the nation's wealth.

134. *Id.* at 17.

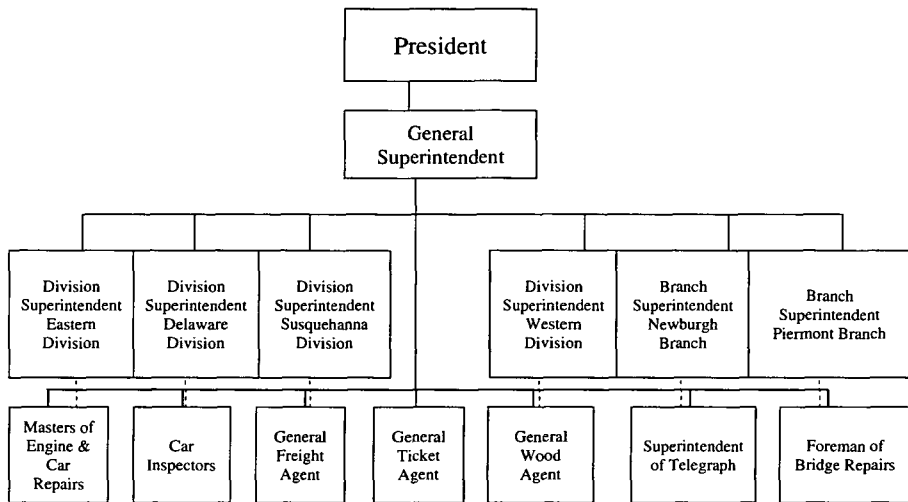


EXHIBIT 1

Erie Organization Chart Prepared by Daniel C. McCallum

Source: RICHARD S. TEDLOW, CASE COMMENTARY AND TEACHING TECHNIQUE TO ACCOMPANY THE COMING OF MANAGERIAL CAPITALISM 82 (1985).

Financial institutions were a key to this transformational growth. Foreign capital became important in the 1830s. By 1853, approximately \$222 million was due to foreign capital investments (19% of American securities).¹³⁵ By 1856, the Secretary of the Treasury estimated that foreign investment in railroads amounted to \$83 million.¹³⁶ After 1850,¹³⁷ railroads were:

“able to raise substantial sums in the European market,” and the bulk of foreign investment came after the Civil War. To raise large sums of capital, which reached millions of dollars per enterprise, railroad promoters . . . turned mainly to . . . merchant-capitalists (in the United States), who were often to be found among the ranks of their own stockholders. The companies relied on these private capitalists to help them in placing railroad stocks and bonds, which . . . were the first industrial securities to be offered publicly in large volume. Indeed, they were virtually the only ones until the last decades of the nineteenth century: . . . in the United States, it was only in the 1890s that manufacturers turned to the stock exchange for outside funds.¹³⁸

135. JEAN STROUSE, MORGAN: AMERICAN FINANCIER 71 (1999).

136. *Id.*

137. In the 1850s, railroad investments totaled 6.8 percent of domestic capital stock; by 1860, they totaled 12.7 percent. COLLEEN A. DUNLAVY, POLITICS AND INDUSTRIALIZATION: EARLY RAILROADS IN THE UNITED STATES AND PRUSSIA 35 (1994).

138. *Id.* at 34-35.

The rise of national banks and a financial system that exported capital to regions and industries that used it wisely aided development. The transfer of funds from the capital-rich East to the West contributed to the growth of modern America. Railroads bound the nation together and spurred the growth of great metropolises such as New York and Chicago. The urbanization of great cities further accelerated economic growth and wealth creation as they supported specialization of work.¹³⁹ The capital transfer helped to meet the demand for tools, housing, communication works, and other infrastructure needs.¹⁴⁰

There was indeed every inducement to accumulate capital, yet had it not been for the development of financial institutions whose function it was to mediate between saving and investment, capital accumulation would have been much more modest. It is true that surpluses of capital existed in the maturer economies of Western Europe, where returns were less attractive than in areas of capital deficit such as the developing American economy. In consequence, net capital flows into the United States, set in motion primarily by English investors, amounted to \$1.5 billion between 1870 and 1895. Most of the investments went into municipal and other local bonds and into railroads and public utilities, although a few manufacturing firms were among the beneficiaries. Domestic savings substantially outstripped foreign investment.¹⁴¹

From the 1830s to the 1850s, America experienced a tremendous increase in capital. Wall Street eclipsed the capital markets of Philadelphia and Boston after the late 1840s. In the 1830s, the week's trading volume high in New York was approximately 1,000 shares. By 1850, the weekly high reached over one million trades.¹⁴² Also inhabiting the Street were intermediary institutions known as investment banks or merchant banks that raised debt and equity capital for businesses.¹⁴³ These were the companies that specialized in railroad stocks.¹⁴⁴

Furthermore, the bond market was integral to railroad construction. Railroads were risky enterprises and their stock was subject to wild swings and speculation. Hence, savvy investors wanted the security of bonds (which, of course, had priority over equity).¹⁴⁵ Thus, if the railroad failed, bondholders could take control of the bankrupt company,

139. For a good history of this rail-driven urban growth, see SARAH H. GORDON, *PASSAGE TO UNION: HOW THE RAILROADS TRANSFORMED AMERICAN LIFE, 1829-1929*, at 267-301 (1990).

140. BRUCHEY, *supra* note 16, at 312.

141. *Id.*

142. STROUSE, *supra* note 135, at 66.

143. Investment banks are instrumental in marketing new public firms and supporting existing businesses by supplying them with capital they have raised.

144. STROUSE, *supra* note 135, at 66.

145. *Id.* at 133.

reorganize it, and protect their capital. Bonds were especially important for foreign investors, who could not stomach the gyrations of the market. They also needed to be in a position where they could have American representatives communicate their interests as an investor class in the reorganization.

Railroads had an insatiable need for funds. While the average textile mill (a large business for its day) seldom cost more than \$1 million, railroads were much more expensive ventures. The Erie, Pennsylvania, New York Central, and B&O were each capitalized at between \$17 million and \$35 million.¹⁴⁶ By the 1860s, railroads were America's largest businesses.¹⁴⁷ The Pennsylvania Railroad was the largest corporation in the world with 3,500 miles of track and \$61 million in capital invested.¹⁴⁸ Capital investment in railroad securities stood at \$1.1 billion in 1859.¹⁴⁹

Capital in American railroads continued to rise. It increased from \$2.5 billion in 1870 to \$10 billion in 1890.¹⁵⁰ Seventy-five thousand miles of track, greater than any previous decade (or for that matter, any other place on earth), were laid in the 1880s.¹⁵¹ Railroads had become reliant on investment banking firms to obtain and invest the funds they needed for their vast enterprises. Thousands of widely dispersed stock and bondholders entrusted their funds and savings to the investment banks that brokered the deals between the capital pools and the giant railroads.¹⁵²

Railroads now dominated the landscape. While few firms in 1889 reached the ten million dollar range, the ten largest railroads had over \$100 million in capital each. The 1890 census put the capital invested in rails at \$6.5 billion.¹⁵³ Again, rails proved to be good investments. The average industrial firm (perceived as a riskier investment) traded at three times its earnings. Railroads were the Blue Chips and they traded at seven to ten times earnings.¹⁵⁴ Their securities justified those heady val-

146. *Id.* at 131.

147. GORDON, *supra* note 104, at 87. Railroad stocks were also good for Wall Street. By 1856, there were 360 railroad stocks traded, 985 bank stocks, hundreds of corporate stocks and municipals, as well as 75 insurance stocks. *Id.* The variety of investments permitted diversification and increased liquidity and safety, ultimately lowering the cost of capital. *See generally* Day, *supra* note 102.

148. STROUSE, *supra* note 135, at 131.

149. *Id.* This total is exclusive of land grants and state loans.

150. *Id.* at 195.

151. *Id.*

152. *Id.* These investors looked to the Morgans and Schiffs to monitor and protect their investments. Foreign capital continued in its importance, with foreign investment rising from \$375 million in 1876 to \$1.5 billion in 1883. *Id.* at 243.

153. *Id.* at 310.

154. *Id.*

ues as they offered safety in greater liquidity and lower risk.¹⁵⁵

To handle and mediate transactions of this scale, new financial devices were needed.¹⁵⁶ Wall Street responded by creating mutual savings banks, mortgage companies, building and loan associations, life insurance companies, and other firms that were able to funnel surplus funds into long-term capital investments.¹⁵⁷ American industry was on the rise. "Industrials" became the dominant stocks on Wall Street by 1900 and the United States, which had imported most of its steel as recently as 1860, was now producing more steel than all of Europe.¹⁵⁸

These developments would not have been as successful or extensive if Wall Street had not managed to develop large corporations with effective monitoring to curb the hold-up problems facing businesses and investors. The corporations had the necessary capital to integrate operations by acquiring suppliers or competitors. Before the advent of Big Business, family owned concerns and other small industrial or commercial ventures often failed or were thwarted because they lacked the capital to buyout difficult investors or to deal with other businesses that were holding them up. With capital that became available to large businesses, they were in a position to buy out difficult investors and to acquire businesses such as suppliers and distributors. Such acquisitions would stimulate even more growth and capital creation. The capital markets came to the rescue by providing the funds that permitted the creation of the large railroads, steel mills, refineries and the like because these plutocratic corporations enjoyed the resources to make the required acquisitions.

Wall Street also helped to solve the hold-up problem for individual investors by providing monitoring through the exchanges and investment banking networks.

This constantly increasing demand for capital and the reliance on foreign investors in turn produced two basic innovations that appeared in late nineteenth century America in order to maximize the reputational capital underlying major stock issuances: (1) a corporate governance system in which investment bankers, originally protect-

155. There is a general relationship between price/earnings ratios and security: the safer the equity investment, the higher the ratio for the industrial stock. This is because investors are purchasing earnings, liquidity, and reasonable growth — a relatively safe and precious commodity and much in demand; hence, the high prices.

156. Cf. Douglas A. Irwin, *Tariffs and Growth in Late Nineteenth Century America*, 24 *WORLD ECONOMY* 15 (2001). "[G]rowth [in the late nineteenth century] was driven largely by labour force expansion and capital accumulation, while productivity growth was undistinguished when put in a comparative perspective." *Id.* at 16. Without the transportation network that rails afforded, commercial and industrial growth would have been severely stunted.

157. BRUCHEY, *supra* note 16, at 313.

158. GORDON, *supra* note 104, at 148.

ing foreign investors, took seats on the issuer's board both to monitor management and to protect public investors from predatory raiders seeking to acquire control by stealth; and (2) the growth of self-regulation through stock exchange rules.¹⁵⁹

X. THE ROLE OF INVESTMENT BANKERS

The main role of investment bankers in the second half of the nineteenth century was the recruitment of foreign capital, with banks "primarily engaged in the marketing of debt securities,"¹⁶⁰ but eventually expanding into equity securities. Railroads unified the nation into a continental common market. The volume of traffic increased throughout the century, pushing railroad rates down even further and moving even greater commerce. Railroads were a volume business. Of all the burgeoning American industries, railroads profited from economies of scale. They required high maintenance and high capital costs.¹⁶¹ The tremendous financial needs of the railroads mandated public equity markets.

Few protections existed for minority shareholders in railroad corporations. "Not only did control groups quickly form, but in some cases the objective of these blockholders was primarily to manipulate the stock price of their corporation."¹⁶² Professor Coffee cites the example of the battle for control of the Erie Railroad — the "Scarlet Lady of Wall Street."¹⁶³

The Erie Railway Wars were emblematic of the legal, moral, and financial chaos of the times and in the markets. The battle for control of the Albany and Susquehanna (a road linking Binghamton to the Albany gateway to New England) at the annual board of directors' election featured Cornelius Vanderbilt and his allies against Jay Gould, Jim Fisk, and their associates. A young J. P. Morgan advised the New York Cen-

159. John C. Coffee, Jr., *The Rise of Dispersed Ownership: The Roles of Law and the State in the Separation of Ownership and Control*, 111 YALE L.J. 1, 26 (2001).

160. *Id.* at 27.

161. JOHN STEELE GORDON, *THE SCARLET WOMAN OF WALL STREET: JAY GOULD, JIM FISK, CORNELIUS VANDERBILT, THE ERIE RAILWAY WARS, AND THE BIRTH OF WALL STREET* 124 (1988).

162. Coffee, *supra* note 159, at 27.

163. *Id.* at 27-28. For other sources, see Jay Gould's contemporary, CHARLES FRANCIS ADAMS, JR., *CHAPTERS OF ERIE* (1871); see also GORDON, *supra* note 161 (This is a lively history of the battle for control of the Erie. Commodore Vanderbilt, the dominant shareholder of the New York Central System, attempted to gain control of the Erie in order to protect his trunk line.), and MAURY KLEIN, *THE LIFE AND LEGEND OF JAY GOULD* 77-98 (1986) (sympathetic, revisionist biography of the great nineteenth century robber baron Jay Gould). While Jay Gould was generally thought of as a villain by most, his control of the Erie was salubrious, however. Before Gould, the physical plant was run-down and the debt was staggering. Gould's astute management rendered the Erie a much stronger property. KLEIN at 88-102, 115-16, 119-21.

tral faction (Vanderbilt's forces).¹⁶⁴ The meeting was attended by shareholders, lawyers, employees, proxy holders, process servers, and thugs. The company treasurer was arrested for stealing the subscription books. After papers were served and two separate elections held, each with a different victor, the battle moved to the courts. Morgan had the case tried in the friendly confines of Delhi, N.Y., not Albany or New York City, and the trial judge ruled in his favor on all counts. The Court of Appeals, however, reversed the decision in its entirety, except on the critical issue of who had won the election.¹⁶⁵ Grievous harm had been done. Jeremiah Black, a former Attorney General of the United States, wrote:

A moment's attention to this will . . . show that the confusion, misapprehension, and total failure of justice which took place in these cases, while they could not possibly have happened in any other country, could scarcely have been avoided in New York . . . all par-

164. This may have convinced Pierpont Morgan that internecine warfare like the Erie brawl was "no way to run a railroad." "The Morgans [father and son] hated this kind of warfare, which played havoc with national financial markets and left their client-investors holding worthless paper. Hoping to transform railroad securities from high-risk speculations into stable, long-term investments, they and a few other bankers . . . attempted to discipline the industry. The fact that railroads continually needed huge infusions of capital put the bankers in a powerful position." STROUSE, *supra* note 135, at 134. Pierpont "saw himself as a proxy for honorable European and American investors, a tool of transcendent purpose representing the sound men on Wall Street and in the City." RON CHEROW, *THE HOUSE OF MORGAN: AN AMERICAN BANKING DYNASTY AND THE RISE OF MODERN FINANCE* 30 (1990). See also *id.* at 44, 45.

Pierpont spent much of his life trying to consolidate railroads, regularize rates, and manage ruinous competition. STROUSE, *supra* note 135, at 198 (The heads of the Wabash, New York Central, and Erie in 1880 met "'with a view of making permanent running arrangements' — that is, agreeing to divide up traffic rather than wage war." [The Wabash and Erie were Gould roads!]) Morgan's quest to rationalize and consolidate the trunk lines was quashed in *Northern Securities Co. v. United States*, 193 U.S. 197 (1904) (Sherman Antitrust Act applied to stock ownership. Northern Securities Company, holding the stock of three major railroads, was dissolved.).

The Erie Wars were costly; they gave all participants a black eye. Finally, they helped to fix the rapacious image of robber barons in the public's eye.

165. The Susquehanna War litigation was both complex and protracted. In *People v. Albany & Susquehanna Railroad Co.*, 7 Abb. Pr. (N.S.) 265, 38 How. Pr. 228, 1 Lans. 308, 55 Barb. 344 (N.Y. Sup. Ct. 1869) Smith, J. sustained the election of the Ramsey board (Vanderbilt/Morgan-backed) and disallowed the election of the Church board (Fisk/Gould-backed) on the grounds of fraud. The Fisk directors appealed Judge Smith's decision. The General Term of the Supreme Court sustained the Ramsey Board election and vacated much of the Smith decision on technical grounds dealing with the right to a jury trial and costs. *People v. Albany & Susquehanna R.R. Co.*, 5 Lans. 25 (N.Y. Gen. Term 1871). Resort by all parties was had to the Court of Appeals which eventually sustained the Smith finding of fraudulent conduct by the Fisk/Gould faction. *People v. Albany & Susquehanna R.R. Co.*, 57 N.Y. 161 (1874). The Susquehanna Wars litigation had come to an end, almost as an anticlimax.

The defeat of Fisk and Gould in the 1869 Supreme Court litigation left the Ramsey board in control. In February in 1870 it leased the railroad to the Hudson & Delaware Canal company (the predecessor to the Delaware & Hudson Railroad), ending the ability of the Erie to mount a challenge at the New York Central's Albany gateway. CHARLES FRANCIS ADAMS, JR., *supra* note 163, at 190.

ties were fighting under the ensign of public authority. It was judicial power subverting order and breaking the peace; it was law on a rampage; it was justice bedeviled; in one word, it was the New York Code in full operation.¹⁶⁶

Harper's Weekly intoned on point that the judiciary must be reformed: "If scenes of anarchy are to be avoided, if New York is to retain its preeminence as the commercial metropolis of the country, if foreign capital is to be retained here, something must be done to prevent, in the future, the unseemly abuses of power into which certain of our state judges have been betrayed in the past."¹⁶⁷

Thuggery did not end with the Susquehanna War. Consider the plight of foreign investors with the audacity to entertain lawsuits in New York to enforce their rights. English shareholders, who owned 450,000 of the 780,000 shares issued and outstanding (and hence, control of the company in a society ruled by law), were purposely prevented from voting for their slate of directors in the 1870 board election. Gould's forces won by a landslide vote of 304,938 to 3,000.¹⁶⁸ The English shareholders then went to *both* state and federal court to overturn the fraudulent election. In July 1871, a year after they began their odyssey, the investors obtained a federal district court judgment in their favor.¹⁶⁹ However, they had to wait until December 1871, after yet another fraudulent election, before Gould would finally be compelled to turn over the stock to them. This battle cost the investors \$25,000 and the loss of control for well over a year. Foreign investors also turned to the corrupt legisla-

166. GORDON, *supra* note 161, at 252 n.23 (citing Jeremiah S. Black, untitled article, *GALAXY MAGAZINE*, Mar. 1872).

167. *Id.* at 252-53 n.24 (citing *HARPER'S WEEKLY*, Feb. 12, 1870).

168. *Id.* at 299-300. At the time, Gould and his allies controlled the Erie. They accepted the money from the English investors, but never officially transferred the stock on the company's books to the investors or their representatives, leaving them without the right to vote in the election.

169. There are four federal cases in this critical litigation to vindicate the rights of English shareholders. The key case, *Erie Railway Co. v. Heath*, 8 F. Cas. 762 (C.C.S.D.N.Y. 1871), was decided in July 1871 and ordered Gould's agents to register the stock certificates in the names of their English owners, giving them the franchise. *Erie Railway Co. v. Heath*, 8 F. Cas. 761 (C.C.S.D.N.Y. 1871) was a mandamus action ordering Gould's agents to produce the stock transfer book and other corporate records. *Erie Railway Co. v. Heath*, 8 F. Cas. 763 (C.C.S.D.N.Y. 1871) denied the petition of Gould's agents for control of unregistered stock certificates. Finally, *Erie Railway Co. v. Heath*, 8 F. Cas. 766 (C.C.S.D.N.Y. 1871) ordered payment to the master for supervising recording of stock certificates in the names of their rightful owners.

ture,¹⁷⁰ which refused to repeal the Classification Act,¹⁷¹ ostensibly because of the threat of foreign ownership.¹⁷² Such shenanigans surely depressed stock prices, harmed all investors, and raised the cost of capital.

In the absence of any federal regulations, different laws and judicial rulings from separate states often came into conflict with one another, “but the real point is that investors were vulnerable less because of the substantive inadequacy of American corporate law itself than because of the lack of enforcement mechanisms and the prospect of corruption.”¹⁷³ Thus, in the nineteenth century, it was very difficult for investors to enforce their contract rights through litigation (or even lobbying for regulation).¹⁷⁴ The transaction costs of a Londoner or San Franciscan litigating in New York or Boston were steep. There was also a substantial “home court advantage.” With no federal regulation of the capital markets and difficult to enforce substantive rights, another monitoring device was required to attract capital and bring confidence to investors.

In such a chaotic legal environment filled with corruption, investment banks had to create a system of governance that would assure foreign investors that their investments would be secure. J. P. Morgan & Co. “pioneered” the technique of placing a partner of the investment

170. In the Gilded Age, New York legislators were paid the princely sum of \$3.00 per day. These Solons supplemented their salary by taking bribes to pass legislation. The rate on important bills ranged between \$2,000 and \$3,000. GORDON, *supra* note 161, at 185. Bribes were the only way to do business with such a corrupt legislature and legislation was required for railroad charters and key amendments to charters, such as additional routes, etc.

171. The Erie Classification Act of 1869 was enacted to make it difficult to dislodge directors by shareholder vote. The Act provided for classification of directors into five groups, staggering their election over five years. KLEIN, *supra* note 163, at 98. (Modern practice permits only three tiers of classification. Management still employs classified boards to thwart hostile takeovers.)

Gould's inspiration was the Pennsylvania Classification Act, created to rebuff his attack on the Pennsylvania Railroad. The Erie Classification Act perpetuated Gould's control at a time when the legislature was poised to remove its stock printing privileges that had been employed to great success in the past. GORDON, *supra* note 161, at 228, 230.

172. *Id.* at 299-301.

173. Coffee, *supra* note 159, at 28.

174. Domestically the nation witnessed a rapid acceleration of the trend to economic concentration that had begun after the Civil War. In the last third of the nineteenth century the corporation emerged as the dominant form of industrial organization in the United States, so that by 1890, 65 percent of the goods manufactured in the country were turned out by corporations, and by 1900, 79 percent were. At the same time that the percentage of corporate producers was thus increasing, the stock of many large corporations became publicly held and the ownership so dispersed that no one stockholder had much of a say in how the corporation was operated. The result of this phenomenon was that a class of corporate managers grew up: While they were legally responsible to the stockholders, that latter body was so numerous that many important corporate decisions were made by the managers themselves without any thought of obtaining advance authorization from the stockholders. WILLIAM H. REHNQUIST, *THE SUPREME COURT* 103 (2001).

firm on the board of the corporation.¹⁷⁵ Morgan and other underwriters "first imposed the discipline of both periodic and inclusive financial reports," while, "Wall Street . . . required the accountants to certify these reports."¹⁷⁶ During the last two decades of the nineteenth century, virtually every major U.S. railroad developed close ties with one or more U.S. investment banking firms and the practice of partners from investment banks and officers of commercial banks going on the railroad's board became institutionalized.¹⁷⁷ A major investment banking firm on a corporation's board "offered mutual advantages both to the minority investors and to the corporate management by protecting both from the prospect of a stealth attack by a corporate raider seeking to acquire control without paying a control premium."¹⁷⁸ J. P. Morgan and other investment bankers consequently increased the importance of the Street to the world's economy and provided an atmosphere of solidity and integrity that the markets needed.¹⁷⁹

A similar transfer of power to the market did not take place in Europe. Financial institutions like J. P. Morgan either did not exist, or were too small to underwrite such large equity risks. In addition, they represented far fewer foreign and domestic clients.¹⁸⁰ Moreover, there was no great merger wave as there was in the United States from 1895 to 1903 after the passage of the Sherman Antitrust Act of 1890.¹⁸¹ The Act "prohibited price-fixing and collusion among competitors, thereby outlawing the cartel-like structure that characterized many American industries."¹⁸² In order to circumvent this prohibition, companies engaged in horizontal mergers to create monopolies that could better control prices. For example, in 1901, J. P. Morgan orchestrated the merger of eight competing steel companies to form U.S. Steel, the largest corporation in the world at the time. There was no similar incentive for British companies to merge in the same fashion, especially since British courts were not aggressive in the prohibition of cartels or price-fixing.¹⁸³

175. Coffee, *supra* note 159, at 29-30.

176. GORDON, *supra* note 161, at 291.

177. Coffee, *supra* note 159, at 30.

178. *Id.* at 31-32 (for example, J.P. Morgan in the 1869 "Susquehanna War").

179. GORDON, *supra* note 104, at 153.

180. Coffee, *supra* note 159, at 32.

181. *Id.* at 33. See also Cheffins, *supra* note 3 (the merger wave from 1895-1903 was critical in the establishment of dispersed ownership and the separation of ownership from control).

182. Coffee, *supra* note 159, at 33.

183. *Id.*

XI. THE NEW YORK STOCK EXCHANGE AS GUARDIAN OF THE PUBLIC INVESTOR

Three important points should be noted about the early history of the New York Stock Exchange: (1) activism in governance, such as that of the NYSE, was not the norm for other stock exchanges around the world;¹⁸⁴ (2) the NYSE, unlike with debt securities, “did not possess a *de facto* monopoly position in trading equity securities as of the late nineteenth century;”¹⁸⁵ and (3) the NYSE’s activism “seems directly attributable to its organizational structure and its competitive position.”¹⁸⁶ Before 1900, “the Boston Stock Exchange was the principal market for industrial securities,” due to the underwriting of New England textile mills and early railroad corporations.¹⁸⁷

There were several key differences between the NYSE and the London Stock Exchange (LSE). The first difference was the ability of new companies to be listed on the exchange. The NYSE was a very closed system, while the LSE was wide open.¹⁸⁸ For example, “[b]etween 1850 and 1905, the membership of the LSE rose from 864 to 5,567. In sharp contrast, the membership of the NYSE stayed constant between 1879 and 1914 at 1,100.”¹⁸⁹ A company could only enter the NYSE by buying the seat of an existing member. This closed system provided several incentives which the LSE’s open system did not: (1) “the growth of large, diversified financial services firms (such as J. P. Morgan & Co.);”¹⁹⁰ (2) the favoring of self-regulation to protect the value of a member’s seat; and (3) the fragmentation of U.S. equity markets into higher and lower quality tiers, which promoted competition between exchanges.¹⁹¹

A second difference between the NYSE and LSE was the membership rules: “NYSE member firms could raise capital from outsiders — known as ‘special partners’ — and not all partners in a firm were required to be members of the exchange. In contrast, the LSE required all partners in a firm to be members of the exchange and further prohibited every member from engaging in any other businesses.”¹⁹² The

184. *Id.* at 34.

185. *Id.*

186. *Id.*

187. *Id.*

188. *Id.*

189. *Id.* at 34-35.

190. *Id.* at 35.

191. *Id.* The NYSE specialized in top-tier firms (and still does). Therefore, it vetted the quality of firms for the dispersed investors.

192. *Id.* On the surface, the LSE seems more in tune with contemporary notions of “free” markets (more access, lower costs of access, competitive commissions, etc.). This notion makes perfect sense in the Information Age with the Internet and federal and exchange disclosure

NYSE's rules allowed U.S. firms to grow much larger, with better capitalization, than their British counterparts (at least five times larger).¹⁹³

A third difference was each exchange's position on the issue of "competitive versus fixed brokerage commissions."¹⁹⁴ Into the late nineteenth century, the NYSE had fixed commissions, while the LSE permitted variable commissions.¹⁹⁵ The NYSE's fixed commission policy increased the cost of trading and generated lower trading volumes, driving the lower priced stocks off of the exchange, which gave the general public the perception that such stocks were lower in quality and higher in risk. The policy also forced the NYSE to "limit itself to a high-volume, high-quality business" in order to meet minimum commissions. The limitation also came out of fear that "listing high-volatility stocks would invite predictable insolvencies among its members" (e.g., mining or petroleum companies). Therefore, the NYSE regularly rejected issuer applications, "either because the issuer lacked an adequate earnings track record, had insufficient assets, or was in a high-risk industry."¹⁹⁶

Finally, one of the most important developments of the NYSE was its mandatory disclosure policy for members, even in the absence of any formal law. In fact, "some financial historians date the advent of modern financial reporting from 1900, not from 1933, when the federal securities laws were first adopted."¹⁹⁷ Serious self-regulation may actually have been inaugurated somewhat earlier following the Erie Wars debacle. Wall Street realized that without supervision and monitoring, it could lose its position in the global capital markets.¹⁹⁸ Its close monitoring acted as a functional equivalent for future securities regulations, something not present with the LSE. One of the most important reforms was proscribing directors from selling their firms short.¹⁹⁹ Short-selling by directors and other insiders personified by the likes of Daniel Drew, the "Speculative Director" of the Erie, destabilized the market and led reasonable investors to conclude the market was rigged. Honesty and such regulation were good for business — a corrupt market drives away investors who fear losing their investments to fraud, countenanced by corrupt brokers. An honest market boosts sales and commissions and

requirements. However, one must remember that the nineteenth century did not have these tools and markets were susceptible to misinformation by sharp operators. Therefore, the monitoring performed by investment bankers and the NYSE was most beneficial.

193. *Id.* at 37.

194. *Id.* at 35.

195. *Id.*

196. *Id.* at 37.

197. *Id.*

198. GORDON, *supra* note 161, at 212-13.

199. *Id.* at 278.

leads to increased liquidity and investment. Self-regulation would help New York to surpass London as the dominant capital market within two generations.²⁰⁰

Consequently, by the end of the nineteenth century, the investment banking firms, led by J. P. Morgan & Co. and the NYSE, developed successful methods of monitoring corporate activity and protecting dispersed shareholders from predatory practices of speculators and Wall Street insiders.²⁰¹

Corporate investors adopted the plutocratic model because it provided liquidity. Diversified shareholders were able to counteract the hold-up problem because they could diversify and liquidate their investment. America's capital needs were so great for its first major industries — railroads — that local subscriptions and even state subscriptions could not provide enough capital. The United States was fortunate that it lagged behind Western Europe in its development. There was a capital surplus in England and a capital surplus on the Continent because they had already developed their railroads and canals and the rates of return were lower than what was being offered in the United States. Therefore, the United States enjoyed a flow of surplus capital from Europe to capital centers — Boston, New York, Philadelphia, etc. — and then into the hinterlands to develop infrastructure. In effect, America had people with money, whether they were wealthy Europeans or wealthy Wall Street bankers, putting money at risk in “foreign” territory.

Economically and politically, these investors demanded the one share/one vote structure because it provided them with the huge corporation staffed by professional managers. There was no way for investors to do the type of local supervision that had been possible with the small mines, cotton mills, textile mills, and shipping ventures a half century earlier. These investors were too remote from the business, but they accepted the separation of ownership from control because the board could hire professional managers and raise the capital the business required. Investors also demanded and received monitoring through their representatives, their lawyers, and investment bankers. These

200. *Id.* at 213.

201. Obviously, not all skullduggeries, such as pools and insider trading, etc., were curbed. That would be attended to at a later time with the passage of the federal securities acts in the 1930s. Another drawback to the monitoring system was the lack of modern accounting and financial standards. That, too, would come later. However, even with these additions and reforms, determined wrongdoers can still undermine the confidence of the markets, as seen with Tyco, WorldCom, HealthSouth, and Enron — some of the largest debacles of the modern era. Nevertheless, the monitoring by investment bankers and the exchanges went a long way toward creating modern, trustworthy capital markets that gained the confidence of atomistic investors in great corporations.

monitors protected the corporation and as a result, provided the basis for the liquidity investors called for.

Simultaneously, due to a large amount of money being organized and liquefied, was the development of financial intermediaries — investment banking firms, insurance companies, and a number of other institutions that helped to channel funds and act as guardians. Hence, there was a massive inflow of capital during the nineteenth century, with a lot of it coming from both Europe and the capital centers of the United States. This flood of money was predicated upon the plutocratic model changes in the markets and massively lowered the cost of doing business as money is a commodity that becomes cheaper and leads to even greater investment and economic growth.

XII. CONCLUSION

In the nineteenth century, America created an exceptionally different economic society from that which it had emerged. Hamilton's economic plans were of critical importance. They placed the United States on a firm footing that led to a flood of European and domestic capital. They laid the foundation for a finance-led industrial expansion.

Businesses were transformed by evolving capital markets. These markets provided a liquidity that funded the railroads, America's first great national industry.²⁰² Railroads were not only unique large businesses that advanced transportation; they opened up national markets. Railroads were the means leading to profound changes in corporate management and finance. This financial blueprint was replicated in the development of steel, refining, and other great industries.

American businesses evolved, in a short period of time, from closely controlled partnerships and corporations to the prudent mean, mixed management model. The final stage in the nineteenth century development of business was the dynamic, plutocratic corporation. This entity featured diversified shareholding, board control, and divisional management. While the investor surrendered much control and proprietary interest in choosing the plutocratic corporation, the benefits have been enormous to the owners and society.

202. Coffee, *supra* note 159, at 27.