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THE POLITICAL ECONOMY OF CORPORATE CHARTERS

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1 Introduction

Why do legislators choose to adopt policies that diminish their authority? Most research addressing this question says that elites relinquish authority to tie their own hands in response to domestic pressure to do so. Some say that elites choose to democratize so as to thwart mass rebellion (Acemoglu and Robinson, 1998; Acemoglu and Robinson, 2006; Boix, 2003). North, Wallis and Weingast (2009) take a different approach, arguing that elites “open access” to credibly commit to non-violence *within* the dominant coalition. Yet, while many have considered the effect of domestic factors, little attention has been paid to the role of external competition in facilitating the transition to open access.

The legislation mandating the move from special to general incorporation in the United States during the 19th century exemplifies a decision by elites to mitigate their authority by turning their special privileges into impersonal rights (North, Wallis and Weingast, 2009: 25) . Between 1843 and 1913, U.S. state legislators voted to open access to the corporate form. With each state’s passage of general incorporation provisions, corporate charters became available by a simple administrative act to anyone who met a set of minimum requirements. This stood in contrast to the *ex ante* system, under which businesses had to petition the state legislature in order to form a corporation. The policy of general incorporation was beneficial to the emerging class of private business owners. However, general incorporation was detrimental to the entrenched business elite, includ-

ing the legislators themselves, who subsequently lost rents and faced greater economic competition as a result of the influx in entry. Thus, understanding the move to general incorporation illuminates why elites in this particular instance were willing to “transform their unique privilege into impersonal rights” (North, Wallis and Weingast, 2009: 25).¹

The history of the passage of general incorporation legislation has received considerable attention in the law and economic history literatures. Some of this work is thickly descriptive: authors describe trends in incorporations in the U.S.,² and conduct detailed studies of the development of corporate laws in specific states.³ More broadly, scholars focus on the *intra*-state considerations that shaped legislators’ decisions to either retain or abandon special incorporation. John Wallis writes extensively on this subject, arguing that state legislators moved to general incorporation in order to mitigate systematic corruption and encourage economic growth (Wallis 2004; Wallis, 2004b; Wallis, 2008). Others attribute corporate reforms to industrialization and the increasing influence of a growing business class (Livermore, 1935; Maier, 1993; Friedman, 1973). However, demand for general incorporation alone cannot explain why legislators reformed incorporation procedures when it was against their private interests to do so. If internal demand was sufficient to motivate the move to general incorporation, we would expect states to charge for the highly coveted charters, which was not the case.⁴ Additionally, we observe

¹General incorporation has implications for economic development that I do not test empirically or discuss in depth here. Partnerships are unable to shield a firm’s assets from each owner’s actions. Additionally, partnerships are evanescent; with the death of a principal, partners face the risk that the firm’s assets will be liquidated at a loss. Consequently, individuals are reluctant to make firm-specific or illiquid investments in partnerships. Corporations, in contrast, are perpetually lived, as their structure allows them to survive beyond the lives of the members who created them (Carney, 1997). Therefore, only corporations are able to support the capital deepening required for modern economic growth.

²For instance, Joseph S. Davis (1870) surveyed the beginnings of Colonial incorporations, but his records do not extend to the decades in which general incorporation was expanded. George Evans (1948) picked up where Davis left off, tracking trends in incorporation from 1800-1943.

³Authors have undertaken studies of the move from special to general incorporation in New Jersey (Howard, 1934; Cadman, 1949), Pennsylvania (Miller, 1940), New York (Kessler, 1940), California (Weinstein, 2003), and, more generally, New England (Kessler, 1948).

⁴Did states trade charters for corporate tax revenue, as Grandy (1989) and Wallis et al. (1994) suggest? Though this question deserves careful empirical analysis in future work, preliminary evidence suggests that revenue concerns did not motivate the move to general incorporation. First, states received revenue from both special and general systems of incorporation. Charters issued under the system of special incorporation were not free, as they were issued in order to induce corporations to provide valuable public services. Wallis refers to this system as “taxless finance” in contrast to “normal taxation” (Wallis, 2008: 53). Second the creation of corporate tax laws does not correspond to the adoption of general

states with low levels of internal demand for charters moving to general incorporation later in the 19th century.

Charter-mongering—“the active solicitation of corporation charters for the purpose of bolstering state revenues by states”—is acknowledged as an additional cause of the proliferation of general incorporation legislation (Grandy, 1989: 667). Many of those who write on 19th century corporate law argue that the spread of general incorporation legislation was a race to the bottom among states; they say that states liberalized their corporate laws in order to attract the businesses of their neighbors (Carney, 1974; Carney, 1997a; Grandy, 1989; Kesbey, 1899).⁵ In addition to this academic literature, the intuition that competition between states led to general incorporation was articulated by prominent political figures during the 19th and early 20th centuries. (see *Liggett v. Lee*, 1933).

Two gaps exist in the extant literature on the transition to general incorporation in the United States. First, “competition” remains a black box: there is a lack of understanding of what, exactly, states were competing for. That is, were states’ strategies offensive or defensive? In other words, were legislators focused on stealing their neighbors’ industries, keeping their own, or both? There has been little attempt to unpack and empirically test the mechanism(s) by which competition motivated legislators to reform their corporate laws. The second and, perhaps, greater gap in the extant literature lies in its failure to rigorously examine the relationship between inter-state economic competition and the spread of general incorporation. The evidence regarding this relationship is primarily qualitative; no study has yet to evaluate the causal effect of competition on general incorporation using the quantitative methods that are now relatively common in the

incorporation at the state level. Moreover, most states do not begin to receive significant revenue from corporate taxes until the early 1900s due to the technologies involved in taxing corporate and intangible sources of wealth. For instance, New York first began to tax capital stock in 1823. However, almost a century later, corporate taxes comprised only 5 percent of the state’s total tax collection (Scala, 1998). These two points imply that it is unlikely that the revenue from normal corporate taxation would exceed that derived from the system of taxless finance. Thus, legislator’s would have had little incentive to trade charters for tax revenue.

⁵In the context of contemporary corporate law, a debate exists as to whether states are engaged in a race to the top, or a race to the bottom. Proponents of the “race to the top” argument say that the competitive market for incorporations has led to more efficient legal structures (Fischel, 1982; Romano, 1993; Winters, 1977).

American politics diffusion literature.⁶

In this paper, I attempt to fill these gaps by providing a theoretical framework to explain how inter-state competition contributed to the wave of general incorporation in the U.S. during the 19th century, and quantitatively testing the hypotheses at the core of this theory. I argue that the move from special to general incorporation can be understood as a tipping model perpetuated by inter-state competition. The states that were the first to “tip” were those most adversely affected by the financial crisis in the late 1830s, and who subsequently faced political pressure to curb systematic corruption; to appease their constituents, legislators opened access to the corporate form by legislating general incorporation. Subsequently, their competitor states feared that their own businesses would vote with their feet, moving to take advantage of the newly implemented general incorporation procedures. The threat of exit motivated these competitor states (that were less hurt by the financial crisis) to abandon special incorporation. Once this next wave of states adopted general incorporation, their competitors were motivated to do so, and so on until all states legislated general incorporation.

The paper proceeds as follows. In Section II, I present a historical overview of the ex ante system of special incorporation. Section III discusses the history of the transition to general incorporation, paying particular attention to the impact of the financial crisis in motivating the first states to tip to general incorporation. I also provide anecdotal evidence of the fact that politicians were motivated by inter-state competition to reform their corporate laws. In Section IV, I draw from previous literature on diffusion to develop a formal model of general incorporation proliferation via inter-state competition. The outcome of the model depends on four hypotheses. Specifically, I hypothesize that states are more likely to adopt general incorporation if (1) they are adversely affected by the financial crisis; (2) their neighbors have adopted general incorporation; (3) a large number of businesses with an interest in obtaining charters reside in their jurisdictions; and/or (4) a large number of businesses with an interest in obtaining charters reside in

⁶For an example of this, see Shipan and Volden, 2008.

their neighbor states where special incorporation has been maintained. These hypotheses are tested empirically in Section V using state-level data from 1840 to 1915. Section VI concludes.

2 The Ex Ante System

The American colonists were reluctant to grant charters to businesses, viewing the corporate form as an outmoded instrument of feudal privilege. Many of the founding fathers had hoped to give Congress the explicit power to incorporate, but feared that including such a provision in the Constitution would hazard its ratification. Consequently, they left the power of incorporation to state legislatures (Maier, 1993: 55). During the eighteenth and early nineteenth century, the conventional mode of allocating corporate charters was by state legislative act (Livermore, 1935).

After the widespread expansion of male suffrage in the 1820s, state governments faced pressure to promote economic growth through investments in transportation and financial infrastructure (i.e. banks, railroads, and canals). Yet, it was difficult to finance projects that benefited legislators' entire constituencies. Since geographically specific developments funded by general taxes would make most constituents worse off—that is, they would receive no benefit, but pay higher taxes—legislators sought alternative modes of financing projects. The system of taxless finance allowed states to fund projects without raising taxes (Wallis, 2003: 2-3). Legislators created corporations that generated public goods; they then used borrowed funds to finance the corporations' projects. States incurred large debts in order to finance infrastructural development, while tax payers assumed only contingent liability. In total, state expenditures on banks, canals, and railroads totaled \$183 million, accounting for \$170 million of the \$198 million of state debt outstanding in 1841 (Wallis, 2005: 23).

As long as projects were successful, tax payers incurred no cost; states could fill their treasuries with profits from charter fees, taxes on capital, and dividends on investments in

the corporations they had created. Because charters were, at the time, basically analogous to monopoly rights, the corporations that states created and invested in were generally successful. For example, both Pennsylvania and Massachusetts invested in or owned stocks in banks during the early 1800s. By the 1830s, taxes on bank capital contributed to over 50 percent of state revenue in Massachusetts, and charter fees and dividends from state owned banks accounted for more than 30 percent of state revenue in Pennsylvania (Wallis, 2003: 5). Similarly, New Jersey received a substantial share of stock in Camden and Amboy Railroad in return for the monopoly right to haul passengers and freight between New York and Philadelphia; dividends from stocks and railroad taxes made up over half of Pennsylvania's revenue from the 1840s to the 1870s (Wallis, 2005: 23).⁷

States maintained this system of open political access and limited economic access for nearly 70 years, as it represented an equilibrium outcome for legislators, businesses, and citizens. Corporations bought de facto monopoly rights in the form of corporate charters. Citizens benefited from infrastructural developments that they did not pay for. Legislators provided public goods and filled their state treasuries without alienating their constituents by raising taxes (Wallis et al., 1994: 129).

3 The Transition to General Incorporation

In 1843, Connecticut became the first state to allow general incorporation. Statutes and constitutional provisions mandating general incorporation laws became prevalent during the 1840s and 1850s, particularly in the North; they spread throughout the country by the 1870s (Wallis, 2008: 10). By 1913, all 48 states had adopted general incorporation, as shown in Table 1 and Figure 1. These acts and constitutional provisions made corporate charters available to anyone who met a set of impersonal criteria. By allowing general incorporation, states forfeited a great deal of their control over economic development, as well as their ability to generate rents, thus contributing to the decline of their own

⁷This may explain why Pennsylvania was so late to adopt general incorporation compared to other states that had invested heavily in infrastructural developments in the North.

authority (Chausovsky, 2005: 33).

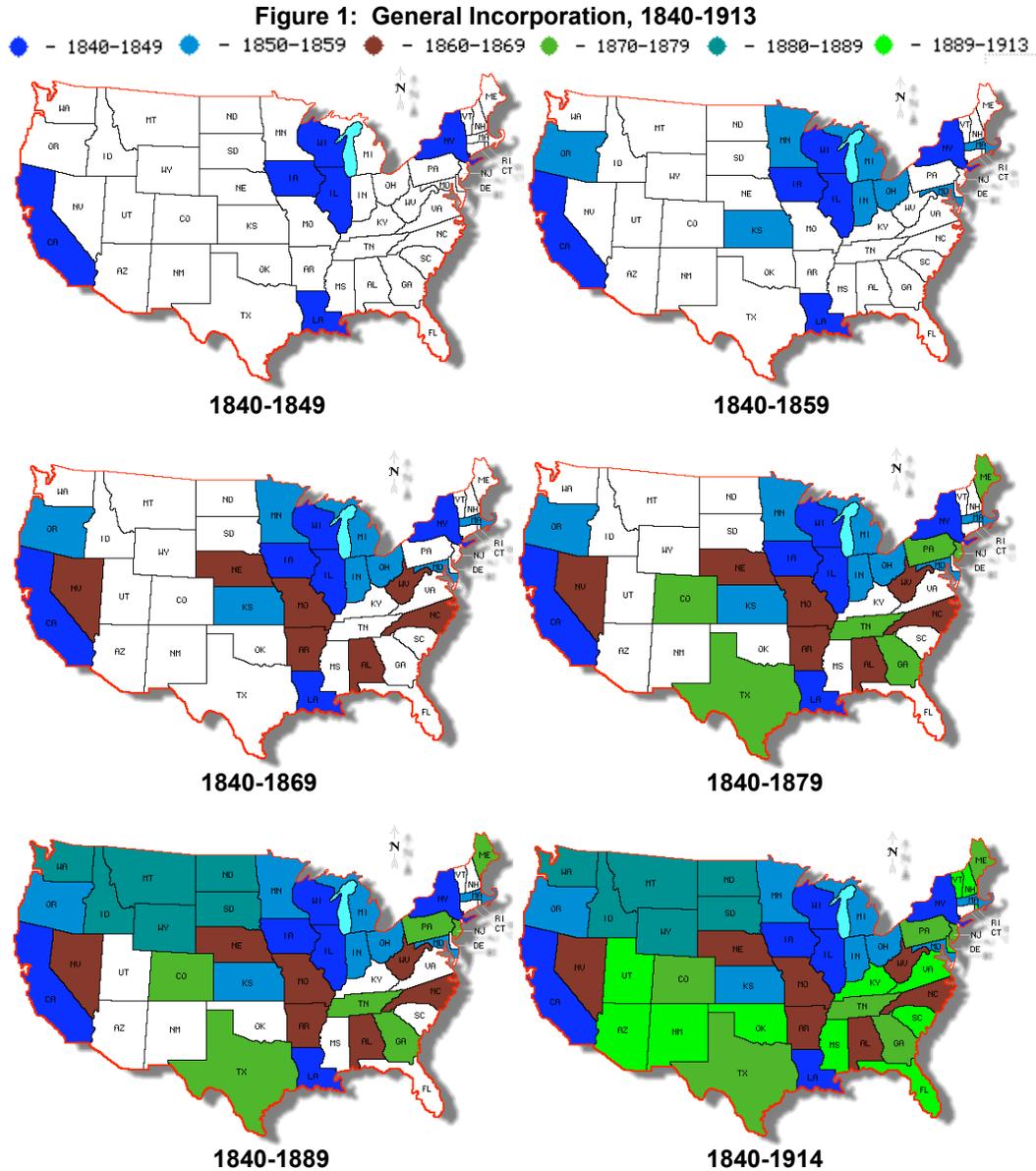
Table 1: General Incorporation by State

State	Year	State	Year
Connecticut	1843*	New Jersey	1875
Louisiana	1845	Maine	1875
Iowa	1846 [†]	Texas	1876
New York	1846	Colorado	1876 [†]
Illinois	1848	Georgia	1877
Wisconsin	1848 [†]	North Dakota	1889 [†]
California	1849 [†]	South Dakota	1889 [†]
Michigan	1850	Montana	1889 [†]
Maryland	1851	Washington	1889 [†]
Ohio	1851	Idaho	1889 [†]
Indiana	1851	Wyoming	1889 [†]
Massachusetts	1851*	Mississippi	1890
Minnesota	1857 [†]	Rhode Island*	1893*
Oregon	1857 [†]	Kentucky	1891
Kansas	1859 [†]	Utah	1895
West Virginia	1862 [†]	South Carolina	1895
Nevada	1864 [†]	Delaware	1897
Missouri	1865	Florida	1900
Nebraska	1866 [†]	New Hampshire	1901*
Alabama	1867	Virginia	1902
North Carolina	1868	Oklahoma	1907 [†]
Arkansas	1868	New Mexico	1911 [†]
Tennessee	1870	Arizona	1911 [†]
Pennsylvania	1873	Vermont	1913

[†]Coincided with Statehood

*Enacted by statute rather than constitutional amendment

The first states to adopt general incorporation provisions did so as a solution to the political and economic problems that resulted from the financial panic of the 1830s. After Andrew Jackson vetoed the recharter of the Second Bank of the United States in 1832, the country underwent rapid inflation and a massive boom in public land sales. This culminated in the Panic of 1837, when banks throughout the U.S. suspended specie payments. After a brief recovery in 1838 and 1839, specie payments were again suspended in the South and West. The result was four years of deflation and recession (Wallis, 2004b: 1). During this period, Pennsylvania, Louisiana, Maryland, Illinois, Indiana, Mississippi,



Michigan, and Florida repudiated on all or part of their debts; New York, Ohio, and Alabama barely avoided default (Wallis, 2008b: 109).

In the aftermath of this crisis, legislators, particularly in those states that had been hit hardest by the financial crisis, faced tremendous political pressure to reform the ex ante system. Consequently, states adopted constitutional amendments to allow general incorporation for most businesses so as to reduce the rents available to politicians from the sale of charters. While economic concerns certainly encouraged this policy move, general incorporation was largely seen as a political solution to a political problem. In

his dissenting opinion in *Liggett v. Lee*, Justice Brandeis describes the motivations for the move to general incorporation in the U.S.: “That the desire for equality and the dread of special privilege were largely responsible for the general incorporation laws is indicated by the fact that many states included in their constitutions a prohibition of the grant of special charters” (288 U.S. 517, 1933: fn4).

The structure of states’ relative ex ante systems determined their incentives to adopt general incorporation immediately after the Panic of 1837. New England states slowly moved toward general incorporation by statute rather than constitutional amendment. Indeed, Connecticut, Massachusetts, New Hampshire, and Rhode Island are the only four states that do not have constitutional provisions requiring incorporation under general law (Evans, 1948: 11). These states gradually opened access in the early 1800s, when the passage of the Embargo Act and the War of 1812 created an increased demand for manufactured products (see Seavoy, 1972:).⁸ The result was general incorporation for manufacturers, and, over time, de facto general incorporation for nearly all businesses. Consequently, voters and politicians did not feel the need to guarantee free entry by constitutional means.

Unlike in New England, states throughout the rest of the North, which promoted economic development through special incorporation, were in deep financial trouble. In particular, New York, Pennsylvania, Maryland, Ohio, Michigan, Indiana, and Illinois were heavily in debt after investing in canals and railroads (Wallis, 2008b: 113). With the exception of Pennsylvania, categorical distrust of the taxless finance system led to the adoption of constitutional provisions for general incorporation in each of these states by 1851.

In the South, however, states were slower to adopt general incorporation. One expla-

⁸In 1807, the federal government passed the Embargo Act barring trade between the U.S. and other nations. Though this law was repealed in 1808, it was immediately replaced with the Non-Intercourse Act. Consequently, embargoes on American shipping were lifted except for those bound for British or French ports. The result was an acute shortage of consumer goods, and, in particular, textiles. These deficiencies were exacerbated by the War of 1812. Governor Tompkin of New York emphasized the need for the state legislature to encourage manufacturing, as self-sufficiency was a vital ingredient in waging a successful war.

nation is that legislators believed—and convinced their constituents of the fact—that there was nothing to fix about their institutions, instead attributing the crisis to the trickery of unscrupulous bank promoters (Wallis, 2008b). Rather than allow general incorporation, they resolved to never borrow money again. Louisiana was the one Southern state that did borrow after the financial crisis in order to build railroads in the 1850s; it is not a coincidence that Louisiana amended its constitution to include a general incorporation provision in 1845.

As Table 1 and Figure 1 show, a minority of states adopted general incorporation in the 15 years after the financial crisis. However, by the early 1900s, every state in the U.S. had eliminated special incorporation. States began to compete to keep their own businesses, who threatened to migrate to states with more liberal incorporation laws. This was particularly problematic, as, for most of the 19th century, corporations were required to operate in the state in which they obtained a charter. Thus, the loss of a business to a competitor state with permissive incorporation laws implied the loss of all positive externalities associated with that particular business, such as employment opportunities for legislators’ constituents.

Another layer of competition was added when states began to grant charters to foreign corporations. In 1889, New Jersey became the first state to allow businesses to obtain charters in New Jersey while operating elsewhere. This policy, which corresponded to the implementation of corporate taxes and charter fees, was intended to attract corporations to New Jersey. Originally, the law required foreign corporations to obtain special permission from the state legislature. This law was relaxed in 1892, when the state no longer required explicit permission (Grandy, 1989: 681). This is indicative of a general trend: even after all states had legislated general incorporation, they continued to lower the barriers to entry (see Kahan and Kamar, 2002). The dynamics of this competition are described by the Governor of Michigan in his Message to the Legislature in 1921: “Because of their inadequacy to meet modern needs and requirements, and the failure to accord domestic corporations the same rights granted to those organized outside of

the state, most of our business corporations are being organized in other states, only to return here as foreign corporations” (288 U.S. 517, 1933: fn49). To summarize, states that were not originally driven by internal demand to adopt general incorporation laws (or, more generally, lenient corporate laws) were later compelled by inter-state economic competition to do so.

4 A Formal Theory of General Incorporation

Diffusion via Inter-State Competition

I began this paper by observing an empirical regularity: by the beginning of the 20th century, every state in the U.S. had transitioned from special to general incorporation. In this section, I generate a series of hypotheses that produce this empirical regularity as an equilibrium outcome. I build on Baybeck, Berry and Siegel’s (2008) formal model of policy diffusion, tailoring their broad framework to the policy of general incorporation.⁹ Hypotheses driving the equilibrium results are marked in bold, while simplifying assumptions that do not drive the outcome of the game are noted throughout the text. Since I believe that some error in decision-making by legislators in states is likely, I cast these hypotheses in terms of their probabilistic affect on states’ propensities to adopt general incorporation.

⁹My model deviates from theirs in three main ways. First, I use a simplified version of their model, as I do not deal with imperfect information. Second, while Baybeck, Berry and Siegel only consider the impact of the decisions of neighbor states in states’ decisions to adopt a policy, I consider additional factors. Most notably, I look at how the debt crisis—an exogenous shock—affected states’ propensities to adopt general incorporation. Third, I do not incorporate two of their main assumptions: (1) that if a state adopts a policy, there is an increased likelihood of target firms acquiring a good there; and (2) that a state benefits from target firms acquiring a good within its jurisdiction. These assumptions are necessary in their model, as they do not want to explain a cascade effect. In this way, my model fundamentally differs from theirs. An additional concern is that, without these assumptions, states will coordinate on policy adoption in the first round of the game. The exogenous shock in my model prevents this outcome.

4.1 The Elements of the Game

There are two types of players: (1) s states, each with a representative legislator who behaves as a unitary actor, and (2) a set of interested firms f that want to acquire corporate charters, but are unable to do so under the ex ante system of special incorporation. Therefore, these firms desire general incorporation. I assume that if general incorporation exists, it does so in fixed locations—that is, in states—and firms must be in these states to obtain charters by general procedures.

Each state s considers whether to adopt general incorporation in each year t .¹⁰ This is a binary, strategic choice. The choice of state s at time t is denoted by $G_{s,t}$ where $G_{s,t} = 1$ if s moves to general incorporation, and $G_{s,t} = 0$ if s retains special incorporation. The action vector $G_t = (G_{1,t}, \dots, G_{n,t})$ describes the behavior of all states at time t .

In every year t , each firm decides whether to obtain a charter by general incorporation. If no state has general incorporation, the firm decides not to obtain a charter by default. If at least one state has general incorporation and a firm chooses to obtain a charter, it also decides where to obtain it. In making this second decision, a firm assesses the costs and benefits of acquiring a charter in each state where it can do so by general incorporation. If the sum of these costs and benefits is negative for all states, the firm chooses not to obtain a charter. If it is positive in one state, the firm obtains the charter in that state. If the net benefit is positive in multiple states, the firm obtains the charter in the state where the net benefit is the greatest. I assume that a firm's willingness to obtain a charter is declining in the distance required to reach a state that allows general incorporation. Specifically, firms will have a net positive benefit from incorporation in states that share a border with their state of origin; firms' willingness to obtain a charter in states beyond these neighbors is zero.¹¹ The assumption that distance is a reasonable proxy for cost is supported by the

¹⁰For simplicity, I model general incorporation in discrete, rather than continuous, time. Doing so is perhaps less accurate, but does not change the equilibrium results.

¹¹I focus on neighbor states rather than distance (in square miles) between states and firms for several reasons that will be discussed in greater detail in the context of the empirical analysis. Notably, I find that the size of states and their neighbors in square miles are insignificant variables in the estimated statistical models. This finding adds validity to the simplifying assumption made here.

substantive context. The costs to firms from incorporating in a location outside of their state of origin include the retention of an attorney to file chartering papers in the desired state, the establishment of a corporate office there, and the transportation of equipment and personnel. These factors are all affected by travel distance, particularly given the difficulty of transportation and communication during the 19th century.¹² *Target firms* of state s , $F_{s,t}$, include all firms sufficiently close to s at year t such that if s adopted general incorporation, the net benefit to these firms of obtaining a charter in s would be positive.¹³ The set of target firms can be partitioned into two groups: (1) firms in s that would have net positive benefits from moving to a neighbor state to obtain charters, denoted $F_{s,t,i}$; or (2) firms in neighbor states that would move to s to obtain a charter if s adopted general incorporation, denoted $F_{s,t,-i}$.

I define a *neighbor state* of s as a state that shares at least one target firm with s (i.e. those that share a border with s). This number is not static over time, as states joined the Union throughout the time period of interest. The subset of states that consist of s 's neighbors in year t is labeled $N_{s,t}$. I define the neighbor action vector as $G_{N_{s,t},t}$. When choosing whether to adopt general incorporation, state s considers the actions of its neighbor states, as the actions taken by $N_{s,t}$ influence the actions of s 's target firms. For simplicity, I assume that each state knows its current and future payoffs with certainty, and that all states' payoffs are common knowledge. In other words, all states know the level of competition that they will face at any time, given a fixed population of target firms and any particular action vector.

In any state s , the abolishment of special incorporation entails a cost for legislators. This cost to state s in year t is denoted $-c_{s,t}(\cdot)$. Similarly, $c_{s,t}(\cdot)$ is the benefit state s receives from maintaining special incorporation in year t . The cost imposed on legislators who abandon special incorporation is the loss of rents. Rents are high when the ex ante system is economically successful. Conversely, they are low when there is an economic

¹²Another advantage to restricting attention to travel distance is that it is directly observable in the empirical analysis

¹³ $F_{s,t}$ is time variant, as the size of industries changed over time.

shock, such as the Panic of 1837. The economic success of the ex ante system in state s in year t is parameterized by $\alpha_{s,t} \in [0, \infty)$, where $\alpha_{s,t}$ represents the degree to which the financial crisis is detrimental to the economy of state s in year t . The benefit of special incorporation to states is maximized when $\alpha_{s,t} = 0$ —that is, when the state has not been affected by the financial crisis, and constituents are satisfied with the ex ante system of taxless finance. The cost of general incorporation, then, is defined as $c_{s,t}(\alpha_{s,t})$. I assert the following hypothesis:

Hypothesis 1: The probability that a state will adopt general incorporation is negatively related to the cost of adoption. Specifically, states that are more adversely affected by the financial crisis will be more likely to adopt general incorporation.

In addition, I make the simplifying assumption that the cost to each state of relinquishing special incorporation declines to zero after the initial adoption of general incorporation. After opening access to the corporate form, the market is flooded with entry. Thus, taking control of incorporation after a period of general incorporation will generate minimal rents, as legislators can no longer allocate monopoly rights in the context of the saturated market. This hypothesis has two implications. First, this means that a state’s beliefs about other states’ costs are beliefs about the costs of initial adoptions. Second, this hypothesis implies that general incorporation is an absorbing state; this is substantiated empirically, as no state moves from general to special incorporation.

The benefit to each state from legislating general incorporation is directly related to four factors. First, it is increasing with political pressure, $P_{s,t}(\alpha_{s,t}) \in [0, \infty)$ for general incorporation. Political pressure is a positive function of $\alpha_{s,t}$ because, with the financial crisis and the consequent failure of the ex ante system, legislators face increased political pressure from constituents to institute policies, such as general incorporation, that curb systematic corruption. Thus, Hypothesis 1 applies here. When $\alpha_{s,t} = 0$, I assume that political pressure for general incorporation is zero, as constituents are pleased

with the system of taxless finance.¹⁴ The second factor influencing the benefit of general incorporation is the adoption decisions of state s 's neighbors, $G_{N_{s,t},t}$. I hypothesize:

Hypothesis 2: The probability that a state will adopt general incorporation is positively related to the number of neighbors it has with general incorporation.

Third, the benefit derived from adopting general incorporation is a function of the choices and distribution of target firms, $F_{t,s}$. Specifically,

Hypothesis 3: The probability that a state will adopt general incorporation is positively related to the number of firms within its border $F_{s,t,i}$ that would choose to move to a neighbor state with general incorporation in order to obtain a corporate charter.

The intuition here is that states that have the most to lose—i.e. those with more firms that would move to obtain charters—will be more likely to adopt general incorporation. Conversely, states with more to gain from general incorporation will also have an increased susceptibility for policy adoption:

Hypothesis 4: The probability that a state will adopt general incorporation is positively related to the number of target firms situated in its border states $F_{s,t,-i}$ that would choose to move to its jurisdiction if it abandoned special incorporation.

Thus, I define the benefit of adopting general incorporation as $b_{s,t}(P_{s,t}(\alpha_{s,t}), G_{N_{s,t},t}, F_{s,t,i}, F_{s,t,-i})$. I define the net benefit to s of adopting general incorporation as $b_{s,t}(\cdot) - c_{s,t}(\cdot)$.

A final maintained hypothesis posits that prior to the debt crisis when no neighbor states had general incorporation, the cost of abandoning special incorporation exceeded the benefit of adopting general incorporation. Formally,

Hypothesis 5: $c_{s,t}(\alpha_{s,t} = 0) > b_{s,t}(G_{N_{s,t},t} = 0, P_{s,t}(\alpha_{s,t} = 0), F_{s,t,i} > 0, F_{s,t,-i} > 0)$

Though I do not explicitly test Hypothesis 5, the primary motivation for this hy-

¹⁴In fact, constituents may actively want legislators to maintain the system of taxless finance when it is successful, implying that political pressure for general incorporation prior to the financial crisis is negative. The outcome of the game is robust to either assumption.

pothesis is empirical (see Wallis, 2004). Prior to the Panic of 1837, no state had general incorporation. Thus, special incorporation represented an equilibrium until this exogenous shock. This implies that no state found it in its interest to be the innovator of general incorporation legislation; the benefit derived from attracting businesses from other states was outweighed by the loss of rents.

I model actors' decision-making processes in discrete time. States adopt general incorporation in year t only if doing so makes their expected utility from adopting, $U_{s,t}$, greater than the expected utility from not adopting, where:

$$U_{s,t} = G_{s,t}^* [(b_{s,t}(\cdot) - c_{s,t}(\cdot)) + \sum_{t+1}^{\infty} b_{s,t}(\cdot)] + (1 - G_{s,t}^*) [\sum_t^{\infty} (c_{s,t}(\cdot) - b_{s,t}(\cdot))] \quad (1)$$

In the above equation, states choose G^* to maximize $U_{s,t}$.

4.2 The Tipping Dynamic

The solution concept is subgame perfect Nash equilibria. The game has two equilibria: one in which no state has general incorporation, and one in which all states have general incorporation. A tipping dynamic, instigated by the debt crisis and perpetuated by inter-state economic competition, explains the transition from the former equilibrium to the latter.

Recall that the cost of adopting general incorporation declines with rents, and rents decline if state s is adversely affected by the financial crisis. Therefore, in accordance with hypotheses 1 and 5, an equilibrium exists prior to the debt crisis in which no state adopts general incorporation; that is, prior to the debt crisis, we do not see any general incorporation, as the following inequality holds:

$$c_{s,t}(\alpha_{s,t} = 0) > b_{s,t}(G_{N_{s,t,t}} = 0, P_{s,t}(\alpha_{s,t} = 0) = 0, F_{s,t,i} > 0, F_{s,t,-i} > 0) \quad (2)$$

The financial crisis causes a tipping, or domino, effect. After the financial crisis, cost declines and political pressure increases, leading some states to have sufficient motivation to adopt general incorporation. The first states to tip from special to general incorporation are thus those in which the ex ante system has failed, resulting in lowered costs to abandoning special incorporation, and increased benefits from general incorporation as a result of increased political pressure. In addition, those states with a high number of target firms in neighbor states, $F_{s,t,-i}$, are more likely to tip to general incorporation.¹⁵ In sum, after the financial crisis, the following is true for a subset of states:

$$b_{s,t}(G_{N_{s,t},t} = 0, P_{s,t}(\alpha_{s,t} = 0) = 0, F_{s,t,i} > 0, F_{s,t,-i} > 0) > c_{s,t}(\alpha_{s,t} = 0) \quad (3)$$

States in which the above inequality holds transition to general incorporation.

Once the first state(s) tip to general incorporation, the utility for all subsequent states is consequently altered. General incorporation becomes more valuable as more neighbor states adopt it and states fear the loss of their own firms. As a result, the benefits to additional states from general incorporation are pushed over the threshold required for them to tip. This is true for those states that were not as adversely affected by an economic downturn under the ex ante system, and/or in which the number of target firms $F_{s,t}$ is lower than it was in the states that transitioned to general incorporation in previous rounds. The tipping pattern continues until all states adopt general incorporation.

5 Quantitative Analysis

In this section, I test the first four hypotheses of the above specified formal model. I attempt to answer three questions. First, did the financial crisis affect states' propensities to move to general incorporation? Second, in the aftermath of the debt crisis, did inter-

¹⁵Consideration of $F_{s,t,i}$ is not so important, as target firms within states borders have no alternative states to migrate to, as no neighbor has general incorporation.

state competition contribute to states' decisions to adopt general incorporation? Last, if competition did affect states' likelihoods of moving from special to general incorporation, were legislators interested in retaining their own businesses, attracting those from other states, or both?

5.1 Common Features Across Empirical Models

5.1.1 Scope Conditions and Model Specification

The analysis includes the 44 states in the U.S. that adopted general incorporation by constitutional amendment between 1840 and 1915.¹⁶ The unit of observation is state years. During this period, all states moved from special to general incorporation either by statute or constitutional amendment, beginning with Connecticut in 1843, and ending with Vermont in 1913. The four states that legislated general incorporation by statute—Connecticut, New Hampshire, Rhode Island, and Massachusetts—are excluded, as they permitted (de facto) general incorporation prior to 1840. However, the results are robust to their inclusion.

Not all states in the data set existed during the time period of interest. However, U.S. territories often passed general incorporation laws that became effective at the time of statehood.¹⁷ In order to capture the factors driving the *passage* of general incorporation laws, I include territories in the data set for five years prior to their admission to the Union.¹⁸

In all models, the dependent variable is the adoption of general incorporation legislation. This variable, *Gen.Inc.*, is coded such that it is initially set to zero. In the year

¹⁶Hawaii and Alaska, which did not join the union until 1959, are not included.

¹⁷The one exception is California. California adopted its state Constitution on November 13, 1949. This Constitution included a provision for general incorporation. The Constitution became effective on December 20, 1849. California was not admitted to the Union until September 9, 1850.

¹⁸The logic proposed in the formal model can explain state's propensity to incorporate with statehood. As there was no ex ante system, the rents received from special incorporation were minimal, if existent. However, the newly formed states still faced pressure to adopt general incorporation in order to maintain their inchoate economies afloat, and attract businesses from other states. Consequently, the benefits from general incorporation quickly outweighed the rents from special incorporation. Thus, the theory proposed in this paper is applicable to emerging states, as well as existing ones. For this reason, I include states that were admitted to the Union during the time period of interest.

that the state passed a constitutional amendment mandating general incorporation, it is set equal to one. In the following years, the state's observations are removed from the dataset, as the state is no longer susceptible to policy adoption.

To estimate the determinants of the move from special to general incorporation, I use an event history approach. Using an event history analysis, I am able to predict the probability that an event will occur given that it has not already occurred. These models take time-dependence into account in their distributional assumptions. This is advantageous, as the adoption of incorporation policies does not follow a normal distribution across time (Box-Steffensmeier and Jones, 2004).

As I have no a priori belief as to the shape of the hazard function, a semi-parametric model is used. Parametric event history models are built based on assumptions about the distribution of the dependent variable, in this case the distribution of the hazard function of general incorporation over time. Rather than assuming a specific distribution, I estimate a Cox proportional hazards model. Cox models are semi-parametric in that they do not assume a particular distribution of the hazard function. When modeling a Cox proportional hazards model, the major assumption is proportional hazards. That is, the model assumes that the hazard is constant over time. This assumption is violated in the case of several independent variables, which I note throughout the subsequent sections. To correct for these violations, I include interactions of the independent variables in question and time in the model estimation.¹⁹

¹⁹Two methods were used to test the proportional hazards assumption. The first method uses Schoenfeld residuals. This is equivalent to testing for a non-zero slope in a generalized linear regression of the scaled Schoenfeld residuals on functions of time. Rejection of the null hypothesis would imply a non-zero slope; failure to reject the null indicates that the proportional hazard assumption has not been violated. The alternative method of testing the proportional hazard assumption involves the inclusion of time-dependent covariates in the model, thus interacting the predictors with time. If the time-dependent covariates are significant, the proportional hazard assumption is violated for that specific predictor. ("Tests of Proportionality in SAS, Stata, and R").

5.1.2 Alternative Hypotheses and Specifying Control Variables

Across Models

The motivating intuition I describe is relatively straightforward: economic competition between states leads them to adopt policies that are, on their face, antithetical to the interests of legislators. Testing this hypothesis empirically, however, is challenging. Generally, hypotheses regarding policy diffusion are susceptible to the criticism first raised by Sir Francis Galton in 1888. Galton noted the difficulty involved in distinguishing whether two units are reacting to each other or to the same underlying stimulus (Galton, 1888).

A challenge to the proposed theory of general incorporation diffusion is the possibility that states were not reacting to each other, but rather to a common economic or political stimuli generating intra-state demand for charters. For instance, one might argue that the adoption of general incorporation legislation in the Northeast was driven entirely by demand within states for manufactured goods as a result of the industrial revolution. Similarly, one might attribute the South's slow adoption of general incorporation to the fact that limited liability was less valuable within the context of the agricultural economy. Because the Southern business enterprise was built around plantations in which land and slaves constituted the main sources of capital, the demand for incorporation might have been lower. Additionally, from the narrative, it is apparent that legislators in different regions had varying responses to the financial crisis. Those in the Midwest and West were most troubled by the systematic corruption that caused the crisis, while Southern and Northeastern legislators were less affected. In sum, an alternative theory of general incorporation accounts for the shift in corporate law by appealing to the character of intra-regional stimuli.

To capture these potentially confounding dynamics, I include regional fixed effects in the model specifications. Four regions are considered: *Northeast*, *Midwest*, and *West*, with *South* as the baseline. The four regions are mutually exclusive, and states are coded as one if they reside in the region, and zero otherwise. If the impact of economic competition on states' decisions to adopt general incorporation is robust to the inclusion

of these fixed effects in the model specifications, the results suggest that diffusion, rather than simply intra-state demand, is motivating policy change.

5.2 Did the Debt Crisis Matter?

5.2.1 Independent Variable Operationalization: The Debt Crisis

According to the proposed theory, a shock—the financial crisis—caused the first states to tip from special to general incorporation. So, the first step to testing this theory is to examine the affect of the debt crisis on states’ likelihoods of moving to general incorporation.

I use two measures of the severity of the debt crisis in each state. First, *default* is a dummy variable coded one if the state defaulted, and zero otherwise. Second, *debt* is the amount of debt in dollars that the state held at the time of the crisis. The values for these variables are shown in Table 2 for those states that existed in 1841. States that did not exist at the time of the financial crisis were coded as having zero dollars in debt. Values are taken from Wallis (2004). As seen in Table 2, there are a few outlier states that incurred unusually high levels of debt. To correct for this, I take the natural log of debt.²⁰ A Schoenfeld residual test rejects the proportional hazard assumption when *debt* is the independent variable; to satisfy this assumption, I include an interaction of time and $(\ln)debt$ in the model specification. This aligns with what we would expect theoretically: the affect of having a great deal of debt in the early 1840s should have a less profound impact on legislators’ decisions regarding corporate laws over time.

Descriptive statistics are presented in Table 2.

²⁰An additional problem with this measure, as well as *default*, is censoring from below. While I do not attempt to correct for censoring in this analysis, it is worth noting that censoring would be expected to attenuate the results.

Table 2: The Impact of the Economic Crisis: State Debt and Default Rates

State	Total Debt in 1841	Default?	State	Total Debt in 1841	Default?
Pennsylvania	\$33,301,013	Yes	Tennessee	\$3,398,000	No
Louisiana	\$23,985,000	Yes	Kentucky	\$3,085,500	No
New York	\$21,797,267	No	Arkansas	\$2,676,000	Yes
Alabama	\$15,400,000	No	Maine	\$1,734,861	No
Maryland	\$15,214,761	Yes	Georgia	\$1,309,750	No
Illinois	\$13,527,292	Yes	Missouri	\$842,261	No
Indiana	\$12,751,000	Yes	Wisconsin	\$200,000	No
Ohio	\$10,924,124	No	Connecticut	\$0	No
Mississippi	\$7,000,000	Yes	Delaware	\$0	No
Michigan	\$5,611,000	Yes	New Hampshire	\$0	No
Massachusetts	\$5,424,137	No	New Jersey	\$0	No
Virginia	\$4,037,200	No	North Carolina	\$0	No
Florida	\$4,000,000	Yes	Rhode Island	\$0	No
South Carolina	\$3,691,234	No	Vermont	\$0	No

Descriptive Statistics		
<i>Debt</i>		$(\ln)Debt$
Mean	\$4,708,116	Mean 7.96
Median	\$200,000	Median 12.21
Std. Dev	\$7,742,970	Std. Dev. 7.77
Min.	\$0	Min. 0
Max.	\$33,301,013	Max. 17.31

5.2.2 Model Specification and Results

I estimate the following models using a Cox proportional hazards model.²¹

$$Gen.Inc. = \beta_1 default + \beta_2 Northeast + \beta_3 Midwest + \beta_4 West \quad (4)$$

$$Gen.Inc. = \beta_1 (\ln)debt + \beta_2 (\ln)debt * time + \beta_3 Northeast + \beta_4 Midwest + \beta_5 West \quad (5)$$

Results are reported in Table 3. Estimates corresponding to equation 4 are shown in Column 1, and estimates of equation 5 are shown in Column 2.

The hazard ratios associated with the debt crisis variables conform to predictions.

²¹Theoretically, target firms in neighbor states could affect states' likelihoods of adopting general incorporation (it is not expected that, at this point in time, target firms in states' own territories affect general incorporation, as these firms have no where to move). To control for this, I add the variable *Neighbor Establishments* (this variable is described in detail in the next section) to the models estimated here. The results are robust to the inclusion of this variable. Moreover, *Neighbor Establishments* is insignificant in both specifications.

Table 3: The Impact of the Economic Crisis: Results

	Column 1	Column 2
<i>default</i>	1.91 (0.13)	
<i>(ln)debt</i>		1.11 (0.03)
<i>(ln)debt * time</i>		0.997 (0.05)
<i>Northeast</i>	0.95 (0.95)	0.73 (0.61)
<i>Midwest</i>	3.89 (0.002)	3.60 (0.01)
<i>West</i>	2.48 (0.05)	2.74 (0.04)
LR χ^2	11.38	14.71
	0.02	0.01
Subjects	44	44

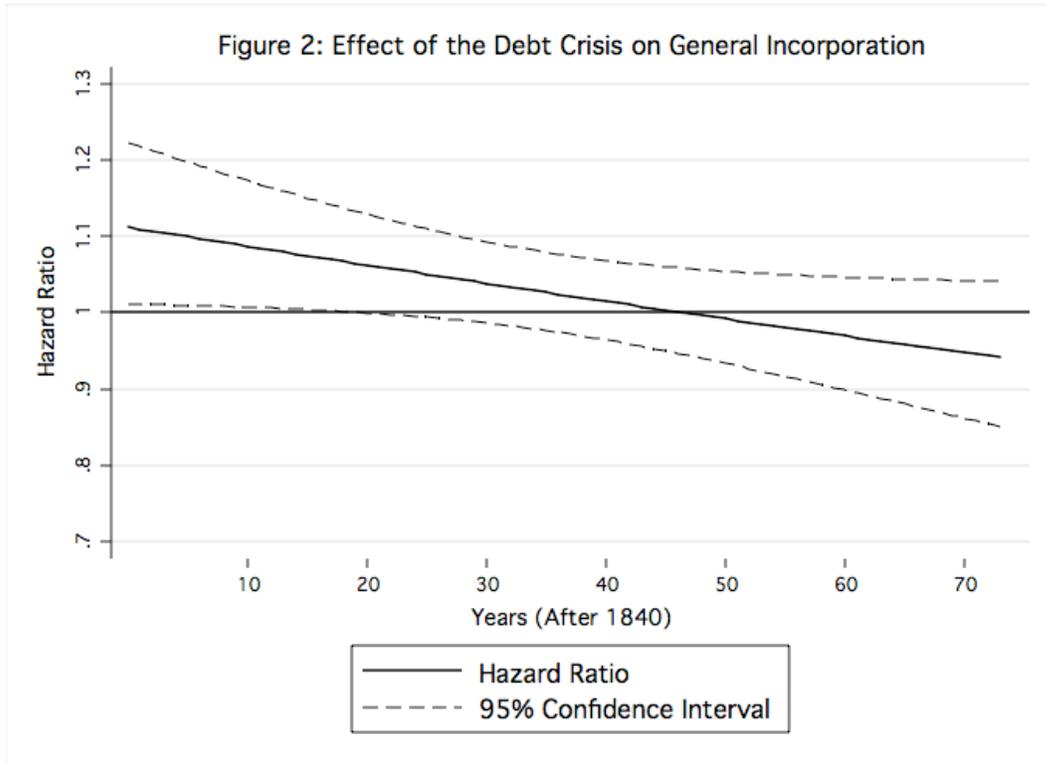
p-values for two-tailed test in parentheses

States that defaulted on their loans after the debt crisis are 201 percent more likely to legislate general incorporation. This coefficient has a *p*-value of 0.13 and is, therefore, not quite significant at the $p < 0.05$ level.²²

Debt is a more nuanced measure of the effect of the financial crisis on states' propensities to adopt general incorporation. Column 2 shows that increasing a state's debt by one logged unit is associated with an 11 percent increase in that state's likelihood of adopting general incorporation. This means that a state with the second lowest amount of debt (Wisconsin, with \$200,000) is approximately 134 percent more likely to legislate general incorporation than a state with zero debt. Increasing a state's debt by one standard deviation (\$7,742,970) results in that state having a 174.5 percent greater likelihood of moving to general incorporation. The effect of debt declines by approximately 0.3 percent each year, as is indicated by the hazard ratio associated with the interaction of *debt* and *time*. The impact of debt on states' propensities to legislate general incorporation over time is shown in Figure 2. Findings regarding the effect of *debt* and the interaction of

²²Though this not significant, there are reasons to believe that we should reject the null hypothesis. First, the number of cases that defaulted is low—only 9 states defaulted. The low number of cases makes it difficult to find statistical significance. Second, technically we should be considering one-tailed tests as the hypothesis is directional. When the *p*-value is divided in half, *default* is significant at the $p < 0.07$ level.

debt and *time* are both statistically significant at the $p < 0.05$ level.



Though the hazard ratio associated with the interaction *debt* and *time* suggests that the effect of debt is declining only slightly each year, this figure shows that the impact of debt is insignificant after approximately 20 years. At this point, the confidence intervals widen, with one indicating a positive relationship between debt and general incorporation, and the other indicating a negative relationship. This suggests that the effect of *debt* is indistinguishable from zero after 1860; at this point, we fail to reject the null hypothesis and conclude that there is no relationship between states' debt and their decisions to move to general incorporation. Thus, states that reformed their incorporation laws in response to the debt crisis did so between 1840 and 1860. The 33 states that moved from special to general incorporation after 1860 were motivated to do so for reasons separate from the financial crisis.

As predicted, the model suggests that states in the West and Midwest have the highest likelihood of adopting general incorporation. In the first model specification, states in the Midwest are 389 percent more likely than those in the South to move to general

incorporation, while states in the West are 248 percent more likely to do so. Similar results hold in the second model specification: Midwestern states are 360 percent more likely to adopt general incorporation than Southern states, and states in the West are 274 percent more likely to do so. These differences between Midwestern and Western states and Southern states are all statistically significant at the $p < 0.05$ level. There is no significant difference between states in the Northeast and those in the South, though the sign on the coefficients indicate that Northeastern states are less likely (by approximately 11 to 27 percent) to move to general incorporation.

5.3 Did Inter-state Competition Matter?

5.3.1 Independent Variable Operationalization: Economic Competition

The evidence presented above suggests that the debt crisis was indeed the push that instigated the wave of general incorporation. Here, I test the hypothesis that this wave was perpetuated by economic competition between states.

Due to the difficulty in capturing the latent variable of interest—economic competition—I use three alternative measures of this concept. First, *NeighborStates* measures the raw number of states on each state’s border that had general incorporation. This variable is, as expected, monotonically increasing, indicating that no state legislated to move from general to special incorporation. There may be concern that this measure is not capturing competition, but rather the variation in the number of neighbors that each state has, as states have between 2 and 8 neighbors. To mitigate this concern, the second measure of competition, *RatioofNeighborStates*, divides the number of border states with general incorporation by each state’s total number of neighbors. Implicit to each of these first two measures is a linearity assumption. For example, in order to use these measures, we must believe that each state is equally impacted by its fourth neighbor state adopting general incorporation as it was by its first. This may be an incorrect assumption. It is possible that states were most impacted when their first neighbor adopted general incorporation,

and the effect of subsequent neighbor states doing so was minor at most. To avoid this linearity assumption, I use the variable *FirstNeighbor*, which is coded one if at least one neighbor state has general incorporation, and zero if no neighbor states have general incorporation. When measuring inter-state competition, I consider neighbor states for two reasons.²³ First, simply measuring the total number of states that previously adopted general incorporation is problematic, as there would be no variation across states in a given year. Second, recall that economic competition is not just a function of the raw number of states that have adopted general incorporation, but also the ease at which businesses can move to these states. Physical proximity, particularly during the time period of interest, is a determinant of the mobility of capital.²⁴

There are two potential, though not mutually exclusive, mechanisms driving the relationship between economic competition and general incorporation laws. First, states may have moved from special to general incorporation in order to retain their businesses as their competitor states adopted more appealing corporate laws. If this is the case, we expect to observe that those states with the most to lose—that is, those with higher numbers of businesses—have a greater propensity to move to general incorporation. To capture this, the variable *Establishments* measures the total number of manufacturing establishments in each state. This measure has a strong right skew, which I correct for by taking its natural log. As shown in Table 4, the distribution of the logged variable is approximately normal. I focus on manufacturers for three reasons.²⁵ First, in the late 1800s, the number of manufacturers in the U.S. proliferated (Evans, 1848). Moreover, after the

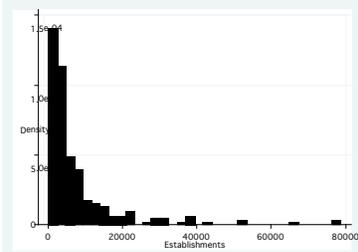
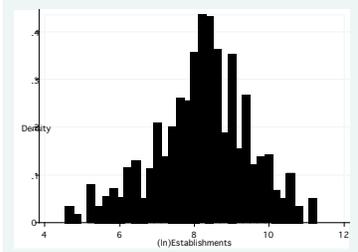
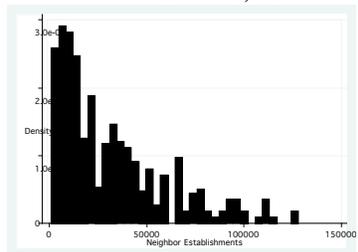
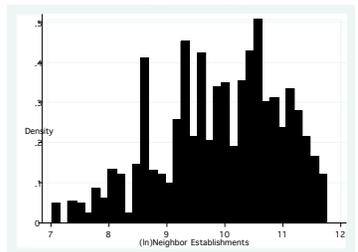
²³A different approach would be to determine competitor neighbor states by matching on economic variables. However, I do not think that this will provide much additional leverage over the problem, as prominent industries within regions tend to be relatively consistent. Moreover, matching requires additional assumptions that are difficult in this situation to satisfy. For instance, given the lack of precise, time series data on state level economic indicators during the 19th century, the critical ignorability assumption would be quite difficult to satisfy

²⁴To better capture capital mobility, I included controls for the size (in square miles) of the observation state, as well as the size of its neighbor states. Both measures were highly insignificant in all estimated models. Moreover, the findings presented here are robust to the inclusion of these variables, and, in most cases, including the size measures strengthens the results.

²⁵Perhaps a better measure would look at the number of uncharted quasi public firms, such as businesses related to transportation (railroads, canals, etc.) and banks. However, this data is not available for the time period of interest, and only exists cross-sectionally for a few industries.

passage of general incorporation laws, the vast majority of corporate charters were issued to manufacturers. Second, the system of taxless finance did not benefit manufacturers, as legislators preferred to issue charters to quasi public firms that would contribute to the state’s infrastructural development. Thus, it is arguable that manufacturers had the most to gain from general incorporation. Third, data on manufacturers, as opposed to other sectors, is accessible through the United States Historical Census.²⁶

Table 4: Descriptive Statistics: *Establishments* and *Neighbor Establishments*

<i>Establishments</i>	<i>(ln)Establishments</i>
Mean 7510.19	Mean 8.2
Median 3810	Median 8.25
Std. Dev. 10,960.74	Std. Dev. 1.27
Min. 95	Min. 4.55
Max. 78,658	Max. 11.27
	
<i>Neighbor Establishments</i>	<i>(ln) Neighbor Establishments</i>
Mean 32,015.02	Mean 9.93
Median 22,290	Median 10.01
Std. Dev. 28,065.72	Std. Dev. 1.04
Min. 1120	Min. 7.02
Max. 128,210	Max. 11.76
	

²⁶This measure of demand was compiled using U.S. census data. This information is available in ten year intervals from 1790 to 1900. For each year that is not directly represented in this source, I impute the values using the closest census calculation. For instance, data for years 1866 to 1875 are imputed using the measure of state size in 1870. To avoid endogeneity bias, I imputed data on manufacturing from the closest census prior to the adoption of general incorporation legislation. Data on the number of manufacturing establishments was not collected in 1910. Thus, information on demand for corporate charters from 1895 to 1915 was imputed based on the 1900 census. For this reason, I am missing data on states that did not join the union until after 1900 (Oklahoma, New Mexico, Arizona). For these states, I use the 1920 estimates.

The second competition mechanism asserts that legislators adopted general incorporation in order to attract businesses from their neighbors (i.e. charter-mongering). If this is the case, states will be more likely to adopt general incorporation if their neighbors have a large number of unchartered businesses. To operationalize the charter-mongering mechanism, I measure the total number of manufacturing establishments in the states bordering the observation state that do not have general incorporation in the observation year. I only look at establishments in states with special incorporation as, theoretically, target firms would choose to obtain charters in their own state if doing so was possible, as the net benefit would be greatest. This variable, *NeighborEstablishments* is again skewed to the right; to correct for this, I take the natural log of the total establishments in neighbor states. The resulting distribution, shown in Table 4, is certainly not perfectly normal, but it is a vast improvement over the original distribution.

In all models, I include regional controls, as well as variables measuring debt in 1841 (logged), and the interaction of *debt* and time. Additionally, I include the interaction of the competition measure (either *NeighborStates*, *RatioofNeighborStates*, or *FirstNeighbor*) with time in order to satisfy the proportional hazards assumption.

5.4 Model Specification and Results

I estimate the following equation using a Cox Proportional Hazard Model, where *competition* is either *NeighborStates*, *RatioofNeighborStates*, or *FirstNeighbor*:

$$\begin{aligned}
 Gen.Inc. = & \beta_1 Competition + \beta_2 Competition * time + \beta_3 Establishments + \\
 & + \beta_4 NeighborEstablishments + \beta_5 (\ln)debt + \beta_6 (\ln)debt * time + \beta_7 Northeast + \\
 & + \beta_8 Midwest + \beta_9 West(6)
 \end{aligned}$$

Results are presented in Table 5. Column 1 shows the results of the model estimated with *NeighborStates* as the measure of competition; this variable is replaced with *RatioofNeighborStates*

Table 4: The Impact of Inter-State Economic Competition: Results

	Column 1	Column 2	Column 3
<i>NeighborStates</i>	1.57 (0.22)		
<i>RatioofNeighborStates</i>		252.58 (0.03)	
<i>FirstNeighbor</i>			6.13 (0.04)
<i>Competition</i> ²⁷ *Time	0.99 (0.23)	0.82 (0.01)	0.91 (0.002)
<i>(ln)Establishments</i>	1.51 (0.03)	1.52 (0.04)	1.54 (0.045)
<i>(ln)NeighborEstablishments</i>	1.01 (0.96)	1.07 (0.79)	1.15 (0.56)
<i>(ln)debt</i>	1.04 (0.45)	1.01 (0.80)	1.01 (0.84)
<i>(ln)debt * time</i>	0.998 (0.32)	0.999 (0.61)	0.999 (0.46)
<i>Northeast</i>	0.41 (0.17)	0.30 (0.08)	0.42 (0.17)
<i>Midwest</i>	3.91 (0.01)	4.24 (0.01)	5.06 (0.002)
<i>West</i>	4.44 (0.03)	4.78 (0.02)	5.91 (0.01)
LR χ^2	22.33 (0.01)	28.21 (0.001)	32.64 (0.0002)
Subjects	44	44	44

p-values for two-tailed test in parentheses

for the model reported in Column 2, and *FirstNeighbor* in Column 3.

The results are relatively robust to the three specifications. In all models, the hazard ratios associated with the relevant measure of competition is positive, aligning with theoretical expectations. Column 1 shows that increasing states' neighbors with general incorporation by one results in a 57 percent greater likelihood of adopting general incorporation. Though this lends support to the hypothesis that competition influenced states' decisions with regard to corporate policy, the coefficient is insignificant, with a *p*-value of 0.22. However, this is arguably the least valid measure of the three. The second model includes a more valid measure, *RatioofNeighborStates*, and provides stronger support for the competition theory. Here, we see that if a state goes from having no neighbors with general incorporation to having all neighbors with general incorporation, that state's

likelihood of adopting general incorporation increases by 2,525 percent. This finding is significant at the $p < 0.05$ level. Finally, column three shows that when a state goes from having zero to one neighbor with general incorporation, its likelihood of moving to general incorporation increases 613 percent. Again, this finding is significant at the $p < 0.05$ level. Thus, there is compelling evidence to support the theory that increased inter-state competition impacts states' propensities to legislate general incorporation.

Counter to conventional wisdom, charter-mongering does not appear to be a factor in legislators' decisions to move to general incorporation. Across models, the number of establishments in neighbor states is positively signed in accordance with expectations, but highly insignificant. This suggests that higher prospects of attracting out-of-state businesses did not increase states' likelihoods of transitioning to general incorporation.

Instead, it appears that states may have been more concerned with retaining, rather than attracting, businesses. Across all models, the effect of the number of establishments in each state is positive and significant at the $p < 0.05$ level. A one unit increase in the log number of manufacturing establishments increases a state's likelihood of adopting general incorporation by between 51 and 54 percent. The most conservative of these estimates suggests that a one standard deviation increase in a state's raw number of manufacturing establishments increases a state's likelihood of legislating general incorporation by approximately 474 percent. Moving from the minimum to the maximum number of establishments increases this likelihood by about 575 percent.

Interestingly, *debt* is not significant at the $p < 0.05$ level in any model. This may be a result of the fact that the effect of debt is, as we have seen, isolated to the first few years in the analysis. There is no significant difference between Northeastern and Southern states, though the hazard ratios indicate that Northeastern states may be less likely to adopt general incorporation than their Southern counterparts. Midwestern states are between 391 percent and 506 percent more likely to adopt general incorporation than Southern states, while Western states are between 444 percent and 591 percent more likely to do so.

To summarize, the empirics suggest that economic competition did indeed positively impact states' decisions to allow general incorporation. In contrast to some of the extant literature, I find that legislators did not adopt general incorporation in order to attract businesses from other states. Rather they were motivated by the fear that their businesses would migrate to competitor states with general incorporation if they did not reform their own incorporation laws.

6 Conclusion

In this paper, I have attempted to explain why all U.S. states moved from special to general incorporation between 1843 and 1913. Prior to the 1840s, the *ex ante* system of special incorporation provided political and economic rents to legislators. In many states, this changed in the late 1830s when the U.S. experienced a recession. Those states that were most adversely affected by the crisis faced a political problem: their constituents were deeply disturbed by the current state of the financial market, and demanded that legislators restrict their own power over economic development. The adoption of general incorporation was, for many legislators the solution to this problem. States that were most adversely affected by the recession and in which political pressure for general incorporation was high were the first to move to general incorporation. Soon, states with lower levels of demand for incorporation had incentives to legislate general incorporation as well; if they did not reform their incorporation policies, they risked losing their own businesses. The empirics show that, counter to popular wisdom, charter mongering, or the pursuit of neighbor states firms, did not motivate states to transition from special to general incorporation. Instead, states' desires to keep their own firms within their jurisdictions increased their' propensities to adopt general incorporation.

Here, I have proposed a framework to explain how competition between states compels elites to adopt policies that diminish their own authority. Thus, inter-state, in addition to intra-state, factors influence the process of opening access. I believe that

this framework can be generalized beyond the case of general incorporation; it can aid in our general understanding of policy diffusion across states in federalist systems, or even cross-nationally.²⁸

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²⁸North, Wallis and Weingast suggest that international competition between Britain and France affected the movement toward general incorporation (North, Wallis, and Weingast, 2009: 225). The framework I propose here could be used in future work to explain the shift in each country's incorporation policies.

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