The Direct Effect of Corporate Law on Entrepreneurship

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Abstract

This paper estimates the impact of adopting the Model Business Corporation Act, a compendium of legal best practices, on U.S. state-level entrepreneurship. States adopted new corporate law endogenously, with legal changes being preceded by economic booms. Using foreign firm entry allows controlling for this endogeneity. Difference-in-differences estimates show better law increased the rate of new local corporations by 26% per year. Four tenths of the new corporations are substitutions from other firm types, and the rest are net new firms. Southern and Western states benefited more, and states that only partially adopted the MBCA saw no benefit.

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1 Introduction

Institutions are critical to economic growth (Smith, 1776; La Porta et al., 1998; Acemoglu and Robinson, 2012). One reason is their role in creating an environment where the Schumpeterian process of creative destruction can thrive. As outlined in Akcigit and Kerr (2018), Schumpeterian economic growth is the result of entrepreneurial young firms that grow to displace old ones in a never-ending process of competititive innovation.¹

While institutions are recognized as important, understanding which institutions matter has proved more difficult. A key area of debate is how formal do institutions need to be. For example, while the law and finance tradition (Djankov et al., 2002; Lerner and Schoar, 2005; Landes et al., 2012) and comparative case studies (Lerner and Tåg, 2013) emphasize formal institutions and codified law as critical to growth, the social capital literature puts the focus on informal institutions, such as interpersonal trust and social networks, as the centerpiece of development (Guiso et al., 2004; Bottazzi et al., 2016; Franks et al., 2008; Acheson et al., 2019).

This paper illuminates this debate by studying one key formal institution, corporate law, and its impact on the level and quality of regional entrepreneurship. Corporate law is the set of rules governing the relationships and interactions between businesses, people, and government. It is therefore likely to be central to a well-functioning economy. However, corporate law is naturally endogenous to a region and tends to co-evolve with its culture and economy. This has traditionally made identifying its effects difficult. In this paper, I take advantage of changes in corporate law that did not come endogenously from a local region, but instead arose from the centralized design of new corporate law through the Model Business Corporation Act (MBCA), a generalized template

¹See also Klette and Kortum (2004), Aghion and Howitt (1992), Acemoglu and Robinson (2012), and Gompers and Lerner (2004).

of corporate law adopted by many U.S. states in the middle of the twentieth century.

Using a difference-in-differences approach, I study the change in the number of new corporations registered in each state after the passage of a corporate act adopting the MBCA. After accounting for policy endogeneity, I document that this improvement in corporate law directly increased the formation of local corporations by 26% per year. Four tenths of the new corporations are substitutions from other firm types, and the rest are net-new firms. Consistent with a mechanism whereby better law increases investor protection and entrepreneurship, states with more rudimentary institutions benefited more, and states that only partially adopted the MBCA saw no benefit. Together, this constitutes novel evidence of the importance of law for entrepreneurship, and the role of formal institutions in creative destruction and economic growth.

The United States offers a unique laboratory to study corporate law and entrepreneurship. In contrast to almost every other country, U.S. corporate law is created mostly at the state level. State legislatures shape corporate law with the goals of supporting the local business community and maximizing government revenue. However, updating corporate law is difficult. It requires nuanced understanding of how specific rules will be interpreted. Corporate law shapes incentives to invest, participate in the labor force, and commit crime. States therefore tend to update their laws cautiously, with a preference for copying well vetted 'best practices'. Perhaps the only serious exception to this pattern is Delaware. Delaware has a specialized cannon of law that does not aim to support its own business community, but instead explicitly targets its benefits to large or growing companies located anywhere in the United States.²

As the country came back from World War II, technological change and population growth

 $^{^{2}}$ In fact, while Delaware is less than 0.1% of population, more than half public firms are registered under its jurisdiction.

created a need for law that allowed more complex transacting and a better ability to engage in interstate commerce. This was when the American Bar Association, a non profit dedicated to developing standards of legal practice and teaching, created the Model Business Corporation Act (MBCA) as a prototypical act that embodied best in class choices in corporate law. By the time it was revised, in 1983, its impact had been significant. Nineteen states had introduced new corporate acts modeled after, and often copying verbatim, the MBCA.

This paper introduces a novel dataset tracking U.S. firm formation during this time period by individual states. The data documents both the state in which firms are operating and their legal jurisdiction. Firms in the United States can register under any state as their main jurisdiction, independent of actually conducting business there, though for practical purposes firms tend to register either locally (for most firms), or in Delaware (if they are growth oriented). This allows measuring by state and year the number of corporations registered under local jurisdiction (hereafter, local corporations), the number of partnerships registered under local jurisdiction (local partnerships), the number of companies headquartered locally but registered under Delaware jurisdiction (local Delaware companies), and companies registered in Delaware with headquarters outside of the state (foreign Delaware companies).

A key identification issue is the likely endogeneity in the implementation and adoption of the new corporate acts. Updating its corporate law is an important and difficult task for a state, so states that do update their law to adopt the MBCA likely have specific needs driving them to do so. In a classic two-way fixed effects model (i.e., with state and year fixed effects), time specific changes in the state's situation, such as a localized economic boom, are likely be correlated with the timing of law adoption. If this is the case, a two way fixed effects estimate could be biased.

However, the analysis in this paper is able to make progress by noting that not all types of

new firms benefit equally when a new corporate law is introduced. Better law directly helps local entrepreneurs only if they register the company under the local jurisdiction. Thus, law affects the rate of firm formation for local corporations, local partnerships, and (through substitution) local Delaware companies. However, it does not have a direct impact on the rate of registration of foreign Delaware companies in the state. These firms are headquartered outside the state, and only expand into the state for opportunities of commerce or production. Since they are in a different jurisdiction, they are by and large not influenced by the new corporate law. This allows a difference-in-differences estimate on the direct effect of corporate law, which is the increase in the formation of local firms relative to the entry of Delaware foreign firms in the same year. The main dependent variable is thus the log ratio between the number of local corporations and the number of foreign Delaware firms registered in a year.

The empirical results in this paper begin by documenting policy endogeneity under a two way fixed effects model. There is a positive pre-trend in the rate of local corporations before the new corporation act is introduced. This pre-trend is also apparent in the founding of foreign Delaware firms, and in the corporations founded in neighboring states. The slope of both local corporations and Delaware firms appears similar. Consistent with the identification approach, once the number of local corporations relative to foreign Delaware firms is used as the dependent variable, the pre-trend is instead stably around zero. Using this approach, I estimate that there was an increase of 26% in the number of local corporations after the passing of the new law. Four tenths of this increase comes from substitutions from other types of firms—local partnerships and local Delaware firms—pulling from both higher and lower quality firms.

After validating the main effect through a series of robustness tests, the paper moves on to consider two placebo tests that provide further evidence that it is the local improvement in the law

that led to the increase in the founding of local corporations. The first placebo test uses as treatment corporate acts that do not implement the MBCA fully. The second uses the firm formation in neighboring states, which had correlated economic conditions but no direct effect from the new law, as the dependent variable. The estimated coefficients are zero for both. Finally, the paper considers the stage of development of the states that adopt the new law. Consistent with better law helping more states that have more rudimentary institutions, the effect is higher for smaller states and states in the U.S. South and West.

Besides the institutional debate, these results contribute to two areas of the literature. The first is a broader literature on policies for entrepreneurial ecosystems. Recent evidence in this area has suggested that government policy has little impact on local entrepreneurship. For example, estimates on the impact of R&D tax credits on entrepreneurship show that, initially, they mostly help existing firms (Agrawal et al., 2020; Lanahan and Feldman, 2018; Babina and Howell, 2018), and that they take many years to promote new firm entry (Fazio et al., 2020). Similarly, state tax credits for angel investing appear to have largely been unhelpful in propping up entrepreneurial activity, and instead mostly increased investment in low-quality insider firms in the United States (Denes et al., 2019; Howell and Mezzanotti, 2019).³ Finally, Feldman (2001) presents a detailed case-study of the US Capitol region (the Washington D.C. area) to show that the catalyst event for the formation of this entrepreneurial ecosystem was the presence of 'pioneering entrepreneurs' who then created the necessary institutions as they grew (rather than institutions fostering entrepreneurship). Together, this evidence predicts weak or null effects of government policy in improving entrepreneurial entry over the short term. This paper, by contrast, documents one aspect of government policy that seems to positively impact entrepreneurship-the

³However, Gonzalez Uribe and Paravasini (2019) show similar credit had a significant positive effect in the UK.

legal framework.

Second, the results in this paper also relate to the large body of empirical work studying the impact of law on regional outcomes, both across states (Berkowitz and Clay, 2005) and across countries (Armour and Cumming, 2008; Djankov et al., 2002). While this literature initially studied long-run legal institutions (La Porta et al., 1998; Acemoglu and Johnson, 2005; Lerner and Schoar, 2005), it has more recently moved to investigate short-term variation using panels of countries to consider outcomes such as lending (Haselmann et al., 2009), investment (McLean et al., 2012; Brown et al., 2013), and innovation (Levine et al., 2017; Brown et al., 2013). Within the United States, a small number of papers have also used exogenous variation created by the forced change from tribal law to U.S. law in some Native American areas to understand the long-run impact of U.S. legal institutions on rule of law, financing, and sovereignty (Wellhausen et al., 2017; Brown et al., 2016).

Relative to these prior studies, this paper contributes to understanding the impact of law on business activity in three distinct ways. First, and most importantly, it is the first paper to consider the direct impact of 'good corporate law' in and of itself, without the contamination of other aspects of institutions that go beyond corporate law such as culture or the quality of courts and the judicial system. The adoption of the MBCA is a clean event that simply changed the law, but not the location or the people it considered. Second, empirically, this study moves beyond both long-term regional cross sections and country level panel data, and instead estimates the impact of corporate law within regions in the same country. This is appealing because countries can vary substantially across themselves, and long-term differences in institutitions, such as differences in legal origins, can reflect many things. The results in this paper better reflect the type of corporate law changes that are feasible in an economy. Finally, third, this paper is unique in its focus on the extensive margin of economic activity, entreprenurship.

The remainder of this paper proceeds as follows. Section 2 describes the Model Business Corporation Act. Section 3 reviews the data. Section 4 is the empirical model. Section 5 reports the empirical results. And Section 6 concludes.

2 The Model Business Corporation Act

The Model Business Corporation Act (MBCA) is a prototype legal act (i.e., a model) created by the American Bar Association. Model acts are amalgamations of best practices of corporate law that legislative bodies (such as states or cities) can copy or adapt when developing their own law. They are used extensively in the United States, and often constitute significant guidance for state and municipal legislative improvements.

As the United States recovered from the war effort of the 1940s, inter-state commerce and population boomed, and most states found their corporate laws lacking in terms of the quality necessary to support the needs of a more sopisticated business community. The few exceptions to this were Delaware—a state that had already emerged as a location of choice for large national firms—and some economically important states that had already developed complex law, such as New Jersey, Ohio, and New York.

While facing a need for better corporate law, many states lacked the capabilities to create it. Some states were still in the process of achieving statehood themselves (e.g. Hawaii), while many others either had such a small population or relied on citizen-legislators⁴ (who spend a large

⁴Citizen-legislators are legislators that spend the bulk of their time in 'citizen' (non-legislative) activities, such as professional jobs or businesses. Even though the U.S. federal government relies fully on 'professional-legislators' who get the bulk of their compensation for their legislative work, many U.S. states even today continue to work through citizen-legislators. Squire (2007) provides a measure of professionalism across state legislatures in the present day. MacRae (1954) provides an in-depth account of the common activities of Massachusetts's legislators during the time

portion of their time in non-legislative activities) that state knowledge of how to set up and design new corporate law was roughly non-existent.

To fill this need, the American Bar Association—a non-profit entity dedicated to developing standards of legal practice and teaching—decided, in 1943, to undertake the creation of the Model Business Corporation Act. The original Model Act was released in 1946, and revised in 1950 and 1953, after long periods of open comment from the ABA's members (Campbell, 1956). The Act contained 145 sections, including:

The process of incorporation, corporate powers, corporate purposes, authorized shares, shareholder meetings, directors' meetings, dividends, directors' liabilities, charter amendments, the sale and mortgaging of assets, mergers and consolidations, dissolution, receivership, the admission and ouster of foreign corporations, annual reports, license fees and franchise taxes, and general provisions.

(Campbell, 1956)

States began to adopt it quickly. Maryland was the first, in 1951, followed by Oregon (1953),

Texas (1955), North Carolina (1955), and Wisconsin (1956). Fourteen more states adopted it over

the next ten years. The extent of adoption, however, was not always the same. In most cases,

the adoption of the act was virtually 'complete' (and in fact, often verbatim), in part due to the

aforementioned preference for using the best practices as-is. But in some cases, states decided to

adopt only portions of the act. The most notable one was North Carolina. As Campbell (1956), the

lead author of the Model Act itself, notes:

In 1955 North Carolina adopted a new statute. While the published work of the North Carolina committee contains many references to, and credit lines for, the model act, the Section's committee feels that such a poor job was done in North Carolina that it rejects the thought of any kinship between the new North Carolina act and the model act.

Gibson and Freeman Jr (1967) concur, and mention that the MBCA was incorporated only "to

a lesser measure" in drafting the acts of Maryland (1951), North Carolina (1955), Alabama (1959),

and Connecticut (1959).

period studied in this paper.

Once this wave of adoption passed, the MBCA moved to a quasi-dormant state until it underwent a significant revision in 1983, with the release of the Revised Model Business Corporation Act (Goldstein and Hamilton, 1983). The present study documents the impact of adopting the original MBCA, before it was replaced by the Revised MBCA, on entrepreneurship.

3 Data

To study this question, I merge two distinct datasets. The first measures new firm formation across each state using historical business registration records. This data was procured through the Startup Cartography Project (Andrews et al., 2020), and might be of interest in and of itself, since it is the first estimate of US entrepreneurship in this time-period. The second dataset is indicators of the implementation of new corporate acts modeled after the MBCA, which is built using historical articles published in *The Business Lawyer* and other outlets.

3.1 Measuring Entrepreneurship Using Business Registration Records

The measures of state entrepreneurship come from the business registration records of firms registered across U.S. states between 1946, when World War II ended, and 1983, when the Revised MBCA was introduced. Business registration is the act of legally establishing a new entity with which to conduct business. Between 1946 and 1983, states broadly offered two types of registration to entrepreneurs: a corporation, which is a limited liability entity without pass-through taxation benefits; and a partnership, which is a pass-through entity with unlimited liability. Registering their firm as a corporation or partnership offers several important benefits to entrepreneurs compared to staying as an unregistered firm (sole-proprietorship): it can provide limited liability in risk taking,

tax advantages, a common entity for shared ownership and management, and it is a practical necessity for any company that wishes to receive investment.

As is the case today, entrepreneurs registering a new firm in the mid-twentieth century were not required to register their company under the state jurisdiction where they lived, or where the company had its main business operations. Since the end of the 19th century (when the process of firm registration opened), a non-trivial number of new firms have been registered under Delaware jurisdiction, even when their principal headquarters are located elsewhere. This foreign (i.e., out of state⁵) registration does not imply that those firms do not register in their local state: firms are also required to register as a foreign firm in every state in which they conduct meaningful business.⁶

I received data on all corporations and partnerships of both local and foreign jurisdiction through the Startup Cartography Project (Andrews et al., 2020). The Startup Cartography Project is a project intended to develop measures of the quality and quantity of entrepreneurship across U.S. regions in the present day. With a team of collaborators, we engaged in an effort to request and purchase data from the Secretaries of State (or Commonwealth) of each state with the goal of incorporating these measures into our project. In most cases, states provided us with the full database of their registrations, allowing us to also observe registrations before 1988 when the Startup Cartography public data begins. Specifically, we received information on registered firms across 46 states, after excluding three states that did not provide data before 1988—Illinois, Nebraska, and Pennsylvania—, and excluding Delaware, due to its unique nature in the U.S. firm registration process.⁷ The analysis in the present paper is limited to the data from firms founded

⁵In U.S. corporate law, the term 'foreign firm' simply reflects one registered under a different state jurisdiction, and not a different country.

⁶Generally, state legislatures require all companies that either lease property, hire employees, or get a bank account to register in the local jurisdiction.

⁷Namely, while the entrepreneur usually chooses between a local firm and a Delaware firm in most states, these two choices are not available for firms located in Delaware, for obvious reasons.

between 1946 to 1983. This time period is the broadest possible period that is not contaminated by World War II or by the Revised MBCA in 1983. Limiting the sample at 1983 is also useful in that a different corporate law change—the introduction of limited liability companies (LLCs)—was starting to gain traction at this point since its invention by Wyoming in 1977, and it would go on to significantly alter the legal structure and incidence of U.S. firms in the follow-on decades.⁸

I aggregate registrations into a balanced panel that counts the number of firms founded in each state and year. There are 1,748 total observations in the data, each with several mutually exclusive measures of the number of firm registrations occurring in a given state and year. Local Corporations is the outcome variable of interest in most regressions. It represents the total number of new corporations registered in the local state jurisdiction in that state and year. This is the variable that should be impacted by the introduction of better corporate law, if corporate law actually does influence entrepreneurship. Local Partnerships represents the number of partnerships registered locally under the focal state's jurisdiction in a given year. While the MBCA also improved the quality of law for local partnerships, the relative improvement was higher for corporations. From the entrepreneur's perspective, it is therefore not clear if the appeal of registering as a local partnership increases or decreases after MBCA adoption. Local Delaware *Firms* is the yearly count of new firm registrations for firms that are local to the state, but have chosen to register under Delaware jurisdiction rather than the jurisdiction of the state in which they are located. Foreign Delaware Firms is the yearly count of registrations of firms that are not local to the state, and simply register as they enter the state in the process of expansion. While the first three variables indicate entrepreneurship in the state, the fourth one does not, but instead is only a factor of the opportunities in the state for sales or production.

⁸See Gazur (1995) for a detailed account of the adoption of the LLC and its impact.

Finally, I include four more alternative measures that proxy for the level of local business activity. The first three are simply expansions from other states besides Delaware. *New Jersey Firms, New York Firms, and Ohio Firms* are the number of firms registered in each state from these three states, which represent the most economically developed and institutionally advanced states during this time period. The fourth measure, *Neighbor State Corporations*, is the total sum of corporations registered as local firms in the states directly neighboring the focal one. This is an additional proxy for the localized business activity occurring in a geographic area.

3.2 Documenting MBCA Adoptions

To record the year of introduction of a new corporate act modeled after the MBCA, I take advantage of historical articles authored in the process of creating either the MBCA itself, or the state level acts. A particularly useful source was the volumes of *The Business Lawyer*. Published by the American Bar Association, this is the top trade journal for corporate law at the time (and today). It includes articles written by the lead author of the MBCA, Whitney Campbell (Campbell, 1956), tallies of adoptions produced by the ABA itself (American Bar Assoc., 1965), and articles by the authors of specific state acts (Gibson, 1956). I complemented this with law review articles by authors of individual pieces of legislation, especially the comprehensive accounts by George Gibson (Gibson, 1956, 1958; Gibson and Freeman Jr, 1967) on the introduction of the Virginia Corporation Law, and by Stanley Siegel (Siegel, 1970) on the Michigan Business Corporation Act. Gibson and Freeman Jr (1967) is particularly useful as it includes a list of all the states that adopted the MBCA up to 1967 and the year of adoption. Finally, I also found value in the more recent retrospective of the MBCA by Booth (2000), and the foreword on the state of corporate law

in 1983 by Goldstein and Hamilton (1983) who wrote the Revised MBCA.

Table 1 documents the year of the new law in each adopting state, divided into two groups, complete and partial adoptions. I define two variables from this data. *All Acts* is a binary variable equal to 1 if any of the acts has been adopted by a state and zero otherwise, and *MBCA Adopted* is a binary variable equal to 1 only for complete adoptions and 0 otherwise. *MBCA Adopted* is the main explanatory variable used in this paper.

3.3 Summary Statistics

Table 2 presents the summary statistics for each of the variables in the data. There are 1,748 observations. Twenty-nine percent of the observations have a new corporate act, and twenty-two percent have a new act that adopted the MBCA. The number of annual local corporations and partnerships founded in a state is on average 3709 and 264, respectively. There is substantial skewness in these measures which is driven by the skewed distribution of population and economic activity across U.S. states. The number of local and foreign Delaware companies is lower but meaningful.

Figure 1 provides a sense of the evolution of firm registrations in the U.S. by plotting each variable over time, with the y-axis in log scale. We observe a clear log-linear trend in the data, consistent with firm formation growing on a balanced growth path on par with the broader U.S. economy. This log-linearity supports the idea of including variables in their log form in the regression analysis. The slope of the curves reflects annual average growth on the firm formation rate itself between 1.1% and 1.9%, depending on the measure. Delaware local firm counts grew at 1.1% while Delaware foreign firms grew at 1.2%, a difference that is not statistically significant in

the data.

4 Empirical Model

This paper focuses specifically on the rate at which new local corporations are founded relative to the incidence of foreign Delaware firms, which are used as a proxy measure for the underlying economic activity of a region.⁹ The dependent variable of interest is the log ratio between local corporations and foreign Delaware firms. Specifically, for each state s at year t, the goal of this paper is to estimate

$$Log(\frac{Local \ Corporations_{s,t}}{Foreign \ Delaware_{s,t}}) = \alpha + \beta \times M_{s,t} + \gamma_s + \delta_t + \epsilon_{s,t}$$
(1)

Where $M_{s,t}$ is an indicator equal to one if the state has adopted the MBCA law (and zero otherwise), γ_s is a state fixed effect, δ_t is a year fixed effect, and $\epsilon_{s,t}$ is random noise. Standard errors are double clustered by state and year.

The advantage of this specification is that it forces the coefficient of $Foreign \ Delaware_{s,t}$ to one, thus allowing β to be interpreted as the change in the registration of local corporations relative to the registration foreign Delaware registrations for that state and year.

When year-by-year coefficients are reported, the model instead estimates a coefficient β_{τ} where τ indicates the number of years after the new act goes into effect, taking a negative value for years before the act. The baseline category in these models is the year right before the act is adopted (i.e., $\tau = -1$, the last full year the prior corporate law is in effect). The estimating equation is

⁹Econometrically, this is consistent with forcing the coefficient for *Log(Foreign Delaware)* to be one.

$$Log(\frac{Local \ Corporations_{s,t}}{Foreign \ Delaware_{s,t}}) = \alpha + \beta_{\tau} \times M_{s,\tau} + \gamma_s + \delta_t + \epsilon_{s,t}$$
(2)

5 Results

We now advance to the core of the paper, estimating the impact of the legal improvements brought on by the adoption of the MBCA on entrepreneurship. To do so, the paper first introduces the evidence for policy endogeneity. Then, I present the main estimates for the impact of corporate law improvements on entrepreneurship evidenced through the adoption of the MBCA. The reported estimates include average effects and plots of annual coefficients. This is followed by several robustness tests using different dependent variables and subsamples, and placebo tests using the states that were incomplete adopters of the MBCA. Finally, heterogeneity by location and time period are reported.

5.1 Evidence of Policy Endogeneity

The main empirical difficulty is that there is likely policy endogeneity in the introduction of a new corporate act under a two way fixed effects model (i.e., state and year fixed effects). Because introducing a new corporate act is a difficult legislative process, the states that introduce it are likely to have unique needs leading them to do so—such as a growing local economy which, in turn, causes the local business community to demand more sophisticated corporate law to operate.

Figure 2 presents evidence on this policy endogeneity by plotting the annual coefficients estimated under the model of equation (2), and their 95-percent confidence intervals. The policy endogeneity is apparent. There is a positive and increasing trend in the level of local corporations

up to seven years before the act goes into effect, even after controlling for year fixed effects. This suggests that there is some localized economic condition occurring in the state that is correlated with the adoption of the law. Once the new law goes into effect, the trend in the number of annual firms flattens, and the increase becomes more gradual.

Figure A2 elucidates a similar relationship by considering an alternative measure of policy endogeneity using the number of local corporations being registered in states neighboring the focal one. Since the number of corporations in neighbor states is independent from the adoption of law in the focal state, but is still correlated to local economic conditions, it allows us to assess the presence of a localized economic boom without the legal changes. We once again observe a positive pre-trend before the adoption of the new law.

Next, we consider this pattern again with the main control variable of this paper, the number of foreign Delaware registrations in the state. In the bottom panel of Figure 2, we report the coefficients of model (2) using the log of foreign Delaware firms as the dependent variable. There is a similar postive pre-trend before the policy is adopted.¹⁰ However, in contrast to the local corporations, the number of foreign Delaware firms actually drops after the corporation act is adopted.

5.2 Main Effect

We now move on to the main analysis. We begin by considering whether pre-trends in policy endogeneity are controlled for under the proposed identification approach. This is the main assumption of the identification strategy in this paper. Figure 3 reports the annual coefficients of equation (2), with the log ratio of local corporations to foreign Delaware firms as the dependent

¹⁰Figure A1 reports coefficients for up to 15 years before the act.

variable. The trend is now flat before the adoption of the new law, and the average level of entrepreneurship is very close to zero, suggesting that pre-trends are controlled for.

Several additional tests are presented in the Appendix support this conclusion. Figure A3 repeats the same analysis as Figure 3 but allows fifteen years of pre-trends to consider the possibility of longer lags. The results again show no pre-trend. Figures A4 and A5 modify the outcome variable for additional robustness. Figure A4 uses instead Log[(Local Corporations+1)/(Foreign Delaware+1)] to avoid dropping any zero values. Figure A5 expands the dependent variable to Log[Local Corporations/(Foreign Delaware+New York Firms + Ohio Firms + New Jersey Firms)] to include a fuller picture of all firms in the economy. Both figures once again report no pre-trends and a mean value of zero. Finally, Figure A6 reports a different specification for difference-in-differences estimator proposed by de Chaisemartin and D'Haultfœuille (2020), who emphasize in recent work that treatment heterogeneity can bias estimates in difference-in-differences estimators,¹¹ and propose a new estimator that is robust to these problems. Once again, there is no appreciable pre-trend.

Having established the absence of pre-trends, we now consider the direct effect of corporate law on entrepreneurship. Figure 3 reports a stable, positive, and significant effect starting one year after the law goes into effect. The mean value for the coefficients after the year of adoption is 0.25. The main difference-in-differences effect is more clearly estimated through equation (1), reported in Table 3. Columns (1) and (2) show preliminary regressions on the correlation of *MBCA Adopted* to the level of local corporations. The coefficients are noisy and negative, possibly due to the fact that smaller states were more likely to adopt the law. The main estimate is Column (3), which

¹¹In essence, de Chaisemartin and D'Haultfœuille (2020) highlight that treatment heterogeneity can lead to negative weights in some observations, which can make the diff-in-diff estimate be different (and even the opposite sign), than the average treatment effect.

includes both state and year fixed effects. The coefficient is positive and significant, at 0.235. This estimate implies that the improvements in corporate law brought about through the adoption of the MBCA increased the number of local corporations by 26% (i.e., $e^{0.235}$), on average.

Table 4 now considers other outcomes to shed light on whether the changes in firm formation represent new firms being created in the economy or instead substitution from other firm types. Columns (1) and (2) report a negative, though noisy, relationship between the adoption of new corporate law and the incidence of local partnerships and local Delaware firms, respectively. This suggests the possibility that at least some of the new firm formation represents substitution from firm types that would have taken place under the prior legal regimes. Columns (3) to (5) change the denominator of the dependent variable to report regressions that study the number of corporations relative to local partnerships, corporations relative to local Delaware firms, and both together. The coefficients all hover around -0.4. Together, this evidence suggests that about 40 percent of new corporations represent substitution from other firm types, that pulled a similar share from both local partnerships and local Delaware firms.

Table 5 considers a series of robustness tests by including different control variables, subsamples, and dependent variables. Column (1) controls directly for the local corporations in neighbor states to better control for local economic conditions. The coefficient is practically unchanged. Column (2) focuses more closely on the changes around the timing of treatment by dropping all observations for treated states that occur ten years after treatment. The main estimate is now more precise and very close in magnitude. Columns (3) and (4) use two other proxies for the local economy instead of the count of foreign Delaware firms as the denominator in the dependent variable. Column (3) brings together the different measures of foreign firms in the data—foreign Delaware, New Jersey, New York, and Ohio. The coefficient is practically the same.

This is consistent with the fact that, while the economic activity from these states was meaningful, it represented much less than Delaware firms in interstate commerce. Column (4) uses the number of neighbor corporations as the reference category. The coefficient is positive and, in this case, larger in magnitude.

Finally, Table 6 reports robustness tests that use the log of local corporations directly as the dependent variable and include the foreign Delaware firms as a control. This is not the preferred approach, since it does not allow estimating relative changes directly. However, it allows the possibility of implementing one more robustness tests by using the instrumental variables approach of Freyaldenhoven et al. (2019). Under this approach, it is possible to purge the effect of omitted variables through the use of an endogenous proxy variable that is then instrumented by the forward lag of treatment. As the results so far have shown, the count of foreign Delaware firms is a good proxy for the changing local economic conditions. Column (1) reports the OLS regression. Column (2) implements the instrumental variables using LIML since the instrument is slightly weak, with a reported F-statistic of 2.8. The resulting estimates are once again the same.

Together, these results provide robust evidence of the positive direct impact of legal improvements on the level of local corporations across U.S. states. The number of local corporations increased 26% on average. About 40% of that increase appears to be substitutions from other types of corporate forms, with the remainder being net new firms.

5.3 Placebo Tests

We next consider several placebo tests that further allow assessment of the validity of the estimated effect in Table 7. Columns (1) and (2) use as an independent variable the introduction of other

corporate acts that are not modeled after the MBCA, and that (as reported in Section 2) do not encompass the principles of better corporate law in the Model Act. In contrast to the effect of the MBCA, the coefficient is now negative and noisy, suggesting that these other acts had no effect on firm formation. A graphical representation of these effects is reported in Figure 4. We do not observe any pre-trends, but it appears that the new law does not lead to any increase in firm formation.

Column (3) uses a different dependent variable, the corporations of neighbor states (divided by foreign Delaware). The idea of this test is that if there remains endogeneity after the approach of controlling for foreign firms in the form of a local economic change, then we will see the introduction of the MBCA in the focal state also be correlated with an increase in firm registrations in neighboring states.¹² Since these neighboring states are not affected by the law, a positive coefficient would suggest some residual endogeneity. Consistent with the idea that the control approach works, the coefficient of the MBCA act in Table 7 is zero.

5.4 Heterogeneous Effects: State Development and Time Period

Finally, we consider several heterogeneous effects on the characteristics of the states that adopted the act. In Table 8, we begin by using differences across groups of states, including smaller and larger states, as well as those in the South, West, and Midwest. Besides allowing an assessment of the heterogeneity in treatment, this sub-sample analysis may also serve as an additional mechanism test. Given that the MBCA act advanced states institutionally to a similar level, we might expect those that had more rudimentary institutions ex-ante to benefit more from adopting it.

We begin in columns (1) and (2) by considering a simple definition of small and large states:

¹²Figure A3 shows that these two variables are correlated at base.

those that are above or below the median in the number of new firms registered in 1946, the beginning of the analysis period. Consistent with the idea that the state implementations of the MBCA created institutional improvements, the estimated treatment effect is much higher for small states than for large states. Columns (3) to (5) compare the South, West, and Midwest. The South and West have treatment effects around the same order of magnitude as the main effect, while the Midwest (which similarly already had a more developed business environment) has a much smaller coefficient.

Table 9 reports the coefficients across distinct time periods. Column (1) considers only those states that adopted the MBCA before 1960, column (2) contains those that adopted it between 1960 and 1969, and column (3) excludes the six states that adopted it in 1965. The results appear broadly quite similar, suggesting that the improvements in firm formation were not due to the timing of the implementation of the act.

Finally, for completeness, Appendix Figure A7 plots the individual coefficients in a regression that estimates a treatment effect for each treated state. While these coefficients should be interpreted cautiously, the pattern of a strong positive average treatment effect is apparent.

6 Conclusion

This paper provided an initial study of whether good corporate law can directly increase entrepreneurship, by considering the experience of U.S. states in the mid twentieth century, when many states improved corporate law by adopting the Model Business Corporation Act. While the policy is endogenous, an econometric approach using out of state expansions as a proxy for local conditions allows estimating the *direct* benefit of the law. The results report that the new law on average increased corporations by 26%, around four tenths of which was substitutions from other firms, and the rest of which was net-new firms. The effects are larger in states with more rudimentary institutions and in states where the adoption of the law is complete, and not partial. The indirect benefits of the law, such as a generalized improvement of the economy in multiple ways, are not estimated in this paper; this is an important avenue for future work, as such benefits might be substantial.

At a policy level, these results suggest that the adequate tuning and updating of law is an important aspect of a functioning economy. Legislating well matters. It is useful to highlight that the law studied here was a compendium of nation-wide best practices developed by a single organization (the American Bar Association), which the individual corporate law acts copied closely. This implies that good corporate law principles have commonality across jurisdictions, albeit within the limited heterogeneity across U.S. states. The experience of the MBCA further shows that a significant hurdle to the introduction of better law is the cost of developing this law, and that guidelines, best practices, templates, and model acts, can make this process more efficient.

These insights are only a first set of results in a rich avenue of inquiry. More work is needed to fully understand the role of law in the development of financing and entrepreneurship, and the way in which the legal environment can support the process of creative destruction and ultimately drive development and economic growth.

References

Daron Acemoglu and Simon Johnson. Unbundling institutions. *Journal of political Economy*, 113 (5):949–995, 2005.

Daron Acemoglu and James A Robinson. Why nations fail: The origins of power, prosperity, and

poverty. Crown Books, 2012.

- Graeme G Acheson, Gareth Campbell, and John D Turner. Private Contracting, Law and Finance. *The Review of Financial Studies*, 32(11):4156–4195, 02 2019.
- P Aghion and P Howitt. A model of growth through creative destruction. *Econometrica*, 60(2), 1992.
- Ajay Agrawal, Carlos Rosell, and Timothy Simcoe. Tax credits and small firm r&d spending. *American Economic Journal: Economic Policy*, 2020.
- Ufuk Akcigit and William R Kerr. Growth through heterogeneous innovations. *Journal of Political Economy*, 126(4):1374–1443, 2018.
- American Bar Assoc. Recent adoptions of the model business corporation act, 1965.
- Raymond J Andrews, Catherine Fazio, Jorge Guzman, Yupeng Liu, and Scott Stern. The Startup Cartography Project. *Working Paper*, 2020.
- John Armour and Douglas Cumming. Bankruptcy Law and Entrepreneurship. *American Law and Economics Review*, 10(2):303–350, 08 2008. ISSN 1465-7252. doi: 10.1093/aler/ahn008. URL https://doi.org/10.1093/aler/ahn008.
- Tania Babina and Sabrina T Howell. Entrepreneurial spillovers from corporate r&d. Technical report, National Bureau of Economic Research, 2018.
- Daniel Berkowitz and Karen Clay. American civil law origins: implications for state constitutions. *American Law and Economics Review*, 7(1):62–84, 2005.
- Richard A. Booth. A chronology of the evolution of the mbca. *The Business Lawyer*, 56(1):63–67, 2000.
- Laura Bottazzi, Marco Da Rin, and Thomas Hellmann. The importance of trust for investment: Evidence from venture capital. *The Review of Financial Studies*, 29(9):2283–2318, 2016.
- James R Brown, Gustav Martinsson, and Bruce C Petersen. Law, stock markets, and innovation. *The Journal of Finance*, 68(4):1517–1549, 2013.
- James R Brown, J Anthony Cookson, and Rawley Z Heimer. Law and finance matter: Lessons from externally imposed courts. *The Review of Financial Studies*, 30(3):1019–1051, 2016.
- Whitney Campbell. The model business corporation act. *The Business Lawyer*, pages 98–110, 1956.
- Clément de Chaisemartin and Xavier D'Haultfœuille. Two-way fixed effects estimators with heterogeneous treatment effects. American Economic Review, 110(9):2964–96, September 2020. doi: 10.1257/aer.20181169. URL https://www.aeaweb.org/articles?id= 10.1257/aer.20181169.

- Matthew Denes, Xinxing Wang, and Ting Xu. Financing entrepreneurship: Tax incentives for early-stage investors. *Working Paper*, 2019.
- Simeon Djankov, Rafael La Porta, Florencio Lopez-de Silanes, and Andrei Shleifer. The regulation of entry. *The quarterly Journal of economics*, 117(1):1–37, 2002.
- Catherine Fazio, Jorge Guzman, and Scott Stern. The impact of state-level research and development tax credits on the quantity and quality of entrepreneurship. *Economic Development Quarterly*, 34(2):188–208, 2020. doi: 10.1177/0891242420920926. URL https://doi.org/10.1177/0891242420920926.
- Maryann P. Feldman. The Entrepreneurial Event Revisited: Firm Formation in a Regional Context. Industrial and Corporate Change, 10(4):861–891, 12 2001. ISSN 0960-6491. doi: 10.1093/icc/ 10.4.861. URL https://doi.org/10.1093/icc/10.4.861.
- Julian Franks, Colin Mayer, and Stefano Rossi. Ownership: Evolution and Regulation. *The Review* of Financial Studies, 22(10):4009–4056, 12 2008. ISSN 0893-9454. doi: 10.1093/rfs/hhn108. URL https://doi.org/10.1093/rfs/hhn108.
- Simon Freyaldenhoven, Christian Hansen, and Jesse M. Shapiro. Pre-event trends in the panel event-study design. American Economic Review, 109(9):3307–38, September 2019. doi: 10. 1257/aer.20180609. URL http://www.aeaweb.org/articles?id=10.1257/aer. 20180609.
- Wayne M Gazur. The limited liability company experiment: Unlimited flexibility, uncertain role. *Law & Contemp. Probs.*, 58:135, 1995.
- George D Gibson. The virginia corporation law of 1956. *Virginia Law Review*, pages 445–487, 1956.
- George D Gibson. Virginia's experience with the model business corporation act. *The Business Lawyer*, pages 706–717, 1958.
- George D Gibson and George C Freeman Jr. A decade of the model business corporation act in virginia. *Virginia Law Review*, pages 1396–1423, 1967.
- Elliot Goldstein and Robert W. Hamilton. The revised model business corporation act. *The Business Lawyer*, 38(3):1019–1029, 1983.
- Paul Alan Gompers and Joshua Lerner. The venture capital cycle. MIT press, 2004.
- Juanita Gonzalez Uribe and Daniel Paravasini. How sensitive is young firm investment to the cost of outside equity? evidence from a uk tax relief. *Working Paper*, 2019.
- Luigi Guiso, Paola Sapienza, and Luigi Zingales. The role of social capital in financial development. American Economic Review, 94(3):526–556, June 2004. doi: 10. 1257/0002828041464498. URL http://www.aeaweb.org/articles?id=10.1257/ 0002828041464498.

- Rainer Haselmann, Katharina Pistor, and Vikrant Vig. How law affects lending. *The Review of Financial Studies*, 23(2):549–580, 2009.
- Sabrina T Howell and Filippo Mezzanotti. Financing entrepreneurship through the tax code: Angel investor tax credits. Technical report, National Bureau of Economic Research, 2019.
- Tor Jakob Klette and Samuel Kortum. Innovating firms and aggregate innovation. *Journal of political economy*, 112(5):986–1018, 2004.
- Rafael La Porta, Florencio Lopez-de Silanes, Andrei Shleifer, and Robert W Vishny. Law and finance. *Journal of political economy*, 106(6):1113–1155, 1998.
- Lauren Lanahan and Maryann P Feldman. Approximating exogenous variation in r&d: Evidence from the kentucky and north carolina sbir state match programs. *Review of Economics and Statistics*, 100(4):740–752, 2018.
- David S Landes, Joel Mokyr, and William J Baumol. *The invention of enterprise: Entrepreneurship from ancient Mesopotamia to modern times.* Princeton University Press, 2012.
- Josh Lerner and Antoinette Schoar. Does legal enforcement affect financial transactions? the contractual channel in private equity. *The Quarterly Journal of Economics*, 120(1):223–246, 2005.
- Josh Lerner and Joacim Tåg. Institutions and venture capital. *Industrial and Corporate Change*, 22(1):153–182, 2013.
- Ross Levine, Chen Lin, and Lai Wei. Insider trading and innovation. *The Journal of Law and Economics*, 60(4):749–800, 2017.
- Duncan MacRae. The role of the state legislator in massachusetts. *American Sociological Review*, 19(2):185–194, 1954. ISSN 00031224. URL http://www.jstor.org/stable/2088400.
- R David McLean, Tianyu Zhang, and Mengxin Zhao. Why does the law matter? investor protection and its effects on investment, finance, and growth. *The Journal of Finance*, 67(1):313–350, 2012.
- Stanley Siegel. The proposed michigan business corporation act. University of Michigan Journal of Law Reform, 4(2):161–179, 1970.
- Adam Smith. The wealth of nations [1776], 1776.
- Peverill Squire. Measuring state legislative professionalism: The squire index revisited. *State Politics & Policy Quarterly*, 7(2):211–227, 2007.
- Rachel L Wellhausen et al. Sovereignty, law, and finance: Evidence from american indian reservations. *Quarterly Journal of Political Science*, 12(4):405–436, 2017.



Figure 1: Number of New Registrations by Year

Notes: The figure represents the annual number of new firms registered in the U.S. in four mutually exclusive groups of firms. The y axis is in a log-scale to reflect the exponential growth of population and the economy in this time-period. The observed log-linearity supports well the idea of using the log of firm counts in the analysis.



Notes: The top panel reports the annual coefficients for the number of local corporations—the variable that is likely to be impact by the new law—before and after the law is adopted. The points represent the estimated coefficient and the lines are the 95 percent confidence interval. The baseline category is the year before the new law starts (the last full year without the law). The pattern shows clear policy endogeneity: there appears to be a substantial economic boom before the law is adopted. The bottom panel shows the same analysis using foreign Delaware firms, who do not directly benefit from the new law. The pattern is similar in the pre-period, consistent with the idea that they both track localized economic fluctuations. The core empirical strategy in this paper is estimating the change in corporations relative to Delaware firms. The red dashed line represents the fitted values of all coefficients from t=-7 to t=0. Year and state fixed effects included. Standard errors are double-clustered by state and year.

Figure 3: Main Estimate



Notes: The figure reports the main effect of the paper: annual coefficients using the relative increase of local corporations compared to Delaware foreign registrations. The baseline category is one year before the law goes into effect. The red dashed line represents the fitted values of all coefficients from t=-7 to t=0. Year and state fixed effects included. Standard errors are double-clustered by state and year.

Figure 4: Placebo Test



Notes: The Figure reports the coefficients of the main model of Section 4 for acts that did not implement the MBCA fully, the measurement of which is described in Section 2. Consistent with the principle that law leads to entrepreneurship, there is no effect from the act.

| | Adoptions of MBCA | | | | | | | | |
|----------------|-------------------|------------------------------|-----------|--|--|--|--|--|--|
| State | Year | Source | In Sample | | | | | | |
| Oregon | 1953 | Campbell (1956) | Yes | | | | | | |
| Texas | 1955 | Campbell (1956) | Yes | | | | | | |
| Virginia | 1956 | Campbell (1956) | Yes | | | | | | |
| Alaska | 1957 | Gibson and Freeman Jr (1967) | Yes | | | | | | |
| North Dakota | 1957 | Gibson and Freeman Jr (1967) | Yes | | | | | | |
| Colorado | 1958 | Gibson and Freeman Jr (1967) | Yes | | | | | | |
| Iowa | 1959 | Gibson and Freeman Jr (1967) | Yes | | | | | | |
| Utah | 1961 | Gibson and Freeman Jr (1967) | Yes | | | | | | |
| Wyoming | 1961 | Gibson and Freeman Jr (1967) | Yes | | | | | | |
| Mississippi | 1962 | Gibson and Freeman Jr (1967) | Yes | | | | | | |
| South Carolina | 1962 | Gibson and Freeman Jr (1967) | Yes | | | | | | |
| Nebraska | 1963 | Gibson and Freeman Jr (1967) | No | | | | | | |
| Missouri | 1965 | Gibson and Freeman Jr (1967) | Yes | | | | | | |
| Pennsylvania | 1965 | Gibson and Freeman Jr (1967) | No | | | | | | |
| Wisconsin | 1965 | Gibson and Freeman Jr (1967) | Yes | | | | | | |
| Arkansas | 1965 | American Bar Assoc. (1965) | Yes | | | | | | |
| Washington | 1965 | American Bar Assoc. (1965) | Yes | | | | | | |
| South Dakota | 1965 | American Bar Assoc. (1965) | Yes | | | | | | |
| Michigan | 1971 | Siegel (1970) | Yes | | | | | | |

Table 1: Adoption of Model Business Corporation Act

Other Corporation Acts only Partially Building from MBCA

| Oner corporation nets only Farmany Buttaing from inBerr | | | | | | | |
|---|------|---|-----|--|--|--|--|
| Maryland | 1951 | Gibson and Freeman Jr (1967) | Yes | | | | |
| North Carolina | 1955 | Campbell (1956), Gibson and Freeman Jr (1967) | Yes | | | | |
| Alabama | 1959 | Gibson and Freeman Jr (1967) | Yes | | | | |
| Connecticut | 1959 | Gibson and Freeman Jr (1967) | Yes | | | | |

| Variable | Mean | Std. Dev. | Ν |
|--|----------|-----------|------|
| MBCA Adopted | 0.22 | 0.42 | 1748 |
| Non-MBCA Corporate Act | 0.06 | 0.24 | 1748 |
| Local Corporations | 3709.35 | 8704.46 | 1748 |
| Local Partnerships | 263.5 | 1099.21 | 1748 |
| Local Delaware | 24.72 | 60.01 | 1748 |
| Foreign Delaware | 101.55 | 194.42 | 1748 |
| Neighbor State Corporations | 13631.48 | 18529.45 | 1748 |
| Log(Local Corporations/Foreign Delaware) | 3.26 | 1.04 | 1712 |
| Log(Local Partnerships/Foreign Delaware) | -0.21 | 2.07 | 1333 |
| Log(Local Delaware/Foreign Delaware) | -1.57 | 1.33 | 1208 |
| Log(Ohio Firms) | 2.19 | 1.8 | 1126 |
| Log(New York Firms) | 2.29 | 1.43 | 1254 |
| Log(New Jersey Firms) | 1.72 | 1.75 | 1032 |

Table 2: Summary statistics

| radie 5. main Estimate | Table 3: | Main | Estimate |
|------------------------|----------|------|----------|
|------------------------|----------|------|----------|

| (1) | (2) | (3) |
|---------|--|--|
| -0.261 | -0.196 | 0.235* |
| (0.224) | (0.251) | (0.134) |
| No | No | Yes |
| No | Yes | Yes |
| 1712 | 1712 | 1712 |
| 0.011 | 0.038 | 0.825 |
| | (1) -0.261 (0.224) No <u>No</u> 1712 0.011 | (1) (2) -0.261 -0.196 (0.224) (0.251) No No No Yes 1712 1712 0.011 0.038 |

OLS model .Dependent Variable is Log(Local Corporations/Foreign Delaware) Standard errors double clustered at the year and state levels. Significance denoted as: * p <0.10, ** p <0.05, *** p <0.01.

Table 4: Substitution from Other Outcomes.

| | (1) | (2) | (3) | (4) | (5) |
|--------------|---------------------------------------|--------------------------------------|---------------------------------------|--------------------------------------|--|
| | $Log(\frac{LocalPart.}{ForeignDel.})$ | $Log(\frac{LocalDel.}{ForeignDel.})$ | $Log(\frac{LocalCorps.}{LocalPart.})$ | $Log(\frac{LocalCorps.}{LocalDel.})$ | $Log(\frac{LocalCorps}{LocalPart.+LocalDel.})$ |
| MBCA Adopted | -0.254 | -0.137 | 0.396* | 0.456 | 0.433 |
| | (0.380) | (0.210) | (0.206) | (0.364) | (0.262) |
| Observations | 1333 | 1208 | 1214 | 1354 | 1597 |
| R^2 | 0.726 | 0.789 | 0.732 | 0.719 | 0.777 |

OLS model. Dependent variables are constructed relative to the number of Foreign Delaware firms. Columns (1) to (3) replace local corporations from the main dependent variable with local partnerships (Col (1)), local Delaware firms (Col (2)), and the neighbor state local corporations (Col (3)). State and year fixed effects are included. Standard errors double clustered at the state and year level. Significance denoted as: * p < 0.10, ** p < 0.05, *** p < 0.01.

Table 5: Robustness Tests.

| | (1) | (2) | (3) | (4) |
|---------------------------------|-------------|-----------------|---|---|
| | | Subsample | | |
| | Main Effect | Drop 10 years | $Log(\frac{LocalCorps.}{ForeignDel.+NY+OH+NJ})$ | $Log(\frac{LocalCorps.}{NeighborCorps.})$ |
| | | after treatment | | 5 |
| MBCA Adopted | 0.235* | 0.232** | 0.237* | 0.381** |
| | (0.124) | (0.102) | (0.136) | (0.166) |
| Log(Local Corp Neighbor States) | -0.0989 | | | |
| | (0.186) | | | |
| Observations | 1712 | 1511 | 1727 | 1746 |
| R^2 | 0.825 | 0.834 | 0.871 | 0.931 |

OLS model. Column (1) controls directly for the corporations in neighbor states. Column (2) drops all states after they have been treated for 10 years using *Log(Local Corporations/Foreign Delaware)* as the dependent variable. Column (3) includes firms from New York, Ohio, and New Jersey to the denominator count of all foreign firms. Column (4) uses a different proxy for the local economic cycle, the total number of local corporations in neighbor states. State and year fixed effects included in all regressions. Standard errors clustered at the state and year level. Significance denoted as: * p < 0.10, ** p < 0.05, *** p < 0.01.

 Table 6: Robustness Test: Absolute Change in Local Corporations.

| | (1) | (2) |
|------------------------------------|----------|-----------------------------|
| | OI S | Instrumental Variables |
| | OLS | Freyaldenhoven et al (2019) |
| | | LIML |
| MBCA Adopted | 0.222** | 0.240* |
| | (0.103) | (0.133) |
| | | |
| Log(Foreign Delaware) | 0.221** | 1.055 |
| | (0.0539) | (0.662) |
| Observations | 1712 | 1666 |
| R^2 | 0.114 | -1.185 |
| Kleibergen-Paap Weak Ident. F-Stat | | 2.792 |

OLS model. The dependent variable is Log (Local Corporations) and foreign Delaware firms are included as a control rather than the preferred specification that puts them as a ratio. Column (1) is the OLS model. Column (2) implements the approach in Freyaldenhoven et al (2019) in which an endogenous control is instrumented by the forward lag of the treatment variable (i.e., *MBCA Adopted*). State and year fixed effects included in all regressions. Standard errors clustered at the state and year level. Significance denoted as: * p < 0.10, ** p < 0.05, *** p < 0.01.

| Table 7 | : 1 | Placebo | Tests. |
|---------|-----|---------|--------|
|---------|-----|---------|--------|

| | (1) | (2) | (3) |
|------------------------|--|---|---|
| | $Log(\frac{LocalCorps.}{ForeignDel.})$ | $Log(\frac{LocalCorps.}{ForeignDel.+NY+OH+NJ})$ | $Log(\frac{NeighborCorps.}{ForeignDel.})$ |
| Non-MBCA Corporate Act | -0.302 | -0.200 | |
| | (0.309) | (0.201) | |
| | | | |
| MBCA Adopted | | | 0.0183 |
| | | | (0.142) |
| Observations | 1712 | 1727 | 1712 |
| R^2 | 0.823 | 0.869 | 0.902 |

OLS model. Columns (1) and (2) are placebo tests using ther adoption of corporate acts that are not the MBCA act. State and year fixed effects included in all regressions. Standard errors clustered at the state and year level. Significance denoted as: * p < 0.10, ** p < 0.05, *** p < 0.01.

| | (1) | (2) | (3) | (4) | (5) |
|--------------|--------------|--------------|-----------|-----------|-----------|
| | Subsample | Subsample | Subsample | Subsample | Subsample |
| | Small States | Large States | South | West | Midwest |
| MBCA Adopted | 0.567** | 0.212 | 0.232 | 0.269 | 0.0908 |
| | (0.180) | (0.148) | (0.184) | (0.304) | (0.181) |
| Observations | 706 | 1006 | 454 | 439 | 337 |
| R^2 | 0.852 | 0.808 | 0.798 | 0.758 | 0.841 |

Table 8: Heterogeneity by Location.

OLS model. Dependent variable is *Log(Local Corporations/Foreign Delaware)*. Small states are those below median firm formation in 1946, while large states are above the median. South includes all confederate states. West includes Colorado, Wyoming, Utah, Idaho, Alaska, Hawaii, Nevada, Oregon, Carlifornia, and Washington State. Midwest is Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, South Dakota, and Wisconsin. All regressions include state and year fixed effects. Standard errors are double clustered at state and year levels. Significance denoted as: * p < 0.10, ** p < 0.05, *** p < 0.01.

| Tał | ole | 9: | Heter | rogen | eity | by | Time | of | Ad | loption | of | MBO | CA. |
|-----|-----|----|-------|-------|------|----|------|----|----|---------|----|-----|-----|
|-----|-----|----|-------|-------|------|----|------|----|----|---------|----|-----|-----|

| | (1) | (2) | (3) |
|--------------|-------------------|-------------------|----------------|
| | Subsample | Subsample | Subsample |
| | Adopted 1950-1959 | Adopted 1960-1969 | Excluding 1965 |
| MBCA Adopted | 0.382* | 0.229 | 0.281** |
| | (0.218) | (0.139) | (0.136) |
| Observations | 1338 | 1421 | 1599 |
| R^2 | 0.818 | 0.842 | 0.815 |

OLS model. Dependent variable is *Log(Local Corporations/Foreign Delaware)*. Column (1) considers only states that adopted the MBCA between 1950 and 1959. Column (2) those that adopted between 1960 and 1969. Column (3) excludes the six states that adopted the MBCA in 1965. All regressions also include states that did not adopt the MBCA. State and year fixed effects included. Standard errors are double clustered at state and year levels. Significance denoted as: * p <0.10, ** p <0.05, *** p <0.01.

Appendix





Figure A2: Endogenous Policy: Alternative Measure.

Figure A3: Main Effect: 15 Year Pre-period.

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-5

Figure A4: Robustness Test: Adding +1 to Avoid Zeroes.

Figure A5: Robustness Test: Expanded Baseline Category.

0 5 Years to Adoption of MBCA Corporation Act 10

15

Figure A7: Heterogeneity: Individual Estimates by State.

Dep. Var.: Log(Local Corporations/Foreign Delaware)

This figure reports the individual coefficients from a regression that estimates the same model as in Section 4, but includes a different indicator for each state that introduces the MBCA. The baseline category are those states that do not introduce an MBCA. Standard errors are bootstrapped with 100 iterations.