

This PDF is a selection from a published volume from the  
National Bureau of Economic Research

Volume Title: Founding Choices: American Economic Policy in  
the 1790s

Volume Author/Editor: Douglas Irwin and Richard Sylla, editors

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-38474-8 (cloth); 0-226-38475-6 (paper)  
ISBN13: 978-0-226-38474-0 (cloth); 978-0-226-38475-7 (paper)

Volume URL: <http://www.nber.org/books/irwi09-1>

Conference Date: May 8-9, 2009

Publication Date: December 2010

Chapter Title: Rise of the Corporation Nation

Chapter Authors: Robert E. Wright

Chapter URL: <http://www.nber.org/chapters/c11744>

Chapter pages in book: (217 - 258)

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## Rise of the Corporation Nation

Robert E. Wright

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What is done in England by combination, unless it be the management of municipal concerns, is most generally done by a combination of individuals, established by mere articles of agreement. On the other hand, what is done here by the co-operation of several persons, is, in the greater number of instances, the result of a consolidation effected by an express act or charter of incorporation. . . . We cannot but be impressed with a deep sense of the importance of this law in our own country . . . In no country have corporations been multiplied to so great an extent, as in our own. If a native of Europe, who has never traversed the wide barrier which separates him from us should be informed, even with tolerable accuracy, of the number of Banking Companies, Insurance Companies, Canal Companies, Turnpike Companies, Manufacturing Companies &c. . . . that are diffused throughout these United States, and fully invested with corporate privileges, he could not be made to believe that he was told the truth.

—Angell and Ames 1832, v–vi, 35

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This chapter was written with the aid of research grants from the National Science Foundation (SES-0751577) and the Berkley Center for Entrepreneurial Studies at New York University's Stern School of Business, where the author taught from 2003 until 2009 when the chapter was drafted and revised. The author thanks Eric Hilt, Doug Irwin, Pauline Maier, Richard Sylla, John Wallis, and the NBER (July 2008) and Dartmouth (May 2009) conferees for their perceptive comments on earlier versions of the chapter. All errors of omission and commission, however, remain the sole responsibility of the author.

By breaking away from Great Britain and forming a new system of government, the founding generation transformed the institutional basis of their young nation's economy. No longer rigidly tied to Britain's empire or laws, Americans were free to build upon their colonial and British heritages and to adapt the best features of the old world to the unique circumstances of the new. They strove to imitate what worked well, improve what did not, develop what remained inchoate, and jettison what failed miserably. The multifaceted economic transformation they engineered spawned the world's largest, richest, and most dynamic economy.

The development of the for-profit business corporation was one of the most original and important aspects of the new nation's institutional transformation (Dodd 1954, 1, 195; Angell and Ames 1832, v, vii; Seavoy 1982, 46–47; Hurst 1970, 8; Arner 2002, 24).<sup>1</sup> Before the Revolution, American business corporations were few, small, and largely inconsequential.<sup>2</sup> The weight of imperial regulations and unenlightened and uninspired British corporate law, which imposed relatively high costs on would-be incorporators while offering little in the way of benefits (Banner 1998, 1–121; Dodd 1954, 195–97; Anon. 1835, 10), induced most colonial entrepreneurs to choose other business forms, including sole proprietorships, partnerships, and the unincorporated joint stock firm (Livermore 1939). Table 7.1 shows that after the Revolution, and particularly after ratification of the Constitution (Baldwin 1903, 449–65; Davis 1917, 4–8, 22–25, 31–32), U.S. corporations rapidly grew in number. By 1801, the institutional groundwork for further growth and development—some 20,000 specially chartered corporations with about \$6 to \$7 billion of authorized capital would be created by 1860—had been laid. As the head quote suggests, within a generation, America became the world's leader in corporate development, including the number of corporations and the sophistication and flexibility of its innovative corporate law (Maier 1993, 52; Dodd 1954, 198; Anon. 1829, 94; Cochran 1974).

Although debates about existing corporations or the efficacy of the corporate form played little role in its adoption, the Constitution was a formative element in the rise of the corporation nation. Many Americans, especially those in the more market-oriented coastal areas, readily perceived that the new frame of government struck the right balance between the lethargy of

1. Municipal governments, churches, and sundry nonprofit associations often took the corporate form and have been studied in some detail elsewhere. Here the concern is with “corporations formed with the primary object of securing pecuniary gain or avoiding pecuniary loss, for the benefit of the members” (Davis 1917, 3). A minor class of business corporations, the corporation sole, or a corporation consisting of a single individual, is also not discussed here as it was seldom used (Kent 1894, 2:273). For more on other types of corporations, see McCarthy (2003), Angell and Ames (1832, v), and Seavoy (1982, 9–38).

2. They were not annulled by the Revolution, “for the dismemberment of empire, it is well settled, caused no destruction of the civil rights of individuals or corporate bodies.” At least one, the Philadelphia Contributionship, survives to this day (Angell and Ames 1832, 504; Davis 1917, 10; Gower 1956).

the Articles of Confederation and the tyranny of British monarchy and that it contained sufficient checks and balances to ensure political stability. With policy uncertainty minimized and public goods like protection of life, liberty, and property relatively well-assured, the latent energies of entrepreneurs were unleashed (Wright 2008, 75–122). “A laudable spirit of emulation” soon suffused the nation, including both the “*Agricultural and Commercial States of the Union*,” the citizens of which began to undertake “the improvement of their respective territories, and transportation of their produce to the proper markets, by means of INLAND NAVIGATION and good ROADS” financed by banks and protected from loss by insurance companies (Anon. 1798a, 1).

The actions of early entrepreneurs bear out their words. In the 1780s, few established business corporations but the number of nonbusiness corporations such as municipal governments, churches, and voluntary associations expanded rapidly. Evidently, independence alone was sufficient to induce Americans to associate, but not until the Constitution was in place were they willing to invest significant sums of their own money in risky, large-scale enterprises. Cross-country comparisons cast additional light on the Constitution’s crucial role in increasing investment. Entrepreneurs in Florida, Louisiana, California, Texas, and other parts of North America did not embrace business corporations until they became subject to the Constitution or, in the case of Canada, until they came to be governed by a similarly well-constructed frame of government (Wright 2008, 237–46).

According to historian Pauline Maier (1993, 51), “social and economic development could have been accomplished in other ways,” without relying heavily on the corporate form. That is undoubtedly true, but the rate of such development would almost certainly have been slower. Entrepreneurs establishing for-profit businesses possessed strong incentives to choose the most efficient form of business organization in order to minimize project costs. Restricting access to the corporate form would have prevented the formation of some businesses entirely and decreased the efficiency of others. Without the corporate form, Americans would have paid more for their banks, bridges, canals, harbor facilities, roads, waterworks, and other improvements; waited longer before enjoying them; or extracted less quantity and quality output from them. The founding choice, to leave corporation formation decisions to state governments and entrepreneurs, ensured that early Americans could form corporations at relatively low cost in terms of time and money. Eventually, it ensured that they could do so on demand for a nominal fee.

This chapter shows that few corporations formed before the Constitution but many after it. It explains the proliferation of the corporate form from a cost-benefit perspective. Limited liability, entity shielding, perpetual secession, transferable shares, and the other privileges of the corporate form allowed corporations to achieve large size relative to other forms of busi-

**Table 7.1** Corporations chartered before 1801

	Colonial	1776-1789	1790	1791	1792	1793	1794	1795	1796	1797	1798	1799	1800	Total
<i>Jurisdiction</i>														
Connecticut	2	1	0	0	3	0	0	7	2	9	9	2	9	44
Delaware	0	0	0	0	0	1	0	0	1	0	0	0	0	2
Georgia	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Kentucky	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Maryland	0	3	1	2	1	1	1	4	3	0	4	1	0	21
Massachusetts	1	5	0	1	8	5	5	8	11	15	8	7	7	81
National	0	1	0	1	0	0	0	0	0	0	0	0	0	2
New Hampshire	0	0	0	0	4	1	2	8	3	4	1	3	3	29
New Jersey	0	0	0	1	1	0	0	2	1	2	0	3	2	12
New York	0	0	1	1	3	1	0	0	0	3	6	7	5	27
North Carolina	0	0	1	0	1	0	0	1	5	0	1	0	0	9
Pennsylvania	2	1	0	1	2	5	3	1	2	1	4	0	0	22
Rhode Island	3	0	0	1	2	0	3	1	1	0	0	2	7	20
South Carolina	0	4	0	0	0	0	1	0	0	3	0	2	0	10
Vermont	0	0	0	1	0	0	1	2	1	4	0	4	5	18
Virginia	0	6	0	0	2	1	1	6	1	0	2	0	1	20
Total	8	21	3	9	27	15	17	40	31	41	35	33	39	319

<i>Type</i>	0	2	1	3	8	3	0	5	2	0	0	2	3	29
Banks	0	3	0	1	10	6	7	13	6	14	6	3	2	71
Bridge	0	12	1	3	7	5	2	8	12	5	5	3	2	65
Canal														
Insurance														
Fire	1	2	0	1	0	0	2	3	0	1	3	0	1	14
Marine	0	0	0	0	0	0	2	2	0	2	3	5	5	19
Manufacturing	0	1	1	1	0	0	1	0	1	1	0	0	1	7
Mapping	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Mining	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Pier/wharf	2	0	0	0	0	0	0	1	0	0	1	0	0	4
Trading	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Turnpike	0	0	0	0	1	0	3	6	6	10	11	15	21	73
Viticulture	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Water utility	3	0	0	0	1	0	0	2	4	8	6	4	4	32
Total	8	21	3	9	27	15	17	40	31	41	35	33	38	319

*Sources:* Baldwin (1903); Davis (1917); sundry state session laws, acts and resolves, and statutes at large were also consulted, as were state archival records and published charters and bylaws when available.

*Notes:* I count original charters only, not laws reviving existing charters or laws that merely validate corporations already chartered by another state. I was able to verify almost all of the charters found by Davis (1917). I include one organization that he dismissed as a charity but removed another (very charity-like) organization that he believed to be a for-profit corporation. I found one turnpike in Connecticut not listed in Davis. Future research may uncover additional charters, but it is highly unlikely that any significant number of business corporations chartered prior to 1801 have been missed. Of the 319 business corporations tracked in the table, I found positive evidence that fifteen of them never began operations. For most others, ample evidence from subsequent laws, newspaper notices, letters, and other contemporary sources exists. No systematic effort, however, has been made to verify the operation of the other corporations. Most early corporations performed only one activity. A few, however, engaged in two or more activities, for example, bridges and turnpikes or fire and marine insurance. They are categorized in this chart according to what appears to have been their primary activity.

ness organization. Large size allowed corporations to exploit economies of scale; gain market power; and undertake projects too large, complex, or long term for other types of organizations to complete. The biggest cost of the corporate form was agency problems, especially between stockholders and employees, including managers. Early corporations also faced political risks associated with the widespread misconception that their “special privileges” threatened the nation’s political institutions and that corporations constituted pernicious “monopolies,” careful deconstruction of which term shows that Americans were concerned with issues of market power and structure. Corporations struggled with those and related problems but reduced them enough to allow for tremendous growth of both the corporate form and the economy.

### 7.1 A Cost-Benefit Approach

The 3,884 entrepreneurs involved in forming U.S. corporations in the 1790s opted for the corporate form when the net benefits (all benefits minus all costs) of incorporating exceeded the net benefits of forming a sole proprietorship, partnership, or other type of business organization.<sup>3</sup> For some lines of business, like commercial banking and insurance, the net benefits of incorporation almost always outweighed the net benefits of other business forms.<sup>4</sup> For other lines, particularly manufacturing, noncorporate forms sometimes offered higher net benefits. A few early Pennsylvania iron manufacturers incorporated their firms, for example, but until the mid-nineteenth century, most did not; tanners generally eschewed the corporate form throughout the nineteenth century (Paskoff 1983, 91–131; Ellsworth 1972, 399–402). In the 1790s, taxation was low and hence not a major consideration for entrepreneurs deciding whether to incorporate (Heath 1954).

The two main costs of incorporation included internal agency conflicts between majority and minority shareholders, shareholders and bondholders, and shareholders and managers as well as the costs of obtaining a charter from state legislatures. The latter cost was increased by political animosities stemming from commercial rivalry as well as anticorporate prejudices

3. This is the count of all persons named in early acts of incorporation as incorporators or stock subscription agents. Many individuals were involved in more than one corporation, but undoubtedly many others were involved in corporation formation who were not explicitly mentioned in legislation, which did not always provide the names of incorporators.

4. This analysis answers the questions raised by Handlin and Handlin (1945). The same net benefit framework can also be used to analyze why entrepreneurs chose the particular form of incorporation that they did. For-profit corporations came in three major varieties, joint-stock, mutual, and mixed. Stockholders owned joint-stock corporations; depositors, policyholders, or other types of customers owned mutuals. Mixed business corporations were partly owned by stockholders and partly by customers. In the 1790s, most American corporations took the pure joint-stock form, but several insurers opted for the mutual form.

inherited from the old world and the deepest recesses of the human psyche. Until well into the nineteenth century, incorporation required the formal sanction of government, at times subjecting early incorporators to intense political pressures. Those costs declined over the first half of the nineteenth century as anticorporate sentiment waned (without disappearing) and state legislatures rendered the chartering process faster and cheaper (Anon. 1835, 9–10; Evans 1948).

The biggest benefit of incorporation was the almost singular ability of corporations to raise large, long-term pools of capital. Demand for long-term corporate securities, both bonds and equities, stemmed from six major sources: (a) the corporation's power of perpetual succession; (b) its ability to sue and be sued in its own name; (c) limited liability and entity shielding; (d) various technical advantages of corporate over more complex and convoluted partnership law; (e) the sale of call options in the primary (issuance) market; (f) the existence of liquid secondary markets. In other legal aspects of business, from general contracts to the employment of agents, corporations could generally do, within the confines of their charter, whatever sole proprietors or partnerships could do (Angell and Ames 1832, 376; Anon. 1835, 11–12; Anon. 1829, 94). So when large sums of capital were necessary and the costs of obtaining a charter were minimal, entrepreneurs usually opted for incorporation.

Quantifying with precision how much development of the corporate form aided the growth of the early U.S. economy presents insurmountable empirical barriers. That the corporate form helped the economy, rather than hurting it or serving a neutral role, is, however, undeniable. As explained in the preceding, entrepreneurs usually sought incorporation because they wanted to establish and operate large businesses more cheaply than they could by forming proprietorships or partnerships. Large business enterprises helped economic growth in at least three ways. First, in many lines of business, they lowered production costs by exploiting economies of scale. Second, large size allowed for greater vertical integration where appropriate. Third, by holding out the promise of market power, they stimulated entrepreneurship and hence helped to drive technological innovation. To the extent that it was too costly or even impossible to operate large businesses without a corporate charter, incorporation aided the economy (Cochran 1974).

## 7.2 Counting Costs

Obtaining a corporate charter in early America was far from costless. Those costs varied over time, place, and type of business but clearly declined over time and just as clearly were from the start lower than in Europe. Moreover, the costs of obtaining incorporation compared to the costs of forming other types of businesses are easily overestimated. The costs of governing corporations or, in other words, of limiting the internal agency problems

that they faced, were considerable. Again, though, those costs tended to decrease over time and, compared to the agency costs of partnerships, are easy to overestimate.

### 7.2.1 Obtaining a Charter

In the United States in the 1780s and 1790s, as elsewhere in the world in the eighteenth century, so-called special incorporation was the norm. Obtaining a corporate charter required passage of a statute or, in other words, a law that explicitly granted corporate privileges to a specific group and that detailed the corporation's name, location, and vocation, and that sometimes stipulated its authorized capital, the number and duties of its directors, stockholder voting rights and liability, and other corporate characteristics. "Corporations," Zephaniah Swift correctly asserted in 1795, "can be created only by act of assembly" (Swift 1795, 225).

Many, perhaps most, entrepreneurs were able to win a charter quickly and cheaply by petitioning the legislature of the state in which they wished to conduct business (Hurst 1970, 46–47; Blandi 1934, 92). Paper, pen, publicity, and postage, as well as the time needed to collect signatures and shepherd a bill through the legislature, constituted the biggest outlays. Other enterprisers expended large amounts of time, effort, and money, including the cost of lobbyists and bribes, before gaining charter (Cadman 1949, 7–12). Costs increased, but usually were not doubled, when a corporation, like a toll bridge over the Delaware River (separating New Jersey from Pennsylvania), needed to obtain a charter from two states. Additional costs were incurred if a corporation needed to update its charter, a frequent occurrence (Cadman 1949, 13–14). Those costs varied with the ambitiousness of the suggested amendment(s) but apparently were seldom prohibitive as in many states the number of charter revisions equaled or exceeded the number of new charters granted.

Every experience was unique, but some generalizations can be made. Generally, entrepreneurs who sought to compete with the state, either directly or because the state owned shares in existing enterprises, found it costlier to obtain a charter than ones who did not threaten the state's coffers. Likewise, enterprises that seemed to offer more direct net public benefits found incorporation relatively cheaper (Livermore 1935, 674–87; Dodd 1954, 44; Gunn 1988, 106; Seavoy 1982, 5–7; Hurst 1970, 15; Heath 1954, 323–24). Toll bridge companies, for example, found it cheaper to gain legislative sanction than, say, mining companies. Turnpikes created public benefits but sometimes encountered political resistance because they could invoke the dreaded power of eminent domain (Majewski 2000, 85–86). Smaller enterprises, all else constant, had an easier go of it than larger ones. Most important, the costs of obtaining a charter trended downward over time in most states as anticorporate angst subsided and more legislators sought to aid business interests (Moss 2002, 53–84). Legislators also became more efficient by

copying existing charters, creating charter blanks and blanket corporation laws, and, eventually, passing general incorporation acts that depoliticized the chartering process (Dodd 1954, 3, 269–70; Gunn 1988, 110, 227; Seavoy 1982, 5; Cadman 1949, 12).

Those gains were partially offset, however, by increased imposition of bonuses or other taxes on new and existing corporations (Livermore 1935, 676–77; Dodd 1954, 30–31, 45–46, 266–68; Angell and Ames 1832, 257–74; Blandi 1934, 72–81; Cadman 1949, 389–404). Large increases in the number of corporate charters granted in the first half of the nineteenth century were a function of both an increased number of entrepreneurs seeking incorporation and the decreased cost of producing charters. (In economic parlance, more charters were obtained due to a rightward shift of the incorporation demand curve and a rightward shift of the incorporation supply curve.)

Regardless of time or place, legislators faced limits on the costs that they could impose on entrepreneurs, who enjoyed at least three other major options. One was to bide time and try again at the next session. The Bank of New York took that approach. Another was to set up operations in a more pliable state. The Society for the Establishment of Useful Manufactures, for example, opted for New Jersey after its legislature expressed support for the project (Cadman 1949, 32–33).<sup>5</sup> Likewise, the Jersey Bank nominally operated in Jersey City but kept an office on Wall Street where it conducted most of its business. Later, it incorporated in New York to avoid a New Jersey tax on bank capital (Anon. 1804b; Dreikorn 1949, 22).

A third option was to organize as an unincorporated joint-stock association, a sort of charter by private contract rather than government sanction. Precedent for this included British common law joint-stock associations in general and various colonial joint-stock associations, including colonial land companies and the Philadelphia Linen Manufactory, in particular (Dodd 1954, 366–67; Davis 1917, 5, 258–62; Livermore 1939). Established during the long debt deflation that followed the French and Indian War, the organizers of the linen manufactory formed a joint-stock company by soliciting subscribers to articles of association or agreement that tried to replicate the main features of the corporation via contract (Anon. 1764). Initial and subsequent stockholders signed articles of agreement providing for election of directors and other internal governance procedures. Creditors, too, had to sign a contract stipulating that the association's stockholders were not personally liable for its debts.

Contracting costs and the legal risks of unincorporated status were high enough to induce most associations to seek a charter until one was obtained (Swift 1795, 225; Moss 2002, 80–83; Angell and Ames 1832, 23, 46, 373; Hurst 1970, 14; Livermore 1939, 272–94). Nevertheless, a significant number

5. By the 1830s, such practices were rampant: "When they could not get charters from our own legislature, they procured them from other states" (Taylor 1833, 16).

of entrepreneurs resorted to this expedient. The Bank of New York operated for some seven years as a joint stock association (Davis 1917, 44–45). Massachusetts's Essex Bank was also in operation for about seven years before obtaining a charter (Davis 1917, 78, 98). The option was removed for banking associations, however, when states passed laws forbidding unincorporated entities from engaging in commercial banking, or at least the note issue aspect of it (Dodd 1954, 205–6). That did not stop other types of companies from starting operations as associations, however. The New York Insurance Company began operations in 1796 under article of associations before gaining a formal charter in 1798 (New York Insurance Company 1796). The following year, the Marine Insurance Office of Baltimore formed under articles of association, its 400 shares snapped up by thirty-six area merchants (Marine Insurance Office 1799). The Mutual Assurance Company of New York began operations under articles of association in 1787; not until 1798 did it obtain the official sanction of the New York legislature (Mutual Assurance Company 1787). The Stamford Mutual Insurance Company likewise began its existence unincorporated, its members bound by a “constitution” dated February 20, 1797 (Stamford Mutual Insurance Company 1797). The Hamilton Manufacturing Society began operations a year before receiving its charter in 1797, and the Salem Iron Factory Company began operations in 1796, four years before obtaining its charter (Seavoy 1982, 61–62; Davis 1917, 279). Numerous other companies held direct public offerings of stock (DPOs) in anticipation of obtaining a charter, a practice generally upheld by the courts (Dodd 1954, 78–80; Davis 1917, 33). The Warren Insurance Company and the Washington Insurance Company (both of Rhode Island), for example, held direct public offerings (DPOs), elected directors, and enacted bylaws before the Rhode Island legislature enacted their charters (Warren Insurance Company 1800; Washington Insurance Company 1800).

The existence of such associations pressured governments to liberalize chartering provisions lest they lose control of the process and the power and taxes it brought. Considerable anticorporate sentiment among voters, however, constrained legislators from too liberally doling out charters (Davis 1917, 303–9). Antimarket and antimonopoly biases may be inbred, a constant condition of the human psyche, but historical circumstances sometimes exacerbated those natural predilections (Caplan 2007, 34). The Mother Country's experience with monopolies, behemoths aligned with the government ostensibly designed to promote state ends while simultaneously enriching stockholders, directors, and managers, usually at the expense of consumers, further biased Americans against early corporations (Hovenkamp 1988, 1:595).

### 7.2.2 Anticorporate Angst

In 1796, a British wit defined a corporation as “an infamous relic of the ancient feudal system; a tyrannical, exclusive monopoly, generally consisting

of gluttons, idiots, and oppressors; brutes in a human form” (Pigott 1796, 15). Harsh words indeed but by no means out of line with the sentiments of learned British scholars (Anon. 1785, 11–12; Davis 1917, 6). “One great cheque to industry in England,” brilliant political economist David Hume was said to have asserted, “was the erecting of corporations, an abuse which is not yet entirely corrected.” University of Glasgow professor Adam Smith also disdained most corporations, which he believed caused two major problems, internal agency conflicts and monopoly (Arner 2002, 38–42). Agency costs arose from the fact that managers followed their own interests, which were often distinct from those of stockholders. “Being the managers rather of other people’s money than of their own,” Smith argued, managers did not watch over the business “with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own” (Smith 1937, 700). Outside of banking, insurance, and large public works like canals and water utilities, joint-stock companies were ill-advised, Smith believed. For most corporations to be profitable, he argued, the government had to provide them with monopoly privileges (Smith 1937, 699–716), another “great enemy to good management” and economic efficiency (Smith 1776, 1:184).

Monopoly for Smith came in two varieties, international trade restrictions and companies with considerable domestic market power (Smith 1776, 2:31, 243). Both varieties were lucrative, Smith pointed out, so “merchants and manufacturers are always demanding a monopoly against their countrymen” (Smith 1776, 2:50). Business interests often won their monopolies by making government “subservient” to their interests. “They will,” he explained, “employ the whole authority of government, and pervert the administration of justice, in order to harrass [sic] and ruin those who interfere with them in any branch of industry . . . they may chuse to carry on” (Smith 1776, 2:252–54). That made it costly or, in extreme cases, impossible for competitors to emerge (Smith 1776, 2:42). Able to quash competition with political force instead of innovation, monopolies grew fat, indolent, and inefficient.

Smith also argued that monopoly trade restrictions “must, in almost all cases, be either a useless or a hurtful regulation” (Smith 1776, 2:36). “All the original sources of revenue, the wages of labor, the rent of land, and the profits of stock,” he argued, “the monopoly renders much less abundant than they otherwise would be” (Smith 1776, 2:219). That was damning testimony indeed, but not everyone agreed with Smith, especially monopolists and their apologists. Thomas Pownall, for example, told Smith that although he had “seen some errors in the extension of the measure, further than is expedient or necessary, yet I do not see the malignancy of the principle of monopoly; nor while I have lived amidst the daily proofs of the relative advantage which it gives to the mother country, by its colonies” over other foreign powers (Pownall 1776, 7). In America, however, the nuance of the parent was lost; monopoly was evil, plain and simple.

The wrenching separation from the mother country helps to explain the especially deep antipathy toward monopoly voiced during the Early Republic. Complaints of Britain's trade restrictions, its so-called monopoly of trade, suffused the imperial crisis (Smith 1776, 2:222; Anon. 1780, 74, 77; Ramsay 1785, 9, 372; Price 1785, 50; Franklin 1794, 161; Winterbotham 1795, 423), particularly the tea troubles (Donoughue 1964, 22). After the Revolution, hatred of Britain continued unabated, with frequent allusion to her "love of monopoly" (Findley 1794, 107; Baldwin 1903, 464–65). Anything smacking of monopoly was tainted and, in some states, unconstitutional (Anon. 1790, 89–90). Tennessee's constitution stipulated "that perpetuities and monopolies are contrary to the genius of a free state, and shall not be allowed" and other state constitutions did likewise (State of Tennessee 1796, 26; A Farmer 1792, 20). In 1787, for example, a New Yorker noted that there were two ways "by which a monopoly may be effected; one proceeding from the authority of the state, and the other by means of an association, which as it acquires artificial strength from the collective wealth, is enabled to surpass, and eventually to defeat, the efforts of enterprising individuals." Because the state "happily denies the power to sanction a monopoly," the commentator noted, "the only question that can arise is, how far the government ought to exercise its power to prevent one" (Anon. 1787a, 2). Some New Yorkers even sought to amend the U.S. Constitution to prohibit the federal government from granting monopolies (Baldwin 1903, 464).

Monopoly also had dire political implications for early Americans. Perhaps Thomas Paine summed it up best when he wrote: "As property honestly obtained is best secured by equality of rights, so ill-gotten property depends for protection on a monopoly of rights. He who has robbed another of his property, will next endeavour to disarm him of his rights, to secure that property" (Paine 1795, 26). For many early Americans, corporations smacked too much of aristocracy, of hereditary privilege (Maier 1993, 66). They saw corporations as permanent monoliths because they did not yet appreciate the rapid change in ownership that the joint-stock form and liquid secondary markets made possible. Nor did they yet understand that middling and poorer sorts could, and would, own corporate equities (Maier 1993, 69–70; Wright 2002).

Distrust of monopoly ran so deep in the 1790s that some Americans opposed patents because "they conceive them to be *monopolies*" (Barnes 1792, 27). Learned Vermont jurist Nathaniel Chipman called "a system of monopoly, one of the greatest evils in civil policy" (Chipman 1793, 214). While he tolerated them "in a limited degree, for the improvement of arts, and the encouragement of genius," New York jurist James Kent also castigated monopolies because they fostered "inequalities of power and property," inviting indolence, damping enterprise, and facilitating corruption (Kent 1795, 20). Like Smith, Kent also considered mercantilism a form of

monopoly because it gave artificial market power to the center at the expense of the periphery (Anon. 1798b, xvi–xxiii).

In addition to using “monopoly” to describe restrictive international trading systems like mercantilism, early Americans used the term to describe domestic market structures. Economists now think of competition as a spectrum, with perfect Smithian competition at one end and monopoly at the other. In between lay monopolistic competition, oligopoly, duopoly, contestable monopolies, and other types of imperfect markets (Lee 1990, 17–31). Early Americans, by contrast, labeled any market power, anything that was not pure competition, monopoly. They simply did not have the terminology to express the notion of market power in any other way. Use of the word monopoly in English dates to at least the sixteenth century. By the mid-eighteenth century, if not earlier, its meaning in some contexts strayed from the strict definition of the exclusive possession or control of a good to any persons or groups that could influence price, quantity, or quality (Rolt 1756, 541–44). Duopoly, oligopoly, monopolistic competition, and market power, by contrast, were not widely used until the twentieth century.<sup>6</sup> The broad definition of monopoly explains why early Americans regularly used it to describe market structures that clearly were not characterized by a single dominant firm.<sup>7</sup>

When early Americans used the word monopoly they sometimes meant precisely the same thing we mean by it today, an industry dominated by a single large producer ([Bard][1835?], 1). Clearly, however, they sometimes simply meant market power, as evidenced by more discerning writers who qualified their use of the term with phrases like “exclusive,” “complete,” “partial,” “almost,” “principles of,” “spirit of,” “sort of,” “partaking of the nature of,” and so forth (Hurst 1970, 30, 43; Anon. 1804a, 17). Baker John White, for example, explained to the Massachusetts legislature that for centuries the number of bakers allowed to bake in Great Britain had been limited by the bakers themselves.<sup>8</sup> That policy, he argued, was “attended with the same consequences, as a monopoly, though in a less degree” (White [1791?], 2). An anonymous writer in 1791 noted that traders could collude to bring “trade near to an open, or at least a concealed, monopoly.” “They will have momentary power,” he argued, but soon they will suffer “a weakness as great as their short-lived splendour was dazzling” (Anon. 1791a,

6. *The Oxford English Dictionary*; Hovenkamp (1988); Readex’s *Archive of Americana*, searchable full-text of most early American newspapers, broadsheets, pamphlets, and books; and Thomson’s *Making of the Modern World*, searchable full-text of the Goldsmith-Kress collection, record no valid hits of their use in America prior to 1820. Monopoly, however, appears in thousands of entries.

7. According to Duer (1819, 14), the following definition of monopoly was “of common use and known import”: “Monopolies are sole grants of any trade or occupation, or of exclusive privileges, which ought to be common.”

8. Ireland had a similar institution, designed, the bakers claimed, to ensure they “could obtain a living Profit” (Baker 1756, 4).

43–44). Economists today recognize this as a failed attempt to create a cartel. Similarly, Philadelphians long complained about a law that mandated that all auctions within the city be conducted by a single vendue master (A Plain Dealer 1786, 2). In 1790, the legislature responded by appointing a second vendue master. “A Philadelphia Merchant” objected, noting that “this, to be sure, may be a temporary *palliative*; but can never effect a *radical cure* of the evils attendant on a monopoly of this business. For if a *monopoly* be dangerous and liable to abuse, the same objection may be made against confining it to *two*” (A Philadelphia Merchant 1790, 2).

In early tariff debates, legislators also used monopoly loosely, as economists use the term market power today. In 1789, for example, George Gale (1756–1815, F-MD) thought a nine cent levy on beer too dear because it “would give the brewers here a monopoly.” Thomas Fitzsimons (1741–1811, F-PA) and Tench Coxe both spoke of breaking the “monopoly” European nations enjoyed in the Eastern trade (Lloyd 1789, 1:65, 96; Coxe 1792, 23). Similarly, in 1797, “An Inhabitant” of New York complained that numerous “small grocers and hucksters” monopolized the market for food. “Not a vessel or boat” laden with food, he complained, was “not bought up in large quantities for the purpose of retail—whereby” consumers were forced to pay “of those retailers at the advance from 25 to 100 per cent” (An Inhabitant 1796, 3).

More to the point here, critics assailed early U.S. corporations as evil monopolies even when the institutions sought or obtained nothing close to full market power. Critics often portrayed banks as monopolies, for example, even as they proliferated and even though they did not claim the exclusive right to make loans, accept deposits, or even issue notes. Although it helped America to win its independence by serving as a quasi-central bank during the final phase of the Revolution, the Philadelphia-based Bank of North America came under intense political fire that in 1785 led to the revocation of its Pennsylvania charter.<sup>9</sup> Bank critic William Findley admitted that “whether the bank is a monopoly in the strict legal sense of the word” was an open question. But “in the common sense,” he claimed, it was “a monopoly, and being so in its nature, it must be so in its effects.” That made it “inconsistent with not only the frame, but the spirit of our government.” “By taking advantage of a scarcity of money, which they have it so much in their power to occasion,” he claimed, the bank’s directors and stockholders “may become sole lords of the soil” (Anon. 1786b, 3:98). Apparently, like some other early bank critics, Findley believed the bank could control the money supply and interest rates and hence, to a considerable degree, land prices (Anon. 1785, 9; Anon. 1827).

9. Massachusetts and New York chartered it in early 1782, but it had no physical operations in either place. Congress also chartered it, but many believed its actions were unconstitutional (Davis 1917, 36–43).

The Bank of North America's founder, merchant-speculator-politician Robert Morris, retorted that there was no chance that the bank's stockholders could form a "monopoly" because they were numerous and diverse and the market for the bank's stock was active. In fact, he argued, the bank prevented monopoly in other areas of the economy by extending credit to numerous entrepreneurs. Finally, market forces, not the bank, determined the money supply (Anon. 1786c, 3; Anon. 1804a, 10; Platt 1811, 5). The Bank of North America won recharter in 1787 but over time became just one state-chartered commercial bank among many (Davis 1917, 43–44). The problem had never been the bank itself but rather the lack of competition. One critic of the bank argued that "it will not be denied to be a monopoly, if it has sufficient influence to make head against all attempts at establishing a similar institution" (Anon. 1786b), an allusion to a failed attempt to establish another bank in Philadelphia in late 1783 and early 1784 (Davis 1917, 40–42). Rather than destroy the bank, and perhaps the nation's struggling economy with it, the solution was to grant additional bank charters. "The establishment of another bank," many realized, would produce "a speedy and power influence towards producing" desirable ends, like a flourishing economy. Competition would squelch the "untowardness of men's passions" more readily and thoroughly than direct government regulation could (Citizens 1792).

The Bank of North America's successor as the national government's bank, the Bank of the United States (BUS), also found itself assailed as a monopoly even though it clearly was no such thing in the strict sense of the term. Even some shareholders of the Bank of North America called the new bank a monopoly (Webster 1791, 14)! John Taylor claimed that the BUS allowed a small number of people to monopolize "the bulk of the circulating medium." Apparently, he feared the bank would be able to influence both interest rates and the price level by increasing or decreasing the quantity of money in circulation (Taylor 1794, 11, 73–75, 80). Although the BUS dwarfed existing banks early on, it steadily lost market share because its capital remained fixed while state banks multiplied rapidly. Moreover, its monetary liabilities (notes and deposits) were convertible on demand into gold or silver, firmly tethering the money supply and interest rates to world markets.

Nevertheless, claims of the Bank's monopoly persisted. "Was it necessary that the advantages arising from the deposits of public money," William Findley asked, "should be given as a monopoly to one institution, and government deprived of a competition of proposals?" (Findley 1794, 78, 93). George Jackson (1757–1831, R-VA) also considered the BUS "a monopoly of the public monies" (Anon. 1791b, 2:754). In fact, it was not even that because the Treasury Secretary could and did deposit monies elsewhere for various reasons. But most public funds went into it and under the broader definition of monopoly then current that was enough. For the same rea-

son, Peletiah Webster could credibly complain of the “monopoly of bank-influence in the hands of a few stockholders” of the BUS (Webster 1791, 14).

Disappointed loan applicants who blamed Federalist-controlled banks for extending discounts based on political preference further fueled claims of monopoly (Anon. 1793, 3; Anon. 1796). In sooth, those denied loans should have blamed excess demand for loans at the maximum rates allowed by law for their misfortune. After the incorporation of more banks, including some which lent extensively to Republicans, monopoly charges faded. “A necessary competition,” one observer claimed after the Manhattan Company began banking operations, “has annihilated the despotism of banking monopoly” (Philander 1800, 3; Anon. 1800b, 1). Some nonbank corporations, particularly manufacturing companies, may have also enjoyed considerable local market power simply due to the high transportation costs that prevailed in parts of the early nation, particularly the South. In those situations, allowing additional corporations to form in the affected region provided the necessary relief (Bateman and Weiss 1981, 143–56).

Paradoxically, then, Americans’ morbid fear of monopoly engendered corporation proliferation, and not only in banking (Maier 1993, 67). In his 1791 report on manufacturers, Treasury Secretary Alexander Hamilton claimed that opponents of “the expediency of encouraging manufactures in the United States” argued that “a virtual monopoly will be given” to those aided “and an enhancement of price, the inevitable consequence of every monopoly” would soon follow. Hamilton responded, correctly, that “the internal competition, which takes place, soon does away every thing like monopoly, and by degrees reduces the price of the article to the *minimum* of a reasonable profit on the capital employed” (Hamilton 1791, 2, 27). That did not stop George Logan, dressed in the rhetorical garb of “A Farmer,” from arguing in 1792 that the Society of the Establishment of Useful Manufacturers would injure manufacturing because no man would “think of giving seven years of the prime of his life to acquire the knowledge of any profession in which he may be supplanted by a junto of monied men, under the immediate patronage and protection of Government” (A Farmer 1792, 20). Logan exaggerated and missed Hamilton’s point. For the most part, early charters merely enabled corporate entrepreneurs to compete against other economic entities. Market forces dictated which businesses won and which lost. Sometimes, as in marine insurance, corporations came out on top. Other times, as in manufacturing, a variety of business forms persisted for generations.

Early corporations may have enjoyed the presumption of monopoly, as Supreme Court Justice Joseph Story later held, but in fact few charters contained explicit promises of monopoly rights (Hovenkamp 1988, 1:610; Hurst 1970, 35; Cadman 1949, 224–28). In 1799, New Jersey granted a corporation the exclusive right to sell maps of the state for fifteen years. It clearly thought of the monopoly as akin to a patent or copyright as the mapmaker’s intel-

lectual property, the extensive surveys required to create the first copy of the map, could easily be lost to a mere copyist (New Jersey 1799, 652–54). For similar reasons, bridges and other transportation companies were often promised a local monopoly of so many yards or miles for a period of years in order to protect their capital investment.

In most instances, however, government protection of monopoly rights was neither necessary nor desired (Davis 1917, 320). Where monopoly was granted, or where a degree of natural monopoly was thought to exist, state governments regularly capped tolls, interest rates, or dividends (Cadman 1949, 234–38). Nevertheless, criticism of corporations continued, their “monopoly” powers associated with special privileges. Corporations “are founded on the right claimed by government, to confer privileges and immunities on one class of citizens, not only not enjoyed by the rest, but at the expense of the rest,” Jeffersonian political economist Thomas Cooper complained (Hovenkamp 1988, 1:634; Gunn 1988, 110–11). Noncorporate firms often complained bitterly about corporate competition, but their complaints were rarely heeded. When the first chartered marine insurers appeared, for example, premiums dropped, inducing individual underwriters to protest vigorously. By reducing premiums, one apologist argued, showing little regard for his clients, the new corporations did nothing but invade “the fair profits of private industry” (Mercator 1793). State legislators generally refused to arrest progress by giving in to the cries of those being fairly defeated in the marketplace because it would have been politically costly for them to do so.

In the nineteenth century, disdain for special privileges and favors dramatically reduced the cost of obtaining a charter by ushering in the age of general incorporation (Hurst 1970, 30–34). That anticorporate angst eventually led to the creation of *more* corporations should not be surprising because most Americans hated only other people’s monopolies. Their own monopolies and corporations were just fine, as evidenced by the fact that many of the people who wailed against some corporations were stockholders or directors in others (Maier 1993, 52–53, 74; Davis 1917, 306–7). “There is scarcely an individual of respectable character in our community,” two jurists noted in the early 1830s, “who is not a member of, at least, one private company or society which is incorporated” (Angell and Ames 1832, 35).

### 7.2.3 Governing the Gargantua

From political economist Adam Smith to mining observer George Taylor, critics noted that internal agency problems within corporations were endemic (Taylor 1833; Hurst 1970, 48). George Logan argued in 1792 that corporate managers were “uninterested Agents” that aggrandized themselves at the expense of shareholders (Maier 1993, 72–73). Corporations certainly faced internal agency problems, but so too did partnerships, especially ones that tried to achieve large scale. Partners were fully liable for

each other's debts, so they had to monitor the activities of other partners closely. Adding partners added capital but also monitoring costs. Partnerships coped with that trade-off the best they could, usually by limiting their size and number of partners, but at times they succumbed to internal squabbling, shirking, and even theft. Forewarned of agency internal conflicts, entrepreneurs and legislators were forearmed. As a result, the governance of early U.S. corporations, although far from perfect, was remarkably good.

Legislators put some features of early corporate governance into place mainly to protect the public from potentially rapacious companies. Limitation of corporate charters to a specific number of years and explicit provision of their right to repeal or amend charters led the list, but to some extent, maximum capitalization, voting rules, and mandatory director rotation also were thought to protect society from the influence of a few great rich aristocrats (Maier 1993, 75–77; Hurst 1970, 47; Bonney 1857, 6). Such strictures, however, were also important mechanisms of internal corporate governance.

Some early corporate charters provided shareholders with one vote for each share they owned, respectively, as is typical today. Other charters, however, stipulated that each shareholder received one vote, regardless of the number of shares he or she owned. Others mandated what Alexander Hamilton called a “prudent mean,” a voting rule between the extremes of one person, one vote and one share, one vote. The idea was to balance the power of large and small shareholders, so that each felt protected from the others. Voting was by secret ballot, so stockholders could exercise their franchise and “avoid the odium and violence of party prejudice” (Angell and Ames 1832, 195; Coxe 1786, 3–6).

According to historian Colleen Dunlavy (2006, 1:354; 2004, 72–79), under the common law, shareholders received one vote per person unless the corporate charter stipulated otherwise.<sup>10</sup> Because most early charters did not discuss voting rules, most corporations provided each shareholder with one vote, she concludes. As an empirical matter, however, three-quarters (238 of 319) of early charters did, in fact, explicitly mandate voting rules. (The other eighty were either completely silent on the matter or were so poorly worded that no determination of the voting rule could be made with confidence.) About one-third (ninety-eight) of early charters explicitly granted shareholders one vote per share without limitation. Approximately one in five (sixty-four) stipulated that shareholders should receive one vote per

10. Dunlavy's claim rests on Cadman (1949, 307) and Kerbel (1987, 47), both of which rest on a single case, *Taylor v. Griswold* (misspelled by Kerbel as Griswald), 14 *New Jersey Law* (1834), 224. However, Ratner (1970, 3–11) argues persuasively that the common law had no fixed rule regarding voting rights when they were not made explicit in corporate charters. The rule apparently held for municipal corporations and other corporations without a capital stock and hence no shares; the court's only reference to American law was a flawed inference from Angell and Ames (1832, 237). Kerbel was aware of Ratner's article but dismisses it, claiming that Ratner “forms part of a very limited minority,” without proffering evidence for that claim and without critiquing the article's substance.

share up to some limit, like five, ten, or fifty votes. About the same number (sixty-seven) provided for some prudent mean voting rule. Less than 3 percent (nine) explicitly stipulated one vote per person (Davis 1917, 323; Blandi 1934, 65–66; Cadman 1949, 307–11). Most of those were mutuals that had no shares upon which to base voting rights (Virginia 1788, 19–21). Of the early nation's 319 corporations, thirteen were mutuals, six of which stipulated one vote per member, two of which provided for one vote per policy, and five of which were silent on voting rules. It makes sense that voting in those mutuals would have been based on the one vote per member or per policy models. But would such a voting scheme have been the default for joint-stock corporations?

Evidence of Dunlavy's legal claim is inconclusive. The author of an important 1829 article noted that "it has long been perceived that the common law of corporations was not adequate to govern these numerous institutions" (Anon. 1829, 94). The authors of the earliest treatise of U.S. business corporation law did not discuss the issue directly. They did note, however, that "important changes, both silent and declaratory, have been made in this country as regards the law of private corporations" (Angell and Ames 1832, vii). In other words, British common law precedents did not always hold in America *de facto*, a point to which we shall return in the following regarding limited liability. It appears likely that when charters were silent on the issue of stockholder voting rights, the corporate bylaws would control. Some charters, especially earlier ones, made this quite explicit. Delaware, for example, empowered the directors of the Bank of Delaware to exercise "such powers, for the well-governing and ordering the said corporation, and the affairs and business thereof . . . as have been, or shall be fixed, described and determined by the rules, laws, regulations, and ordinances of the said corporation" (Delaware 1797, 1:236–39). Similarly, voting rules were explicitly established in the corporate bylaws of the Sixth Massachusetts Turnpike Corporation, chartered in June 1799. More generally, early jurists made it clear that "where the mode of electing corporate officers is not prescribed by charter, or immemorial usage, it may be wholly ordained by by-laws" (Angell and Ames 1832, 195).<sup>11</sup> Almost without exception, bylaws that were not contrary to the charter or the constitution or laws of the state of incorporation were valid (Davis 1917, 317).

In a corporation controlled by one or more large interests, minority shareholders could invoke other means of protection, including calling for third-party inquiries into the corporation's activities and depressing stock prices by voting with their feet, selling off their shares in one of the nation's numerous equities markets (Wright 2002; Wright et al. 2004; Dunlavy 2006,

11. See also Kent (1894, 2:294), who wrote: "If this be not done to the requisite extent in the act or charter creating the corporation, it is in the power of the corporation itself, by its by-laws, to regulate the manner of election, and the requisite proof of the qualifications of the electors, in conformity with the principles of the charter."

1:356). Regardless of voting rules, courts generally worked to assure that stockholder meetings and corporate elections were transparent and fair. They insisted, for instance, that meetings be adequately advertised, that quorums be achieved before binding decisions could be made, and that treasury stock (shares owned by the corporation itself) could not be voted (Dodd 1954, 67–70; Angell and Ames 1832, 69–71).

Moreover, minority stockholders did not need as much protection then as they do now because charters constrained the activities of early corporations or, to be more precise, their managers (Hovenkamp 1988, 1:664; Berle and Means 1932, 122), a point upheld by early case law (Dodd 1954, 42–43; Angell and Ames 1832, 60; Kent 1894, 2:299; Cadman 1949, 318–26). “If a company be formed . . . to supply water,” jurist James Kent explained, “the nature of their business does not raise a necessary implication that they should have power to make notes, and issue bills; and there must be express authority to enable them to do it” (Kent 1894, 2:300). So when the Potomack Company ran out of cash in 1799, it turned to its stockholders for ideas about how to raise more. When their ideas did not produce enough to finish an important series of locks, the managers suggested increasing the company’s capital by levying an additional \$100 on shares that were already fully paid in. Before they could do so, however, they had to win the consent of most shareholders, engineer a buyout of holdouts, and obtain legislative approval (Keith et al. 1799). Similarly, in October 1798, the stockholders of the Middlesex Canal met to consider whether “the *Directors* shall be authorized to hire *Money* to finish the *Canal* the year ensuing” (Middlesex Canal 1798). The directors of New York’s canal and lock companies, by contrast, thought nothing of mortgaging the completed parts of the works to raise cash to finish its route when stockholders proved reticent to pay for their shares quickly enough (Western and Northern Inland Lock Navigation Companies 1796, 6). While directors in some companies could borrow without the explicit approval of stockholders, corporations that offered additional shares (equity) for sale generally had to offer them to existing stockholders first, so stockholders could protect their pro rata equity and voting position if they wanted to (Angell and Ames 1832, 312–15; Berle and Means 1932, 123, 133).

Such restrictions on managerial discretion were important because, by the 1790s, U.S. capital markets were quite sophisticated. In 1794, for example, the Schuylkill and Susquehanna Canal Company issued a convertible preferred stock. Holders were to receive 6 percent per annum, payable quarterly, plus their proportionate share of any dividends paid to common stockholders. They also had the option of converting their preferred shares into common stock if the company issued more of the latter during the thirteen-year contract period (Anon. 1794). Rapacious managers (or majority stockholders) could have used such instruments to bilk investors. Charter restrictions, however, limited the scope of scams as did other requirements, such as that

any major change be approved by stockholders and that dividends be paid out of operating profit and not capital (Berle and Means 1932, 124, 135).

Stockholder activism also kept managers and majority stockholders in check. Stockholders in the 1790s did not spend all their waking hours monitoring their investments, but they were certainly more activist than investors were in the 1930s, when Adolf Berle and Gardiner Means complained that ownership and control had separated, that managers called the shots while rationally apathetic shareholders looked on (Wright et al. 2004; Berle and Means 1932, 76, 112–16). In 1800, for example, stockholders in the Hartford and New Haven Turnpike monitored management by appointing a committee of three men, Heman Swift, Epaphroditus Champion, and Jonathan O. Moseley, to inspect the road. The trio dutifully submitted a detailed forty-nine-point report urging the directors, due to the “immense importance” of the road, to make improvements like lowering all grades to at least 5 degrees, filling in low-lying areas, improving drainage, and building up walls and banks (Hartford and New Haven Turnpike Road Company 1800).

Dividend policies—the presumption was that profits would be paid to stockholders at regular intervals—also aided in governance by denying managers the means of undertaking self-serving or untoward activities (Davis 1917, 326). Because they were not supposed to be paid out of capital, only out of profits, dividends were also important pieces of information for stockholders and would-be investors (Cadman 1949, 320). Early stockholders could be very well informed about the status of the corporation if they wished to be. Full public disclosure was a product of the late twentieth century and was not obviously superior to the early form disclosure took, which was selective and private. In 1799, for example, the president and directors of the Potomack Company wrote stockholders a circular letter detailing the company’s accomplishments, challenges, operations, and financial situation. Tellingly, the directors noted that they thought it “incumbent” upon themselves to provide stockholders with accurate and timely information (Keith et al. 1799). It was indeed incumbent upon them to provide information to stockholders who requested it because they were clearly just the owners’ elected agents (Berle and Means 1932, 126). Stockholder rights to information were not unrestricted (especially in the case of banks) or uniform, but generally stockholders could view the corporation’s books at frequencies ranging from annually to continuously (Cadman 1949, 319).

Corporations could also go public with information if they wished. In 1792, Philip Schuyler, president of the Northern and Western Inland Lock Navigation Company, decided he had to publish the reasons that construction progress on the canal was slow (Schuyler 1793). A few years later, the company again went public with its troubles, though perhaps more to curry political favor than to attract additional private investment (Western and Northern Inland Lock Navigation Companies 1796). Early corporations also often published their charters and bylaws. The Bank of the United

States did so, for example, likely to show potential investors that the directors had constructed elaborate rules and regulations designed to keep shareholders safe and big dividends flowing (Bank of the United States [179?]). Numerous other companies did likewise.<sup>12</sup>

Because early stockholders usually asserted their rights as owners, many early directors were careful to keep their interests in mind when making important decisions. The directors of the Schuylkill and Susquehanna Company, for example, declined to enter into a contract with the state of Pennsylvania to build a canal around Conewago Falls because they thought the risk too high to impose on their stockholders. So instead they spun off a company specifically organized to do the work. And good thing, too, as the cost of the locks alone far surpassed the initial allowance (Anon. 1798a, 6–7; Western and Northern Inland Lock Navigation Companies 1796, 5–6; Davis 1917, 153).

None of this is to say that early directors were mere marionettes. They could, and did, push back when stockholders were obviously biased or just plain delusional. For example, Schuyler patiently explained to shareholders that it would not be prudent to run up expenses simply because the company's charter allowed it to make dividends of 15 percent "on all their expenditures." "This appears plausible in theory," he granted, "but may and probably will be found fallacious on actual experiment" because tolls (to wit, company revenues) would not be sufficient to pay such high dividends for many years. Tolls would have to be less than the cost of overland transportation, otherwise the river improvements "would have no beneficial object to the community" and the area's population, while growing, would not be sufficient to generate high revenue for some years. Maintenance expenses also had to be factored in, he noted. He concluded that completing the improvements "on a scale more extensive than what is indispensable [sic] necessary, would be injurious to the reputation of the company" by forcing it to charge high tolls. "It ought to be the invariable pursuit of the company," he opined, "so to conduct its operations as that its interests and those of the community may go hand in hand" (Anon. 1792, 15–16).

In the first few decades of the nineteenth century, some corporate managers discovered ways of circumventing the early corporate governance safe-

12. Examples include Bank of Rhode Island, Bank of the United States, Boston Marine Insurance Company, Company for Opening Inland Navigation between the Santee and Cooper Rivers, Conewago Canal Company, Insurance Company of North America, Kennebec Bridge, Lehigh Navigation Company, Locks and Canals Over Merrimack River, Manhattan Company, Massachusetts Fire Insurance Company, Massachusetts Mutual Fire Insurance Company, Massachusetts State Bank, Middlesex Canal, Mutual Assurance Company of the City of New York, Mutual Assurance Company of Philadelphia, Mutual Fire Insurance Company of Boston, New Hampshire Bank, Newport Insurance Company, New York Insurance Company, Providence Insurance Company, Providence Mutual Insurance Company, Salem Marine Insurance Company, Sixth Massachusetts Turnpike Company, Stamford Mutual Insurance Company, Susquehanna Canal, Warren Insurance Company, and Washington Insurance Company.

guards discussed in the preceding. Some economically disruptive financial panics and high-profile business failures resulted but so too did countermeasures that were effective at least for a time (Kamensky 2008; Hilt 2008, 2009). Maintaining close alignment of the incentives of stockholders, managers, and society remains a challenge to this day (Acharya and Richardson 2009). Nevertheless, then as now it appears that many more corporations succumbed to competitive pressures and recessions than to managerial malfeasance.<sup>13</sup>

### 7.3 The Benefits of Big

Big businesses suffered from internal agency problems, but, as discussed in the preceding, not intractable ones. Large size also brought big benefits, including market power (control over input costs and output prices), economies of scale (horizontal integration leading to the lower per unit costs typically associated with larger production facilities), and vertical integration (including more of the production and distribution process within the business, rather than purchasing inputs or distribution services in the market). Each strategy required that businesses grow to a large size relative to traditional firms. Although proprietorships and partnerships occasionally grew to great size, it was costly for them to do so. Proprietors had to generate equity capital themselves. They could borrow but usually only for short periods and rarely for more than a few years. Bonds and mortgages could run for decades, but after a year or two, they usually became callable, to the great risk of the borrower. Moreover, creditors frowned upon highly leveraged operations due to interest rate and, in this prelife insurance environment, mortality and morbidity risks. Unless they controlled their own banks, few entrepreneurs would or could venture big by borrowing or by using only their own funds and those of a few close compatriots (Lamoreaux 1994; Heath 1954, 322). Large size almost demanded incorporation. “The multiplication of corporations, and the avidity with which they are sought,” wrote Kent, “have arisen in consequence of the power which a large and consolidated capital gives them over business of every kind” (Kent 1894, 2:271–72).

Corporate market power sometimes flowed directly from government decree. More often, however, it stemmed from relative size and an early form of branding. The Beverly Cotton Manufactory, for example, obtained a trademark for its seal, which it affixed to its products like its soon famous Beverly corduroys (Davis 1917, 271–72). After the Bank of Alexandria organized and launched successful operations it appealed to the state legislature not for exclusive banking privileges in Northern Virginia but rather for an

13. More research in this area is warranted. Suffice it to say here that there were no major corporate governance failures until the few small banks described by Kamensky (2008).

increase of its capital and for the right to issue notes of less than \$5 denomination for the “convenience of the planters, farmers, and mechanics,” especially in “country places” where small change was often in short supply. Small notes earned seigniorage but also spread the bank’s name and fame far and wide (Herberts et al. 1793).

To attract large sums of capital, long-term or “locked in” debt and equity, entrepreneurs turned to the corporate form, which offered investors five major advantages over other types of organization (Blair 2003, 387–455; Hurst 1970, 44). First and foremost, corporations enjoyed perpetual succession (Williston 1888, 117; Kent 1894, 2:268). That did not mean that corporations were guaranteed to survive forever or even that their charters extended to the end of days. In fact, a few early corporate charters were perpetual, but most were limited to a specific number of years (Livermore 1935, 676–77; Angell and Ames 1832, 4, 501–14). Also, in most states, corporations could dissolve of their own accord (Angell and Ames 1832, 507–10). Rather, succession meant that shareholders and managers could come and go without forcing the dissolution of the enterprise, that “the body continues the same, notwithstanding the change of the individuals who compose it” (Maier 1993, 54; Angell and Ames 1832, 1, 21, 58–59). Succession provided a big advantage over partnerships, which had to dissolve and reform whenever a partner joined or left the firm. It was also advantageous in some lines of business where customers had to account for the mortality, morbidity, and credit risks posed by sole proprietors. During the 1790s, for example, incorporated marine insurance companies increasingly took market share away from old style brokers, making particularly rapid gains during the Quasi-War against France. Corporations were more likely to pay claims than individuals because they had larger capitals and were more robust in the face of shocks like yellow fever epidemics. Moreover, they proved just as good as individual underwriters at combating adverse selection and moral hazard, the two great banes of insurers (Kingston 2007).

Corporations were also afforded the presumption of state noninterference. Those that did not begin operations in a prompt manner could have their charters revoked by the government after due process. Sometimes charters explicitly specified how long the corporation had to begin operations; other times, the matter was left up to later negotiation (Angell and Ames 1832, 510–12; Kent 1894, 2:312; Davis 1917, 227). In no instance countenanced by early jurisprudence, however, could government capriciously seize, terminate, or substantially alter the charter of a business corporation unless it explicitly reserved the right to do so in the charter (Hovenkamp 1988, 1:659–60; Dodd 1954, 26–28; Angell and Ames 1832, 504; Kent 1894, 2:306). The glaring exception, Pennsylvania’s revocation of the Bank of North America’s charter, was never tested in court because the bank was satisfied to secure a new, albeit less generous, act of incorporation in 1787. Massachusetts took the less objectionable path of modifying the charter

of its first bank, the Massachusetts Bank, over time as it became clear that the original charter was not up to best practices (Dodd 1954, 201–2; Davis 1917, 43, 310–13).

Second, a corporation could also sue and be sued in its own name (Angell and Ames 1832, 207–36). (In the late eighteenth and early nineteenth century, corporation names were more flexible than today. As Angell and Ames noted, “the name of a corporation, frequently consists of several words, and the transposition, interpolation, omission, or alteration of some of them may make no essential difference in their sense” [Angell and Ames 1832, 55, 123].) Thanks to a New York Supreme Court decision in 1799, corporations could sue without exhibiting their charters or listing the names of shareholders (Angell and Ames 1832, 382). Subsequent jurists deftly dodged some legal niceties about the definition of “person” and “citizen” to ensure corporations close to full and equal access to federal courts and courts in states where the corporation was not domiciled (Dodd 1954, 35–41, 48–57). That made it cheaper for a corporation to collect debts owed to it than a similarly sized copartnership, which had to sue in the name of all partners. To sue or be sued the partnership needed the active participation of all the principals, which was often inconvenient and always costly. Partly for that reason, most early American partnerships had four or fewer members, usually all resident in the same city, and often related by birth or marriage.<sup>14</sup> All else constant, creditors also recovered debts from corporations more easily than they could from partnerships (Sylla and Wright 2003, 1:xii–lii).

Of course, all else was not always, or even usually, constant. Corporations were much more likely to extend limited liability to its owners than partnerships were. Limited liability, the third great advantage of the corporate form, ostensibly injured corporations’ ability to borrow but greatly aided its ability to attract equity financing (Manne 1967, 262; Baskin and Miranti 1997, 139). The unique structure of the primary or issuance market for shares constituted the fourth advantage of the corporate form, and the creation and perpetuation of active secondary markets in corporate equities was the fifth. All three receive more detailed discussion in the following.

### 7.3.1 Limited Liability and Entity Shielding

In only two cases, the Hamilton Manufacturing Society of New York and the Salem Iron Factory Company of Massachusetts, did early charters mandate full stockholder liability (Davis 1917, 279, 318). In the Maryland Insurance Company, stockholders were made proportionally liable for the corporation’s debts. (In other words, if a shareholder owned 10 percent of the outstanding shares when the company went bankrupt, he or she would have to pay 10 percent of any of its debts remaining unpaid after its assets

14. “It is uncommon for a partnership to consist of more than three or four individuals; two is the most usual number” (Anon. 1829, 110). See also Hilt and O’Banion (2009).

had been liquidated.) In their classic article on the origins of the business corporation, Oscar and Mary Handlin baldly assert that corporate charters by default mandated full stockholder liability. In other words, unless a charter explicitly provided otherwise, in the event of corporate bankruptcy, creditors could recover all they were due from any stockholder or stockholders. Because most early charters did not contain an explicit clause limiting shareholder liability (Blandi 1934, 39; Cadman 1949, 327), sixteen expressly provided unqualified limited liability for shareholders, while another sixteen imposed full liability on directors or shareholders only if certain financial ratios were exceeded, the Handlins reasoned, limited liability must have been of only “slight importance” to early stockholders (Handlin and Handlin 1945, 8–10).

More recent research questions the Handlins’ analysis. According to the new view, stockholder liability in the early United States was limited *de facto*. In other words, unless explicitly altered by statute, investors and observers widely considered shareholder liability to be limited to the par value of the stock owned by each (Arner 2002, 53–56; Dodd 1954, 66, 84–93; Perkins 1994, 373–76; Moss 2002, 59; Heath 1954, 316; Anon. 1829, 104). Bank historian Bray Hammond (1957, 654) put it best when he wrote: “The exemption of stockholders from personal liability became established in subterranean fashion with almost no formal advocacy and with very little formal recognition.” Contemporaries also understood that, unless their charters explicitly provided otherwise, corporations could not assess stockholders for more than the par value of their shares so liability for solvent corporations was inherently limited (Angell and Ames 1832, 302–3). Moreover, the Handlins themselves admitted that whatever its legal status, liability was not tested in the courts because most early corporations did not impose losses on creditors (Handlin and Handlin, 1945, 16–17; Hurst 1970, 51; Davis 1917, 294). Legal scholar Edwin Dodd (1954, 12) concurred, noting that reported case law on corporations in America prior to 1800 was extremely scanty. After several corporations failed following the War of 1812, courts finally definitively ruled that absent an explicit charter clause to the contrary, the limited liability of stockholders was assumed. Thereafter, limited liability clearly became ensconced in the American corporate scene. In Massachusetts, Georgia, and some other states, however, double, treble, proportional, and even full liability for shareholders in certain types of corporations, sometimes banks but more often mining and manufacturing companies, was often explicitly mandated (Hovenkamp 1988, 1:651–56; Howard 1938; Livermore 1935; Dodd 1954, 364–437; Angell and Ames 1832, 357–64; Cadman 1949, 325; Heath 1954, 316–21; Anon. 1829, 95–102).

Evidence supporting the new view of *de facto* limited liability in the 1790s abounds. When commenting on the repeal of the charter of the Bank of North America, Robert Whitehill noted that he was “not surprised” the stockholders were “so solicitous to procure another charter for the bank.

While it has no charter, their private circumstances are liable to account for any deficiencies” (Anon. 1786a, 3:95). The Bank apparently agreed, obtaining a charter from Delaware, just in case (Baldwin 1903, 459; Davis 1917, 11, 43). Before it received the official sanction of the state, the Bank of New York had some difficulties attracting investors who feared that they could be held personally responsible for the bank’s debts should it fail.<sup>15</sup> In 1793, “Mercator” argued against the incorporation of a marine insurer on the grounds that the stockholders would receive limited liability, a gift that would provide it unfair advantage over individual underwriters. America’s earliest corporate law treatise unequivocally stated that “no rule of law” was “better settled, than that, in general, the individual members of a private corporate body are not liable for the debts, either in their persons or in their property, beyond the amount of property which they have in the stock” (Angell and Ames 1832, 349). Adam Smith also unequivocally noted that in partnerships “each partner is bound for the debts contracted by the company to the whole extent of his fortune,” but in a joint-stock corporation “each partner is bound only to the extent of his share” (Smith 1937, 699). “The estate and rights of a corporation belong so completely to the body,” a nineteenth-century commentator argued, “that none of the individuals who compose it can dispose of any part of them.” Therefore, the commentator continued, “what is due to the corporation is not due to any of the individuals who compose it, and *vice versa*” (Glenn 1846, 511).

Early widespread adoption of limited liability (*de facto* or *de jure*) helped the U.S. economy to steer clear of a trap that ensnared the British economy in the latter half of the nineteenth century. Corporate creditors disliked limited liability because it limited the pool of income and assets from which they could demand repayment. They responded by insisting that directors or prominent shareholders pledge their personal estates as well or by charging a risk premium on corporate bonds. In the United States, most corporate shareholders enjoyed *de facto* limited liability, so those who wished to lend to American corporations had little recourse. Competition among lenders kept risk premiums or demands for personal collateral low; there was no presumption that a company with limited liability was weak. In Great Britain, by contrast, corporations could choose their liability status. Higher quality firms typically chose full liability, while lower quality ones typically chose limited liability, or so bond investors widely believed. Full liability corporations, therefore, found it much cheaper to borrow than limited liability ones did, inducing many firms to maintain their full liability status and raising the cost of capital for others, whether justly or not. That may explain in part why Britain’s economy lagged behind that of the United States and other

15. Alexander Hamilton’s attempt to build limited liability into the bank’s articles of association was never tested because the bank never failed. In fact, it still operates today.

countries where limited liability developed and proliferated more rapidly (Nosal and Smart 2007).

Scholars sometimes argue that limited liability merely transferred risk to creditors. It certainly did; that was the point. Those scholars go too far, however, when they conclude that limited liability was inconsequential. It actually reduced risk. Lenders and other creditors were senior to stockholders and their liability, as it were, was always limited to the amount of their loan. In other words, in case of default or bankruptcy, they had first dibs on the corporation's assets and had no fear of being called on for more. With full liability, each shareholder had to worry about paying all of the corporation's debts, however remote that possibility might be. Buying a share with full liability was a bit like buying a lottery ticket where one might by chance draw the obligation of paying off the winner! Not many people would prize such a dubious opportunity (Anon. 1829, 105–7, 115–16). Limited liability leveled the playing field. Stockholders were still junior; they bore the residual risk of bankruptcy. With limited liability, however, they no longer had to factor in the probability of losing all their assets. That undoubtedly had a large, positive impact on share demand and liquidity, lowering the cost of equity capital (Angell and Ames 1832, 23–24, 371–72). Limited liability was, therefore, a Pareto improvement because it made some groups better off (stockholders, the corporation itself) while rendering no one worse off (because creditors were free to increase the cost of credit to reflect limited liability).<sup>16</sup>

Limited liability protected shareholders when a corporation failed. Entity shielding, by contrast, protected the corporation from the bankruptcy of one or more of its stockholders and, by extension, protected shareholders from each other. Thanks to entity shielding, neither the corporation nor its shareholders needed to know or care about the identity of its investors. That, in turn, allowed corporations to accept anyone who bought their stock without vote or cavil (Angell and Ames 1832, 62, 239). That, of course, increased the liquidity of equities and hence demand for them both at the time of issuance (the primary market) and thereafter (the secondary market). Partnerships also enjoyed some entity shielding, but the corporate shield was much more robust (Hansmann, Kraakman, and Squire 2006; Bodenhorn 2006).

### 7.3.2 Primary Markets

Most early U.S. corporations were start-ups, new companies with little or no operational history (Davis 1917, 33). Early corporate entrepreneurs were able to go public before beginning operations for four reasons. First, even the nation's largest cities were geographically and socially compact. Entre-

16. The only exception would be involuntary creditors, like tort victims, but such cases were rare in the eighteenth and early nineteenth centuries. They are more common today but are probably best handled through other, possibly government-sponsored, means (Moss 2002, 74–75, 81, 84).

preneurs and potential investors knew each other, often quite well, or at least knew of each other. In fact, most early corporate securities sales were direct public offerings (DPOs) rather than initial public offerings (IPOs). In other words, corporations sold securities directly to the public, not via investment banks. To do so, they advertised the time and place of subscription, and sometimes their general business plans, by word of mouth, broadsides, and newspaper advertisements.<sup>17</sup>

Second, DPOs were largely unregulated, allowing entrepreneurs to engage in selective disclosure, as in private placements today. Selective disclosure mitigated one of the major costs of full disclosure public offerings. Some investors could learn important details of the business plan while others, suspected competitors, were told little, perhaps only the names of the people who had already subscribed (Manne 1967, 260). Entrepreneurs were loath to withhold that information because a list of good names could jumpstart demand as smaller investors looked to follow the “smart” money. “From the respectability of the characters who already subscribed,” a New York paper noted of a 1792 canal DPO, “we have reason to congratulate our fellow-citizens in the prospect of the respective subscriptions being speedily and substantially filled.” The paper was a little too sanguine but the number of subscriptions did jump despite the monetary stringency caused by the Panic of 1792 (Davis 1917, 160–63).

Third, a culture of activist corporate governance, prudent mean stockholder voting rules, and legal restrictions against corporate activities that served to mitigate agency problems protected the rights of minority stockholders. Early corporations clearly wanted, and needed, all of the equity investment they could get. Strong protection of the rights of small stockholders, many of whom were women, minors, and men of middling means, was, therefore, paramount.<sup>18</sup>

Fourth, early U.S. corporations in their DPOs typically sold *de facto* call options on shares rather than the shares themselves (Dodd 1954, 74). Subscribers initially made a down payment, as low as a dollar or two per share. The Bank of Rhode Island, for example, took at subscription just \$5 for every \$200 par value share (Rhode-Island Bank 1795, 2). After the company organized, corporate officers called in all or part of the par value of the share in installments. The \$10, \$25, \$50, \$100, or \$1,000 par value per share was not fully paid in until some weeks, months, or years after the corporation began business, giving investors some idea of its operations before they were “all in.” The Middlesex Canal, for example, called in its capital stock in

17. For examples of printed advertisements of general business plans, see Anon. [1782?]; Thomson and Morris (1781); Anon. (1799, 19–20). For an example of personal solicitation of stock, see Appleton (1858, 8).

18. “A corporation may consist of both men and women, provided, its institution is not repugnant to the condition and modesty of women” (Angell and Ames 1832, 51, n1). See also Wright (2000, 2002, 2008).

100 different assessments ranging from \$2.50 to \$10 per share (Davis 1917, 172). Subscribers usually could walk away by selling their options to other investors.<sup>19</sup> The most (in)famous of these markets for “scrip” was that of the Bank of the United States. The *subscription* in any joint-stock corporation was tradable but not necessarily easily so if money market conditions tightened or the company faced operational difficulties (Davis 1917, 52, 60–61, 80). If no buyer could be found, subscribers generally could forfeit their shares (Angell and Ames 1832, 327). Directors had considerable discretion regarding when and if they called for installments and what happened to shareholders who did not pay up. The directors of the Charles River Bridge, for example, gave fifteen days’ grace after which it levied interest at “Five per Cent. per Month.” After four months, unpaid shares “and all the Monies he has before advanced” were forfeited to the corporation (Austin 1785). It was extremely difficult, however, for corporations to force subscribers to pay for their shares, hence the *de facto* call option nature of the obligation (Angell and Ames 1832, 293–302).

Unincorporated joint-stock associations selling *de facto* options faced legal barriers. They could not sue delinquent members because courts saw them as both a plaintiff and a defendant; members could voluntarily withdraw from the association (Dodd 1954, 66, 80). Chartered companies, by contrast, could and did sue subscribers who missed installment payments on their shares when they formally agreed to pay all their installments on time or suffer explicit penalties (Dodd 1954, 65–66). When faced by a mass defection of stockholders, the Delaware and Schuylkill Canal Company asked the courts to enforce just such an agreement. The directors and leading stockholders (presumably those who had fully paid up) argued that share forfeiture would not serve the company because its works were already well underway. “All those immense sums of money, already advanced will be totally lost,” they argued, “and the wreck of the canal, exhibit a lasting monument of folly; and even prevent other enterprises worthy of great minds.” They seemed to worry about their ability to collect, however, so they also argued that if delinquent stockholders would only examine the canal’s affairs they would see that the investment was still solid (Anon. 1800a, 8). When some still refused to pay, Pennsylvania courts upheld forfeiture of shares purchased in the secondary market and fines for original subscribers (Dodd 1954, 75–76; Angell and Ames 1832, 310). Similarly, work on an early New York canal halted when stockholders failed to meet directors’ calls “either because they had not the means to supply such advances, or from an apprehension of the impracticability of succeeding in the operation.” An

19. See, for example, the stock transfer ledgers of the Upper Appomattox Company, Virginia Historical Society, especially the transfer from John Hurt to Henry Moss on 20 May 1797 and the transfer from Thomas Read to John Haskins on 15 January 1803.

infusion of government funds bolstered confidence in the project, however, and the canal was eventually completed (Western and Northern Inland Lock Navigation Companies 1796, 3).

Assured that they could sell their shares for a fair market price whenever they needed to, early Americans usually purchased share options in DPOs with alacrity, providing corporations with the equity capital that they needed to commence and continue large scale operations (Davis 1917, *passim*).

### 7.3.3 Secondary Markets

Liquidity of ownership stakes was another advantage because it allowed stockholders to increase, decrease, or maintain their holdings in specific enterprises as they saw fit and to borrow money by posting shares as collateral (Manne 1967, 264; Heath 1954, 319, 322). Liquidity also provided stockholders with the opportunity to “vote with their feet.” Selling out freed individual investors from situations they did not like and, if enough shareholders felt similarly, decreased share prices and hence the cost of takeover by a new control group (Manne 1967, 265–66). Most judges realized this and generally used the power of the bench to ensure the full and easy transferability of corporate shares (Banner 1998, 230–36; Dodd 1954, 114–20; Angell and Ames 1832, 316–48). Thanks to those rules, equities of major corporations, including the Bank of the United States, traded in European capital markets like London (Angell and Ames 1832, 326; Sylla, Wilson, and Wright 2006). Courts also made it relatively easy for people to hypothecate equities or, in other words, to use them as collateral for loans.

Corporate securities ownership was not limited to the rich, or even the well-to-do. Many people of middling means bought a share or two in local banks, turnpikes, and other corporate enterprises (Baldwin 1903, 463; Banner 1998, 129–30). Most early U.S. corporations had scores or hundreds, rather than just a few shareholders. Ninety-one different people invested in the Charles River Bridge in 1785; fifty different people purchased the 120 shares offered in the Malden Bridge Company in 1787 (Charles River Bridge Company 1785; Anon. 1787b). At one point in the 1790s, 309 different entities, mostly individuals but also a few corporations, partnerships, and non-profit organizations, owned shares in the Bank of Pennsylvania (Bank of Pennsylvania [179?]).

In a few cases, surviving corporate records allow us to detail changes in stock ownership (Wright 2002; Davis 1917, 300). In other cases, the existence of liquid secondary markets can be inferred with confidence from the regular publication of stock prices in contemporary newspapers (Sylla, Wilson, and Wright n.d.). Finally, we know from the large size and frequent trading of U.S. government bonds that the financial infrastructure requisite to trade any corporate security—brokers, dealers, exchanges, and the like—were in place by the early 1790s (Wright 2008; Wright n.d.).

## 7.4 Corporations and Economic Growth

A vigorous spirit of enterprise was not unknown in colonial America (Doerflinger 1986), but it was much more muted and limited than the spirit of entrepreneurship that swept the nation, including even agrarian Virginia, after passage of the Constitution (Crothers 1999). Part of the spirit stemmed from the realization that Americans needed services, particularly financial ones, no longer easily available from Britain (Dodd 1954, 196–97). Another part arose from the improved protection of property rights afforded under the Constitution (Wright 2008). Much of the new entrepreneurial spirit gravitated toward relatively large scale projects. “Not until the new government under our present Constitution came into active operation in the spring of 1789,” wrote historian Simeon Baldwin (1903, 449–50) over a century ago, “was a fair field open for the permanent investment of capital in large operations with the assurance of safety as could command general public confidence.”

Some large scale enterprises could be successfully undertaken without creating a corporation. Not all toll bridges were owned and operated by corporations, for example. Numerous bridges in Virginia were owned and operated by proprietorships or partnerships. In New Jersey in 1791, the government auctioned off the right to build bridges and collect tolls over the Passaic and Hackensack rivers to the highest bidder, the person or firm that would accept the shortest lease period (Tuthill 1791). Interestingly, however, some of those firms later incorporated and New Jersey later chartered numerous bridge companies (Davis 1917, 207; Cadman 1949, 44–45). Similarly, a small group of entrepreneurs in South Carolina discovered it was far too expensive for them to clear Pine Tree Creek as thoroughly as they hoped. In order to finish the project, they prayed to be incorporated so that investors could be “admitted upon equal and safe terms.” The legislature agreed, giving rise to the Pine Tree Creek Navigation Company in late 1797 (South Carolina 1797, 129–32). Entrepreneurs heading up larger enterprises, including larger bridges and river improvements, knew from the start that they needed to incorporate in order to attract enough long-term capital to make a go of it. Without the corporate form, entrepreneurs would have been forced to find more costly ways of raising capital or to forego larger or riskier projects completely.

Entrepreneurs did not generally risk their time, reputation, fortunes, and, in an age of debtors’ prisons, their freedom, without the prospect of considerable gain. Large projects held out two inducements to early entrepreneurs, market power and scale economies, which combined spelled the opportunity for large profits (high prices coupled with low costs). While entrepreneurs struggled to grow rich, Adam Smith’s invisible hand took over, rendering their selfish greed socially beneficial as they created new technologies, developed new industries, and made production processes more efficient. Taking

a broader view, the rise of the corporation nation helped to ensure that the United States developed and maintained a system of “good capitalism,” a healthy mix of smaller startups and efficient, well-established industrial giants. While not without its flaws, such a system is far better for economic growth, and hence individuals and their governments, than the various forms of “bad capitalism” that flourished elsewhere (Baumol, Litan, and Schramm 2007).

Modern management is generally considered a product of the second half of the nineteenth century. That may be true, but already by the 1790s, corporate managers were learning how to run large enterprises efficiently (Cochran 1974), some by applying experience gained on the larger plantations and manors (Kamoie 2007, 136–40). After some initial difficulties, banks by 1800 were generally very well managed (Davis 1917, 34–108; Bodenhorn 2000, 2002). Less is known about the management of insurance companies, but there is little reason to question their competence (Davis 1917, 231–46). They were astute enough, for example, to urge state and local governments to construct lighthouses, install navigation buoys, and pass basic fire safety legislation (U.S. Treasury Department 1798). Bankers and insurers made mistakes to be sure, but anyone conversant with recent events knows that they remain far from infallible (Acharya and Richardson 2009).

Canals and turnpikes were often completed late and over budget, but that is not uncommon even today (LePatner, Jacobson, and Wright 2007). Early canal and turnpike companies often made a hash of things for two main reasons. First, large-scale construction experts, particularly experienced engineers, were few. At least two of those who emigrated from Europe, John Senf and Pierre L’Enfant, were more like artsy architects than solid civil engineers (Davis 1917, 144–45; Wright 2010). Second, laborers, even the unskilled, were expensive and uppity, and supervision was often lax (Davis 1917, 126). Even though they paid efficiency wages, the Potomac Company found that its laborers manifested a “turbulent and insubordinate spirit” so strong that “the work that was directed to be done was either entirely omitted or but partially performed.” Attempts to bolster the labor force with indentured servants and slaves backfired as tensions between the three types of laborers mounted and many servants fled. Gunpowder began to go missing and neighbors complained of ill treatment (Davis 1917, 127–28). Conditions eventually improved on that and other projects but labor-management difficulties persisted.<sup>20</sup>

When things got tough, early American managers tended to squabble

20. Some readers, especially those of a theoretical bent, may wonder how a firm could pay efficiency wages but still end up with unwilling workers. The key, of course, was poor management. Workers, like other people, will try to get away with as much as possible. If managers are unable or unwilling to monitor workers and fire shirkers, the wage level will be immaterial to worker productivity.

amongst themselves rather than work together to fix the problem. On the Potomac Canal, for example, the assistant managers regularly bickered, quarreled, and hurled insults at each other in an apparent attempt to curry favor with the company's directors (Davis 1917, 129–30). Early managers usually learned on the job, but they did learn. Instead of repeating the woes of the Potomac Company, the James River Company used slaves exclusively or contracted jobs out to smaller firms (Davis 1917, 137–40).

Cost-estimation techniques, though still primitive by later standards, also improved with experience. The Cooper and Santee River canal in South Carolina ended up costing three times its original estimate (Davis 1917, 146). Such overruns prompted one early observer to advise doubling engineer estimates “in order to provide against contingencies” (Anon. 1798a, 7). Another committee explained that “in works of this kind [canal construction] where many men are employed, worthless characters will introduce themselves notwithstanding every attention to prevent it; accidents will intervene, tending to retard the business.” It, therefore, padded its cost estimate of £72,350 by £7,650, which was a little more than the 10 percent padding suggested by experienced British engineer William Weston (Western and Northern Inland Lock Navigation Companies 1796, 20). Perhaps more important, the committee noted that tolls would be less than the “market rate of interest” (approximately 7 percent) on £80,000 so “the Stockholders will be sufferers” unless the legislature cut the company some slack regarding the width and depth of the canal (Northern Inland Lock Navigation Company 1792, 12–14). Architects also warned of massive cost overruns, “especially in buildings of a public nature” (Kamensky 2008, 108).

Early directors had some idea about how to keep expenses down. A committee of the Western Inland Lock Navigation Company, for example, realized that it needed to delegate considerable operational power to a single strong manager, someone who could engage in comprehensive planning so “that supplies may be prepared, without incurring that extra expence which ever attends collections made on the spur of the occasion.” “To find such a character,” the committee admitted, “is certainly not very easy” but at least they were looking (Schuyler 1792, 19; Davis 1917, 162–63). The Middlesex Canal Company apparently found one because its extensive works—over twenty-seven miles of canal, twenty locks, seven aqueducts, and over two score bridges—came in only slightly over budget, despite the fact that like many early canals it at first built economically inefficient wooden locks instead of more expensive but much more durable stone ones (Davis 1917, 172–73).

After much time and expense, some canal companies eventually got the job done, bestowing the benefits of cheaper and faster transportation to the farmer, merchant, and manufacturer alike. By 1799, for example, the Potomac Company had made it possible for boats laden with 100 barrels of

flour to navigate the Potomac River from George's Creek to the tidewater with only a single portage around the Great Falls (Keith et al. 1799). The canal at Conewago Falls in Pennsylvania also worked well when finally completed, reducing the amount of time it took to negotiate the falls fully laden from many hours and dollars to about a half an hour (Anon. 1798a, 6–7; Western and Northern Inland Lock Navigation Companies 1796, 5–6). By 1800, the James River Company had improved the navigation of its namesake some forty-five miles. By 1816, that figure had grown to 300 miles, at the cost of only \$1,200 per mile, a figure low enough to allow it to pay handsome dividends (Davis 1917, 139–40). From South Carolina to Massachusetts, other canals, most owned and operated by corporations, eventually opened for business, greatly aiding the size and efficiency of local and regional markets (Rothenberg 1992).

Bridges usually fared quite well. Even the large ones typically constructed by corporations were easy to build and manage relative to canals. (Smaller ones were handled by local road crews, individual proprietors, turnpikes, and so forth.) Damaging floods and ice were their biggest foes. Like canals, bridges aided the economy and improved market efficiency by lowering transaction costs. Far better to traverse a bridge than to ford an icy river or wait for the ferryman, especially along important thoroughfares like the York road that connected Manhattan to Philadelphia via New Jersey (Davis 1917, 186–215).

Far better, too, to travel a well kempt turnpike than rutty local roads. Larger and more difficult to construct and keep in good repair than bridges but easier to build and maintain than canals, turnpikes not surprisingly generally suffered more financial, engineering, labor, and other problems than bridges but fewer than canals. Most new turnpikes successfully raised cash via DPOs, completed their roads, and remained in business for decades. Some were financially successful, but many found it difficult to collect enough tolls to cover the cost of road repair and gatekeepers (Davis 1917, 216–27, 292–93).

Some early manufacturers also struggled. Management and labor difficulties plagued the Society for the Establishment of Useful Manufacturers, for example, eventually bringing it to its financial knees. But it later recovered and other manufacturers got on well from the start. America in 1800 was still a nation of farms and plantations, but industrial output was growing fast and would continue to do so throughout the nineteenth century (Davis 2004). Many manufacturing concerns were still small, ranging from a corner of a farmhouse with a spinning wheel or a small nail forge to a mill employing a dozen hands. Much of the *growth* in manufacturing, however, was aided by corporations (Davis 1917, 255–82). Growth in other modern sectors, including mining, transportation, and financial services, was also largely attributable to the net benefits entrepreneurs discovered,

laying mostly latent, in a hoary institution inherited from the old world.<sup>21</sup> By 1801, thousands of entrepreneurs interested in pursuing relatively complex, large-scale, and long-term projects found that the benefits of the corporate form outweighed the costs of obtaining a charter and aligning the incentives of stockholders, employees, and other stakeholders. By the Civil War, over 100,000 more calculated likewise. Some corporations sputtered and failed but others created the machines, transportation networks, and financial and other services that ultimately transformed the U.S. economy into the world's largest and most dynamic.

## References

- Acharya, Viral, and Matthew Richardson. 2009. *Restoring financial stability: How to repair a failed system*. Hoboken, NJ: John Wiley and Sons.
- A Farmer. 1792. *Five letters addressed to the yeomanry of the United States*. Philadelphia: Eleazar Oswald.
- Angell, Joseph, and Samuel Ames. 1832. *A treatise on the law of private corporations aggregate*. Boston: Hilliard, Gray, Little & Wilkins.
- An Inhabitant. 1796. That a monopoly is baneful cannot be controverted. *New York Minerva*, September 15.
- Anon. 1764. *Whereas the number of poor*. Philadelphia: n.p.
- Anon. 1780. *The history of the origin, rise, and progress of the war in America between Great Britain and her colonies*. Boston: Thomas and John Fleet.
- Anon. [1782?] *Proposals for a Bank*. Boston: n.p.
- Anon. 1785. *Remarks on a pamphlet entitled "Considerations on the Bank of North America"*. Philadelphia: John Steele.
- Anon. 1786a. Friday, March 31, 1786, A.M. *Pennsylvania Evening Herald*, April 15.
- Anon. 1786b. General Assembly, Friday, March 31, 1786, A.M. *Pennsylvania Evening Herald*, April 19.
- Anon. 1786c. Philadelphia, December 28. Conclusion of the debates in the General Assembly the 13th inst. on the subject of chartering the Bank of North America. *Pennsylvania Packet*, December 28.
- Anon. 1787a. Albany, June 14. *New Hampshire Mercury*, June 28.
- Anon. 1787b. *Subscribers to Malden-Bridge*. Boston: n.p.
- Anon. 1790. *Minutes of the grand committee of the whole convention of the Commonwealth of Pennsylvania*. Philadelphia: Zachariah Poulson Jr.
- Anon. 1791a. *Of commerce and luxury*. Philadelphia: T. Lang.
- Anon. 1791b. USA Congress, House of Representatives, Tuesday, February 1. *Gazette of the United States*, February 19.
- Anon. 1792. *The report of a committee appointed to explore the western waters in the state of New York*. Albany: Barber and Southwick.
- Anon. 1793. Branch bank. *Boston Independent Chronicle*, January 10.
- Anon. 1794. *Plan for raising by loan a sum of money*. Philadelphia: n.p.

21. Micklethwait and Wooldridge (2003) miss America's crucial contribution to corporation formation and proliferation. Contemporary foreigner observers, by contrast, knew that America was the original corporation nation (Murat 1833, 337–38).

- Anon. 1796. *A letter to certain bank directors, from a merchant*. Philadelphia: n.p.
- Anon. 1798a. *Account of the Conewago Canal, on the river Susquehanna*. Philadelphia: Whitehall Press.
- Anon. 1798b. *Transactions of the Society . . . for the Promotion of Agriculture, Arts, and Manufactures*. Albany, NY: Loring Andrews.
- Anon. 1799. *By laws of the Sixth Massachusetts Turnpike Corporation, for establishing a turnpike road, from Amherst to Shrewsbury*. Worcester, MA: Mower & Greenleaf.
- Anon. 1800a. *Extracts from the resolutions of the stockholders of the Delaware and Schuylkill Canal Navigation*. Philadelphia: n.p.
- Anon. 1800b. New York, February 15. *Greenleaf's New York Journal*, February 15.
- Anon. 1804a. *Observations on the principles and operation of banking with strictures on the opposition to the Bank of Philadelphia*. Philadelphia: Helmbold.
- Anon. 1804b. *To the honourable, the legislature of the state of New York, in Senate and Assembly convened. The memorial of the subscribers, merchants, tradesmen, and inhabitants of the City of New York*. [New York?]: n.p.
- Anon. 1827. *Letter on the use and abuse of corporations*. New York: C & G Carvill.
- Anon. 1829. Manufacturing corporations. *American Jurist* 3:92–118.
- Anon. 1835. *What is a monopoly? Or some considerations upon the subject of corporations and currency*. New York: George P. Scott.
- A Philadelphia Merchant. 1790. To the editor of the *Federal Gazette*. *Philadelphia Federal Gazette*, March 30.
- A Plain Dealer. 1786. Philadelphia, September 7, 1786, Mr. Printer. *Pennsylvania Mercury*, September 15.
- Appleton, Nathan. 1858. *Introduction of the power loom and origin of Lowell*. Lowell, MA: B. H. Penhallow.
- Arner, Douglas. 2002. Development of the American law of corporations to 1832. *SMU Law Review* 55:23–57.
- Austin, John Jr. 1785. *Charles River Bridge*. [Boston?]: n.p.
- Baker. 1756. *A vindication of the case of the corporations of bakers*. Dublin: A. McCulloh.
- Baldwin, Simeon E. 1903. American business corporations before 1789. *American Historical Review* 8:449–65.
- Bank of Pennsylvania. [179?] *List of stockholders*. Philadelphia: E. Oswald.
- Bank of the United States. [179?] *The acts of incorporation, bye-laws, rules and regulations of the Bank of the United States*. n.p.
- Banner, Stuart. 1998. *Anglo-American securities regulation: Cultural and political roots, 1690–1860*. New York: Cambridge University Press.
- [Bard, William?]. [1835?] *An inquiry into the nature and utility of corporations, addressed to the farmers, mechanics, and laboring men of Connecticut*. [New York?]: n.p.
- Barnes, Joseph. 1792. *Treatise on the justice, policy, and utility of establishing an effectual system for promoting the progress of useful arts, by assuring property in the products of genius*. Philadelphia: Francis Bailey.
- Baskin, Jonathan, and Paul Miranti. 1997. *A history of corporate finance*. New York: Cambridge University Press.
- Bateman, Fred, and Thomas Weiss. 1981. *A deplorable scarcity: The failure of industrialization in the slave economy*. Chapel Hill, NC: University of North Carolina Press.
- Baumol, Will, Robert Litan, and Carl Schramm. 2007. *Good capitalism, bad capitalism, and the economics of growth and prosperity*. New Haven, CT: Yale University Press.

- Berle, Adolf, and Gardiner Means. 1932. *The modern corporation and private property*. New York: Harcourt Brace.
- Blair, Margaret. 2003. Locking in capital: What corporate law achieved for business organizers in the 19th Century. *UCLA Law Review* 51:387–455.
- Blandi, Joseph. 1934. *Maryland business corporations, 1783–1852*. Baltimore, MD: Johns Hopkins Press.
- Bodenhorn, Howard. 2000. *A history of banking in antebellum America: Financial markets and economic development in an era of nation-building*. New York: Cambridge University Press.
- . 2002. *State banking in early America: A new economic history*. New York: Oxford University Press.
- . 2006. Partnership, entity shielding and bank credit. Clemson University. Working Paper.
- Bonney, Charles C. 1857. *Speech of Charles C. Bonney, of Peoria, against an act entitled an act to incorporate the Illinois River Improvement Company*. St. Louis: n.p.
- Cadman, John. 1949. *The corporation in New Jersey: Business and politics, 1791–1875*. Cambridge, MA: Harvard University Press.
- Caplan, Bryan. 2007. *The myth of the rational voter: Why democracies choose bad policies*. Princeton, NJ: Princeton University Press.
- Charles River Bridge Company. 1785. At a meeting of the proprietors. Boston: n.p.
- Chipman, Nathaniel. 1793. *Sketches of the principles of government*. Rutland, VT: J. Lyon.
- Citizens. 1792. *To the honorable the legislature*. [Richmond, VA?]: n.p.
- Cochran, Thomas. 1974. The business revolution. *American Historical Review* 79 (1): 449–66.
- Coxe, Tench. 1786. *Thoughts concerning the Bank of North America*. Philadelphia: n.p.
- . 1792. *Reflexions on the State of the Union*. Philadelphia: Mathew Carey.
- Crothers, A. Glenn. 1999. Banks and economic development in post-Revolutionary northern Virginia, 1790–1812. *Business History Review* 73:1–39.
- Davis, Joseph H. 2004. An annual index of U.S. industrial production, 1790–1915. *Quarterly Journal of Economics* 119 (1): 177–215.
- Davis, Joseph S. 1917. *Eighteenth century business corporations in the United States*. Cambridge, MA: Harvard University Press.
- Delaware. 1797. *Laws of the State of Delaware*. New Castle, DE: Samuel and John Adams.
- Dodd, Edwin Merrick. 1954. *American business corporations until 1860, with special reference to Massachusetts*. Cambridge, MA: Harvard University Press.
- Doerflinger, Thomas. 1986. *A vigorous spirit of enterprise: Merchants and economic development in revolutionary Philadelphia*. Chapel Hill, NC: University of North Carolina.
- Donoghue, Bernard. 1964. *British politics and the American Revolution: The path to war, 1773–75*. London: Macmillan.
- Dreikorn, Wilbur. 1949. The history and development of banking in New Jersey. MA thesis, Rutgers-ABA.
- Duer, William Alexander. 1819. *A reply to Mr. Colden's vindication of the steam-boat monopoly*. Albany: E. and E. Hosford.
- Dunlavy, Colleen. 2004. From citizens to plutocrats: Nineteenth-century shareholder voting rights and theories of the corporation. In *Constructing corporate America: History, politics, culture*, ed. Kenneth Lipartito and David Sicilia, 66–93. New York: Oxford University Press.

- . 2006. Social conceptions of the corporation: Insights from the history of shareholder voting rights. *Washington and Lee Law Review* 63 (1): 347–88.
- Ellsworth, Lucius. 1972. Craft to national industry in the nineteenth century: A case study of the transformation of the New York State tanning industry. *Journal of Economic History* 32:399–402.
- Evans, George Jr. 1948. *Business incorporations in the United States, 1800–1943*. New York: National Bureau of Economic Research, no. 49.
- Findley, William. 1794. *A review of the revenue system adopted by the first Congress under the Federal Constitution*. Philadelphia: T. Dobson.
- Franklin, Benjamin. 1794. *The life of Dr. Benjamin Franklin, written by himself*. Philadelphia: Benjamin Johnson.
- Glenn, S. F. 1846. Corporations. *DeBow's Review*.
- Gower, L. C. B. 1956. Some contrasts between British and American corporation law. *Harvard Law Review* 69:1369–1402.
- Gunn, L. Ray. 1988. *The decline of public authority: Public economic policy and political development in New York, 1800–1860*. Ithaca, NY: Cornell University Press.
- Hamilton, Alexander. 1791. *Report of the Secretary of the Treasury of the United States on the subject of manufactures*. Philadelphia: Childs and Swaine.
- Hammond, Bray. 1957. *Banks and politics in America: From the Revolution to the Civil War*. Princeton, NJ: Princeton University Press.
- Handlin, Oscar, and Mary F. Handlin. 1945. Origins of American business corporation. *Journal of Economic History* 5:1–23.
- Hansmann, Henry, Reinier Kraakman, and Richard Squire. 2006. Law and the rise of the firm. *Harvard Law Review* 119:1336–1403.
- Hartford and New Haven Turnpike Road Company. 1800. *We the subscribers*. Hartford, CT: n.p.
- Heath, Milton. 1954. *Constructive liberalism: The role of the state in economic development in Georgia to 1860*. Cambridge, MA: Harvard University Press.
- Herberts, Thomas, et al. 1793. *To the honorable the speakers*. Alexandria, VA: n.p.
- Hilt, Eric. 2008. When did ownership separate from control? Corporate governance in the early nineteenth century. *Journal of Economic History* 68:645–85.
- . 2009. Rogue finance: The Life and Fire Insurance Company and the Panic of 1826. *Business History Review* 83:87–112.
- Hilt, Eric, and Katharine O'Banion. 2009. The limited partnership in New York, 1822–1858: Partnerships without kinship. NBER Working Paper no. 14412. Cambridge, MA: National Bureau of Economic Research.
- Hovenkamp, Herbert. 1988. The classical corporation in American legal thought. *Georgetown Law Journal* 76:1593–690.
- Howard, Stanley E. 1938. Stockholders' liability under the New York Act of March 22, 1811. *Journal of Political Economy* 46:499–514.
- Hurst, James. 1970. *The legitimacy of the business corporation in the law of the United States, 1780–1970*. Charlottesville, VA: University Press of Virginia.
- Kamensky, Jane. 2008. *The exchange artist: A tale of high-flying speculation and America's first banking collapse*. New York: Viking.
- Kamoie, Laura. 2007. *Irons in the fire: The business history of the Tayloe family and Virginia's gentry, 1700–1860*. Charlottesville, VA: University of Virginia Press.
- Keith, James, et al. 1799. *Entrusted as we are*. Georgetown, VA: n.p.
- Kent, James. 1795. *Dissertations, being the preliminary part of a course of law lectures*. New York: George Forman.
- . 1894. *Commentaries on American law*. 4 vols. New York: Banks and Brothers.

- Kerbel, Jeffrey. 1987. An examination of nonvoting and limited voting common shares—Their history, legality, and validity. *Securities Regulation Law Journal* 16:37–68.
- Kingston, Christopher. 2007. Marine insurance in Philadelphia during the Quasi-War with France, 1795–1801. Amherst College. Working Paper.
- Lamoreaux, Naomi. 1994. *Insider lending: Banks, personal connections, and economic development in industrial New England*. New York: Cambridge University Press.
- Lee, C. H. 1990. Corporate behaviour in theory and history: I. The evolution of theory. *Business History* 32:17–31.
- LePatner, Barry, Timothy Jacobson, and Robert E. Wright. 2007. *Broken buildings, busted budgets: How to fix America's trillion-dollar construction industry*. Chicago: University of Chicago Press.
- Livermore, Shaw. 1935. Unlimited liability in early American corporations. *Journal of Political Economy* 43:674–87.
- . 1939. *Early American land companies: Their influence on corporate development*. New York: Commonwealth Fund.
- Lloyd, Thomas. 1789. *The Congressional Register*. New York: Harrison and Purday.
- Maier, Pauline. 1993. The revolutionary origins of the American corporation. *William and Mary Quarterly* 50:51–84.
- Majewski, John. 2000. *A house dividing: Economic development in Pennsylvania and Virginia before the Civil War*. New York: Cambridge University Press.
- Manne, Henry G. 1967. Our two corporation systems: Law and economics. *Virginia Law Review* 53:259–84.
- Marine Insurance Office. 1799. *Whereas it is contemplated*. Baltimore, MD: n.p.
- McCarthy, Kathleen. 2003. *American creed: Philanthropy and the rise of civil society, 1700–1865*. Chicago: University of Chicago Press.
- Mercator. 1793. For the *Federal Gazette*. *Federal Gazette*, January 15.
- Micklethwait, John, and Adrian Wooldridge. 2003. *The company: A short history of a revolutionary idea*. New York: Modern Library.
- Middlesex Canal. 1798. *At a meeting of the Middlesex-Canal Corporation, held at Charlestown, on the 16th day of October, 1798*. Boston: n.p.
- Moss, David. 2002. *When all else fails: Government as the ultimate risk manager*. Cambridge, MA: Harvard University Press.
- Murat, Achille. 1833. *A moral and political sketch of the United States of North America*. London: Effingham Wilson.
- Mutual Assurance Company. 1787. *The deed of settlement of the Mutual Assurance Company for insuring houses from loss by fire in New York*. New York: William Morton.
- New Jersey. 1799. *New Jersey session laws*. n.p.
- New York Insurance Company. 1796. *Articles of association*. New York: Childs.
- Northern Inland Lock Navigation Company. 1792. *A report of the committee appointed by the directors of the Northern Inland Lock Navigation Company*. New York: W. Durell.
- Nosal, Ed, and Michael Smart. 2007. Limited liability and the development of capital markets. Federal Reserve Bank of Cleveland Working Paper no. 07-03.
- Paine, Thomas. 1795. *Dissertation on first principles of government*. Philadelphia: E. Conrad.
- Paskoff, Paul. 1983. *Industrial evolution: Organization, structure, and growth of the Pennsylvania iron industry, 1750–1860*. Baltimore, MD: Johns Hopkins University Press.
- Perkins, Edwin. 1994. *American public finance and financial services, 1700–1815*. Columbus, OH: Ohio State University Press.

- Philander. 1800. For the *American Citizen*: To the cartmen of New York. *American Citizen*, April 29.
- Pigott, Charles. 1796. *A political dictionary: Explaining the true meaning of words*. New York: Thomas Greenleaf.
- Platt, Jonas. 1811. *Mr. Platt's speech on the bill for establishing the Western District Bank*. n.p.
- Pownall, Thomas. 1776. *A letter from Governor Pownall to Adam Smith*. London: J. Almon.
- Price, Richard. 1785. *Observations on the importance of the American Revolution and the means of making it a benefit to the world*. London: n.p.
- Ramsay, David. 1785. *The history of the Revolution of South Carolina from a British province to an independent state*. Trenton, NJ: Isaac Collins.
- Ratner, David. 1970. The government of business corporations: Critical reflections on the rule of "one share, one vote." *Cornell Law Review* 56:1–56.
- Rhode-Island Bank. 1795. Charter of the Rhode-Island Bank. n.p.
- Rolt, Richard. 1756. *A new dictionary of trade and commerce*. London: T. Osborne and J. Shipton.
- Rothenberg, Winifred. 1992. *From market-places to a market economy: The transformation of rural Massachusetts, 1750–1850*. Chicago: University of Chicago Press.
- Schuyler, Philip. 1792. *The report of a committee appointed to explore the western waters in the state of New York*. Albany: Barber and Southwick.
- . 1793. *To the stockholders in the Northern and Western Lock Navigation Companies*. [Albany, NY?]: n.p.
- Seavoy, Ronald. 1982. *The origins of the American business corporation, 1784–1855: Broadening the concept of public service during industrialization*. Westport, CT: Greenwood.
- Smith, Adam. 1776. *An inquiry into the nature and causes of the wealth of nations*. London: W. Strahan and T. Cadell.
- . 1937. *An inquiry into the nature and causes of the wealth of nations*. New York: The Modern Library.
- South Carolina. 1797. *South Carolina session laws*. n.p.
- Stamford Mutual Insurance Company. 1797. *The constitution of Stamford Mutual Insurance Company*. New York: J. Harrisson.
- State of Tennessee. 1796. *Constitution of the State of Tennessee*. Philadelphia: Thomas Condie.
- Swift, Zephaniah. 1795. *A system of the laws of the state of Connecticut*. Windham, CT: John Byrne.
- Sylla, Richard, Jack Wilson, and Robert E. Wright. 2006. Trans-Atlantic capital market integration, 1790–1845. *Review of Finance* 10:613–44.
- . n.d. Early U.S. Securities Prices, 1790–1860. <http://eh.net/databases/early-us-securities-prices>.
- Sylla, Richard E., and Robert E. Wright, eds. 2003. *The history of corporate finance: Development of Anglo-American securities markets, financial practices, theories and laws*. 6 vols. London: Pickering and Chatto.
- Taylor, George. 1833. *Effect of incorporated coal companies upon the anthracite coal trade of Pennsylvania*. Pottsville, PA: Benjamin Bannan.
- Taylor, John. 1794. *An enquiry into the principles and tendency of certain public measures*. Philadelphia: Thomas Dobson.
- Thomson, Charles, and Robert Morris. 1781. *To the public*. [Philadelphia?]: n.p.
- Tuthill, Samuel, et al. 1791. *Contract for erecting bridges*. Elizabethtown, NJ: n.p.
- U.S. Treasury Department. 1798. Letter from the Secretary of the Treasury, to

- accompany his report on the petitions of sundry inhabitants of the town of Newport. Philadelphia: n.p.
- Virginia. 1788. *Virginia session laws*. n.p.
- Warren Insurance Company. 1800. *The charter of the Warren Insurance Company in Warren (R.I.) established for the purpose of insuring on vessels, and all other objects of risque*. Warren, RI: Nathaniel Phillips.
- Washington Insurance Company. 1800. *Charter of the Washington Insurance Company in Providence*. Providence, RI: B. Wheeler.
- Webster, Peletiah. 1791. *An address to the stockholders of the Bank of North America on the subject of the old and new bank*. Philadelphia: Joseph Crukshank.
- Western and Northern Inland Lock Navigation Companies. 1796. *Report of the directors of the Western and Northern Inland Lock Navigation Companies*. New York: George Foreman.
- White, John. [1791?] *To the honourable the Senate, and the House of Representatives, of the Commonwealth of Massachusetts*. Boston: n.p.
- Williston, Samuel. 1888. History of the law of business corporations before 1800. *Harvard Law Review* 2:149–66.
- Winterbotham, William. 1795. *A geographical, commercial, and philosophical view of the present situation of the United States of America*. Philadelphia: Tiebout and O'Brien.
- Wright, Robert E. 2000. Women and finance in the early national U.S. *Essays in History* 42. <http://etext.virginia.edu/journals/EH/EH42/Wright42.html>.
- . 2002. *The wealth of nations rediscovered: Integration and expansion in American financial markets, 1780–1850*. New York: Cambridge University Press.
- . 2008. *One nation under debt: Hamilton, Jefferson and the history of what we owe*. New York: McGraw-Hill.
- . 2010. *Corporations and the economic growth and development of the antebellum Ohio River Valley*. *Ohio Valley History* 9: 47–70.
- . n.d. U.S. Government bond trading database, 1776–1835. <http://eh.net/databases/govtbond/>.
- Wright, Robert E., Wray Barber, Matthew Crafton, and Anand Jain, eds. 2004. *History of corporate governance: The importance of stakeholder activism*. London: Pickering and Chatto.