

ISSN 1936-5349 (print)
ISSN 1936-5357 (online)

HARVARD

JOHN M. OLIN CENTER FOR LAW, ECONOMICS, AND BUSINESS

DELAWARE LAW AS LINGUA FRANCA: EVIDENCE FROM VC-BACKED STARTUPS

Brian J. Broughman, Jesse M. Fried & Darian Ibrahim

Discussion Paper No. 721

07/2012

Harvard Law School
Cambridge, MA 02138

This paper can be downloaded without charge from:

The Harvard John M. Olin Discussion Paper Series:
http://www.law.harvard.edu/programs/olin_center/

This paper is also a discussion paper of the
John M. Olin Center's Program on Corporate Governance.

Delaware Law as Lingua Franca: Evidence from VC-Backed Startups

Brian Broughman, Jesse M. Fried, and Darian Ibrahim

Last updated: July 26, 2012

Abstract

Why does Delaware dominate the market for corporate charters? Analyzing the incorporation and reincorporation decisions of 1,850 VC-backed startups, we show that firms often choose Delaware corporate law because it is the only law “spoken” by both in-state and out-of-state investors. Indeed, this “lingua-franca” effect is just as important as other factors that have been found to influence domicile decisions, such as corporate-law flexibility and the quality of a state’s judiciary. Our study provides further evidence that Delaware’s dominance is not necessarily due to the intrinsic quality of its corporate law.

JEL Classifications: K22, G24, G34

Keywords: incorporation, domicile, Delaware, corporate governance, entrepreneurs, founders, startups, corporation, corporate law, charters, venture capital

For helpful comments on this project, we are grateful to Michael Alexeev, Ola Bengtsson, Steven Davidoff, Victor Fleischer, Marcel Kahan, Eric Rasmusen, Larry Ribstein, Xuan Tian, and seminar participants at Indiana University, Notre Dame, the University of Wisconsin, the Transactional Law Vidyo Workshop, the 2011 Midwest Law and Economics Association conference, and the 2011 Law and Society Association annual meeting. We would also like to thank Edward Dumoulin, Ryan Finn, Josh Lipton, Rodan Luo, Jordan Mikes, Noah Priluck, and Chad Ranney for valuable research assistance, and the VC attorneys who shared their experiences with us.

1. Introduction

Delaware dominates the corporate chartering market in the U.S—it is the only state that attracts a significant number of out-of-state incorporations. As a result, incorporation decisions are “bimodal,” with public and private firms typically choosing between home-state and Delaware incorporation (Daines, 2002; Bebchuk & Cohen, 2003; Dammann & Schündeln, 2011).

Much ink has been spilled in the debate over whether Delaware’s dominance arose because it offers high-quality or low-quality corporate law. Under the “race-to-the-top” view, Delaware has prevailed because its law maximizes firm value (e.g., Winter, 1977; Romano 1985). Under the “race-to-the-bottom” view, Delaware has won by offering corporate law that favors insiders at other parties’ expense (e.g., Cary, 1974; Bebchuk, 1992).

But a firm today may choose Delaware law not solely because of its inherent quality but rather because, after decades of Delaware’s dominance, business parties—including investors and their lawyers—are now more *familiar* with Delaware law than the laws of other states (Klausner, 1995; Kahan and Klausner, 1997). Indeed, the bimodal pattern of domiciling is itself strong evidence that business parties are familiar only with their home states’ corporate law and Delaware’s (Daines, 2002). To date, however, there is little evidence as to whether familiarity causes firms to charter in Delaware rather than in their home state.

In this paper, we seek to test the familiarity explanation for Delaware’s success vis-à-vis home states by examining the effect of investor location on firms’ domicile choices. We hypothesize that, if the typical business party is “bilingual” in Delaware law and the law of its own home state, and familiarity with corporate law matters, a firm will be more likely to incorporate in Delaware rather than its home state if it receives financing from out-of-state investors. In other words, Delaware law can be expected to serve as a “lingua franca”: firms seeking out-of-state investors will be more likely to use Delaware law so they can provide a common language to all their investors.

To test for a lingua-franca effect, we exploit a database of 1,850 VC-backed firms. For each firm, the database provides precise information on the firm’s location, the identity and location of its investors, and changes in the firm’s domicile as its investor base evolves over time. If the use of Delaware law is in part driven by familiarity considerations, firms financed at least partially by out-of-state (foreign) investors should be more likely to domicile in Delaware than firms financed entirely by in-state investors.

We find, consistent with the lingua-franca hypothesis, that the number of out-of-state investors significantly increases the likelihood of Delaware incorporation. Everything else being equal, moving from zero to two out-of-state investors in the first round of financing increases the likelihood of Delaware incorporation by 14 percentage points (from 68% to 82%). Similarly, each additional out-of-state investor increases the likelihood that a firm will reincorporate in Delaware in a follow-on round of financing by approximately four to six percentage points.

We also study the different effects on startup domicile choice of (1) out-of-state investors who have some familiarity with home-state corporate law because they have previously invested in a home-state domiciled firm and (2) out-of-state investors who do not have such exposure to home-state corporate law. Consistent with the lingua-franca effect, we find that a startup is less likely to incorporate in Delaware if its out-of-state VC investors have already invested in firms incorporated in the startup's home state, and thus have greater familiarity with home-state corporate law. Demand for Delaware law is greatest when a firm receives financing from out-of-state VCs that appear to have no prior exposure to the startup's home-state corporate law.

Our results are statistically significant and robust to alternative econometric specifications. We control for numerous factors that may affect choice of domicile, including startup firm characteristics, law firm representing the startup firm, VC reputation, characteristics of home-state corporate law, and the inclusion of state, year, round, and sector dummy variables.

To determine whether unobserved differences between firms receiving in-state rather than to out-of-state financing are driving our results, we use three identification strategies. First, taking advantage of the longitudinal variation in our data, we use first-differences regression analysis to investigate whether the arrival of out-of-state investors causes firms originally incorporated in their home states to reincorporate in Delaware in subsequent rounds of financing. Second, we construct an instrumental variable for the number of out-of-state investors, and then estimate a two-stage least squares model. Third, we use individual VC investments into portfolio firms to estimate a VC fixed-effect model. In each of these tests, we find results consistent with the lingua-franca hypothesis. Firms receiving financing from out-of-state VC investors, particularly those lacking prior exposure to the startup's home-state corporate law, are significantly more likely to incorporate (or reincorporate) in Delaware.

Not surprisingly, other factors besides the lingua-franca effect also affect domicile choice. Consistent with Kahan's (2006) study of public firms, we find that states with a high-quality judiciary and more flexible corporate law are somewhat more likely to retain in-state corporations. And consistent with Daines's (2002) study of IPO firms, we find that startups represented by regional rather than national law firms are more likely to incorporate in their home states. Our results suggest, however, that choice of legal domicile may depend as much on the lingua-franca effect as on these other factors.

This project contributes to the empirical literature on corporate charters in two respects. First, it identifies another factor driving domicile decisions. Researchers have studied a variety of considerations that affect public firms' choice of domicile, including anti-takeover statutes (Subramanian, 2002; Bebchuk & Cohen, 2003; Ferris et. al. 2006), flexibility and judicial quality (Kahan, 2006); franchise taxes (Romano, 1985); and whether the corporation's law firm is regional or national (Daines, 2002). Researchers have also found that veil piercing rules and judicial quality affect incorporation choices of private firms (Dammann & Schündeln 2011). Our study suggests that investor familiarity with corporate law also matters.

Second, our study provides the first rigorous empirical support for the proposition that Delaware’s success is not due solely to the inherent quality of its corporate law, but rather in part to investors’ familiarity with it. Our study suggests that there is a potentially large hurdle for home states or other states seeking to capture incorporations. To the extent Delaware law is not optimal, a competing state would not only need to provide “better” law, it would also need to overcome learning costs that may prevent parties from adopting the alternative law (Kahan & Klausner, 1997). This barrier to competition may hinder desirable state-level innovation (Carney, Shepherd, & Shepherd, 2011) and lead to lower-quality corporate law across the nation.

While our study focuses on private firms, it is worth mentioning its implications for the domicile choices of publicly-traded firms. If the need to raise capital from a mix of in-state and out-of-state investors leads private firms to choose Delaware law to provide a lingua franca for all of their investors, it stands to reason that firms wishing to sell their shares to mostly out-of-state public investors through an IPO may also choose Delaware law in part to provide a common language to their shareholders.

The remainder of paper is organized as follows. Section 2 explains how investor familiarity with corporate law may affect choice of domicile in VC-backed startups, and generates a testable ‘lingua-franca’ hypothesis. Section 3 describes our data set and provides summary statistics on 1,850 firms’ states of incorporation and reincorporation. Section 4 provides baseline empirical results, testing our hypothesis with both cross-sectional and longitudinal data. Section 5 uses instrumental-variable and VC fixed-effect regressions to address potential endogeneity concerns in the baseline results. Section 6 considers alternative explanations for the correlation between out-of-state investors and Delaware incorporation. Section 7 concludes.

2. Domicile Familiarity and the Lingua-Franca Hypothesis

A firm located in a particular state is generally permitted to incorporate in any other state, and to thereby have its internal affairs governed by that other state’s corporate law (Easterbrook & Fischel, 1991).¹ Incorporation decisions are “bimodal”: firms typically select between home-state and Delaware incorporation, with most public and large private firms choosing Delaware (Daines, 2002; Bebchuk & Cohen, 2003; Dammann & Schündeln, 2011).

Delaware’s dominance of the market for out-of-state incorporations has been attributed to inherent features of its corporate law.² Depending on one’s perspective, these

¹ As we will explain later, an important exception is California, which seeks to subject California-based firms that are domiciled in other states to certain provisions of California corporate law.

² By a state’s “corporate law,” we mean (1) the state’s corporation statute; (2) decisional (case) law, and (3) the possibility of having a dispute adjudicated in that state’s courts. By “inherent features” or “inherent quality” of a state’s corporate law, we mean all aspects of the corporate law other than investors’ familiarity with it.

features either maximize value for shareholders (Winter, 1997; Romano 1985) or maximize value for insiders at other parties' expense (Cary, 1974; Bebchuk 1992).³

But whatever the reasons for its historic success, Delaware may now succeed in attracting firms in large part because business parties – investors and their lawyers – have become more *familiar* with Delaware law than most other states' laws (Kahan and Klausner, 1997). To the extent that familiarity drives firms' decisions to incorporate in Delaware, the outcome may be sub-optimal: firms may choose Delaware even though its corporate law does not maximize value for shareholders (Kahan and Klausner, 1997).⁴

As Daines (2002) notes, the bimodal domicile distribution is itself strong evidence that familiarity shapes incorporation decisions. Californians' willingness to use only Delaware and California law, and not New York law, and New Yorkers' willingness to use only Delaware and New York law, and not California law, is unlikely to be due to deficiencies in the inherent features of New York and California law (which, after all, are good enough for thousands of their respective in-state firms). Rather, it is likely due to business parties being "bilingual," which is to say that they "speak" only the corporate laws of their home states and Delaware (Daines, 2002).⁵

However, even if investor familiarity with Delaware law contributes to the observed bimodal domicile pattern, it may not affect firms' decisions to incorporate in Delaware instead of in their home states. For example, a California-based firm may choose to domicile in Delaware rather than at home because of the inherent features of Delaware law, and not because the parties are more familiar with Delaware than California law. In other words, familiarity may give rise to a bimodal distribution of domiciles but not shift firms from one mode in the bimodal distribution (home-state domicile) to the other (Delaware).

In this project we explore whether familiarity drives firms to Delaware from their home state. We predict that a firm will be more likely to incorporate in Delaware if it receives financing from out-of-state investors, who are likely to be unfamiliar with the firm's home state law. In other words, Delaware law may serve as a lingua franca: firms that want to attract out-of-state investors will tend to use Delaware rather than home-state law so as to provide a common language for all of their investors, both in-state and out-of-state, much as English is used in international business transactions even when it is not everyone's mother tongue.

The lingua-franca hypothesis cannot easily be tested using public firm data because there are no public firms whose investors are all (or even predominantly) located in a single state. Put another way, there is no control group of public firms that lack out-of-state investors. That leaves private firms. We focus on VC-backed startups, which we

³ For an argument that Delaware's main source of competition is now the federal government, see Roe (2003).

⁴ For an analysis of why Delaware corporate law may in fact be worse than that of many other states, see Carney and Shepherd (2009). For explanations for why Delaware may benefit from offering sub-optimal corporate law, see Branson (1990); Fisch (2000); Kamar (1998) and Macey & Miller (1987).

⁵ Carney, Shepherd, & Shepherd (2011) provide survey evidence indicating that lawyers advise local firms going public to incorporate in Delaware or their home states because they are not familiar with other states' laws.

believe provide a desirable setting for testing the lingua-franca hypothesis for three main reasons.

First, familiarity with corporate domicile likely matters to entrepreneurs and VCs. In each VC financing round, the firm must create a complex set of contracts whose drafting and implementation are dependent on subtle features of the state's corporate law (Fried and Ganor, 2006).⁶ VCs will be reluctant to contract under an unfamiliar body of corporate law.⁷ If asked to do so, a VC is likely to demand a lower price for the firm's shares (i) to protect the VC from potential opportunism or (ii) to compensate the VC for the cost of learning a new body of law (Rasmusen, 2001; Bengtsson & Bernhardt, 2012).

Second, unlike both public firms and typical private firms, VC-backed startups exhibit considerable variation in their mix of investors while they are still private. Many startups are financed exclusively by in-state investors, while others receive part of their financing from out-of-state VCs. We can exploit this variation in investor location across firms to determine whether familiarity affects domicile choice.⁸

Third, VC-backed startups typically receive financing over several rounds (or stages) of investment (Gompers, 1995). Each round is separately negotiated and the identity of the participating investors often changes from one round to the next (Broughman and Fried, 2012). Reincorporation often occurs in connection with a new round of financing. We can thus exploit longitudinal variation in a firm's investor base to create another test for the effect of investor location on domicile choice.

All of this leads to our lingua-franca hypothesis: *All else being equal, the likelihood that a firm will incorporate in (or reincorporate into) Delaware as opposed to its home state increases with the number of out-of-state VCs financing the firm.*

3. Data

We move now from describing the lingua-franca hypothesis to testing it. This section describes our data and provides summary statistics on state of incorporation and reincorporation for the firms in our sample.

⁶ Indeed, there is evidence that choice of domicile can affect how M&A sale proceeds are allocated between VCs and other shareholders (Broughman and Fried, 2010).

⁷ As one Silicon Valley VC lawyer told us, "VCs don't want to learn the corporate-law rules of a new state. Everyone knows [the] Delaware rules, whereas states like Washington and Minnesota might have weird dissenter rights, so why bother?"

⁸ Because a VC's attorney will handle legal issues arising from a portfolio investment and thus may have a stronger preference over domicile than the VC itself, it might be argued that the location of the VC's attorney is what matters, not the location of the VC. But VCs typically are advised by lawyers located in their state, either by a local law firm or, increasingly, in-house counsel (Kobylarz, 2006). Thus, we will assume that VCs and their attorneys are located in the same state.

3.1. Data Sources

Data was obtained from the VentureXpert (VX) database provided by Thomson Financial. Our sample is limited to US-based startups that received at least \$5 million in disclosed VC financing and received their first round of VC investment between January 1, 2000 and December 31, 2002. These criteria yield a sample of 1,998 startup firms.⁹

Because VX does not include firm domicile in its database, we use Lexis-Nexis public records data and the Delaware Secretary of State's webpage to match each firm in our sample with incorporation records from the secretary of state.¹⁰ Matching based on the firm name provided by VX, we identified state of incorporation for 1,850 out of 1,998 firms in our original sample, a 93% match rate. These 1,850 firms received a total of 6,217 rounds of financing.

We also interviewed ten attorneys from various states who regularly represent VCs and VC-backed startups. These interviews were used, among other things, to help us identify legal considerations and other factors that may affect choice of legal domicile.

3.2. Sample Description

Table 1 provides descriptive statistics for the 1,850 firms in our sample. Sample firms are primarily high-tech businesses, with almost half in a computer-related sector (panel D). Startups in our sample received, on average, \$36.8 million over 3.6 rounds of VC financing (panel A). The median firm received funding from 5 different investors, of which 2 were out-of-state investors. There is considerable variance, however, in all of these financing measures.

Panel C shows exit outcomes as reported by VX. Of the 1850 firms, approximately one third of the sample firms had an exit – either an IPO (n=103) or a private sale (n=536). The remaining two thirds were, as of 2008, either defunct (n=295) or active (n=916).¹¹ The relatively low number of IPOs reflects the poor market conditions that prevailed during most of the time period.

[ADD TABLE 1 ABOUT HERE]

⁹ We collected the data in 2008. Because VentureXpert appears to have since added information about other firms not in the database in 2008, the same criteria would yield a larger sample if the data were collected today. However, we have no reason to believe that increasing the sample size would significantly affect our results.

¹⁰ Lexis-Nexis public records data includes domicile data (via secretary-of-state filings) for locally domiciled firms of all states except Delaware. Information about Delaware domicile was obtained from (a) doing-business forms filed by Delaware-domiciled firms in their home states and (b) the Delaware's Secretary of State webpage (<https://delecorp.delaware.gov/tin/GINameSearch.jsp>).

¹¹ Some firms reported as "active" may be defunct or have had successful exits that were not disclosed to VX.

3.3. *State of Incorporation & Reincorporation*

For each firm in our sample, we collect data on the initial state of incorporation and any subsequent reincorporation. Consistent with studies of public firms (Daines, 2002; Bebchuk & Cohen, 2003) and private firms (Dammann & Schundlein, 2011), we find that startup firms typically make a binary choice, incorporating either in their home states or in Delaware. Table 1 (panel B) shows that just over two-thirds (67.8%) of sample firms choose Delaware as the initial state of incorporation, and, of the remaining 32.2%, most (28.7%) incorporate in their home states. Only 3.5% of sample firms choose to incorporate in a jurisdiction other than Delaware or their home states.

This bimodal pattern is even more pronounced at the final state of incorporation.¹² Figure 1 displays each firm's final state of incorporation relative to its headquarter location. The horizontal axis represents the firm's location, while the vertical axis is the state of incorporation. Approximately 98% of firms choose to incorporate either in their home states (the diagonal cluster of points) or in Delaware (the horizontal cluster of points).

[ADD FIGURE 1 ABOUT HERE]

When reincorporation occurs, it is almost always into Delaware. Moving from the initial to the final state of incorporation, Delaware's share increases from 67.8% to 78.8%, while home-state share declines from 28.7% to 19.4% and other states' share declines from 3.5% to 1.8% (Table 1, Panel B). Almost one third of firms originally incorporated in their home states reincorporate into Delaware.

Table 2 provides more detailed data on reincorporation activity in our sample. A total of 217 firms reincorporated, out of which 205 (approximately 95%) switched into Delaware. This change is typically made in connection with a new round of financing, often the first or second round [Table 2, panel B].

[ADD TABLE 2 ABOUT HERE]

3.4. *Investor Location and Delaware Incorporation*

Table 3 reports the likelihood of Delaware incorporation depending on the mix of in-state and out-of-state investors. Results are separately displayed for first-round financings (Panel A) and later-round financings (Panel B). The general pattern, for both first-round and later-round financings, is that each additional out-of-state investor significantly increases the likelihood of Delaware incorporation, whereas the number of in-state investors has little effect. For example, in later rounds of financing (panel B), moving from one out-of-state investor to four or more out-of-state investors is associated with an approximate 17% increase in the probability of Delaware incorporation, whereas a similar

¹² "Final state" is the state of incorporation at the time of exit (IPO or acquisition) or, if there has been no exit event, the state of incorporation as of 2008.

change in the number of in-state investors (moving from one to more than four) is associated with only a 2% increase in the likelihood of Delaware incorporation.¹³

[ADD TABLE 3 ABOUT HERE]

4. Baseline Empirical Results

This section tests the lingua-franca hypothesis. We first examine the choice of legal domicile made at the first round of VC financing (§ 4.1), and then consider reincorporation into Delaware in connection with subsequent financing (§ 4.2).

4.1. State of Incorporation at the First Round of VC Financing

We estimate, using logit regression, the following equation for choice of Delaware incorporation in connection with the first round of VC financing:

$$Delaware = \alpha + \beta_1 * Out-of-State Investors + \beta_2 * Local Exposure + \beta * X + \varepsilon \quad (1)$$

where ε is the error term and X is a vector of included control variables. The dependent variable, *Delaware*, equals one if the firm is incorporated in Delaware at the time of the first round of financing, and zero otherwise. For purposes of equation (1), all variables are defined as of the first round of VC financing ($t = 1$).

There are two explanatory variables of interest: *Out-of-State Investors*, which equals the number of out-of-state investors participating in the round; and *Local Exposure*, which equals the number of *Out-of-State Investors* in the financing round that have previously financed a firm (within our sample of 1,850 startups) that was incorporated in the startup's home state. *Local Exposure* can be understood as a rough proxy for out-of-state investors' familiarity with the local dialect: home-state corporate law. Unfortunately, *Local Exposure* includes only experience with home-state corporate law within our sample period; it does not reflect any familiarity based on a VC's investment activity prior to 2000. Consequently, *Local Exposure* is likely to be less accurate in first-round deals, which tend to occur early in our sample period.

Out-of-State Investors and *Local Exposure* provide two proxies for investor familiarity. The combination of the two variables lets us separately measure the marginal effect of (i) an *Out-of-State Investor* with no prior exposure to the startup's home-state law [= β_1] as well as of (ii) an *Out-of-State Investor* with at least some prior exposure to the startup's home state law [= $\beta_1 + \beta_2$]. The lingua-franca hypothesis predicts that $\beta_1 > 0$, and $\beta_2 < 0$. In words, we predict that each additional out-of-state investor will increase the

¹³ Our data may lead us to underestimate the relationship between “true” out-of-state investors and Delaware incorporation. In particular, our data records any VC firm with multiple offices (Chen, Gompers, Kovner & Lerner, 2009) as if it were investing out of the main office, even if it was in fact investing out of a satellite office in the startup's home-state. In this scenario, an “in-state” investor will be incorrectly designated as an out-of-state investor.

likelihood of Delaware incorporation, but the marginal effect will be higher for out-of-state investors that are unfamiliar with home-state law.

We also control for various firm-level and state-level variables that may affect a startup's state of incorporation. Table 4 defines the variables used throughout the remainder of this section and provides summary statistics for each.

[ADD TABLE 4 ABOUT HERE]

Table 5 presents regression results, reporting logit marginal effects with all variables at their mean values. We first estimate *Delaware* as a function of our two treatment variables: *Out-of-State Investors* and *Local Exposure* (model 1). Models 2 and 3 add additional explanatory variables that control for various firm-level characteristics of each business, including (i) the total number of investors (*Total Investors*), (ii) the number of in-state investors (*In-State Investors*)¹⁴, (iii) the amount invested in the round (*Investment (\$M)*), (iv) the average age, based on year founded, of the VC firms participating in the round (*VC Reputation*),¹⁵ and dummy variables for (v) firm sector and (vi) year of financing.

In model 4, we add control variables for features of home-state corporate law that may affect choice of domicile. First, we add three variables used in Kahan (2006): *Judicial Quality*, *Flexibility*, and *ATS Index*. *Judicial Quality* addresses the possibility that firms incorporate in Delaware because it is seen as having a higher-quality judiciary than their home states (Romano, 1993); *Flexibility* indicates the level of flexibility given to parties by home-state law to design their internal governance arrangements (Kahan, 2006); and *ATS Index* captures the strength of anti-takeover protections offered by the home state (Bebchuk & Cohen, 2004). *ATS Index* should be relevant only if the firm expects to go public.

Second, we record *Franchise Tax* for the startup's home state. *Franchise Tax* reflects the change in home-state fees when a firm incorporates at home rather than in Delaware. If a firm domiciles at home rather than in Delaware, it must pay its home state (a) an initial incorporation fee and (b) an annual franchise tax and/or report fee. But the firm will avoid paying its home state (c) a "foreign qualification fee" and (d) (sometimes) an annual foreign report fee.¹⁶ Thus, we define *Franchise Tax* as (a) + (b) – (c) – (d).¹⁷ Tax rates are defined

¹⁴ Because the identities of a startup's investors are not always disclosed in VX, we are able to include *Out-of-State Investors*, *In-State Investors*, and *Number of Investors* in a single regression model without introducing perfect multicollinearity among the right-hand-side variables.

¹⁵ VC firm age is used as a proxy for reputation (Gompers, 1996; Hsu, 2004).

¹⁶ In states where annual franchise tax fees are imposed on foreign corporations doing business within the state, we removed those fees from *Franchise Tax* because there is no increase in those fees if the firm domiciles at home rather than in Delaware.

¹⁷ By incorporating in its home state rather than Delaware, the firm will also avoid paying (e) franchise taxes charged by Delaware. Since Delaware's franchise tax does not depend on a firm's physical location, item (e) is essentially a constant term that would apply equally to all firms in our sample. Thus, (e) does not need to be included in the definition of *Franchise Tax*.

as of January 1, 2000, and we assume 100,000 shares outstanding (par value = \$.001/share).¹⁸ Most states charge the same flat fees to both home-state and Delaware-domiciled firms (Kahan and Kamar 2001, 2002). For these states, *Franchise Tax* is zero.

Third, to control for the possibility that differences in contracting practices between east and west coast firms affect incorporation-related decisions (Coates, 2001; Bengtsson & Ravid, 2009), we record whether the firm is headquartered in a state located west of the Mississippi River (*West of Mississippi*). Fourth, to address other potential incorporation network benefits, we control for the number of publicly held firms incorporated in the startup's home state (*State Inc. Count*) and for whether home-state corporate law is based on the Model Business Corporation Act (*MBCA state*).¹⁹

Finally, in model 5 we include a set of dummy variables for each state.²⁰ Due to limited within-state variation in the dependent variable, models 4 and 5 are restricted to startups headquartered in states with at least ten observations and are thus estimated on a smaller sample of firms (n=1,774).

[ADD TABLE 5 ABOUT HERE]

In each model reported in Table 5, we find results consistent with the lingua-franca hypothesis. As predicted, *Out-of-State Investors* has a positive and significant effect on Delaware incorporation, while *Local Exposure* has a negative effect. Adding an *Out-of-State Investor* with no prior exposure to the startup's home-state law increases the likelihood of Delaware incorporation by approximately six to eight percentage points [β_1]. In contrast, adding an out-of-state investor with at least some prior exposure to the startup's home-state law only increases the likelihood of Delaware incorporation by approximately two to five percentage points [$\beta_1 + \beta_2$]. It should be noted that the marginal effect for *Local Exposure* is only statistically significant in model 3. As discussed above, there are measurement limitations for *Local Exposure* in the first round of financing; these limitations are likely to reduce statistical significance. In any event, our baseline results are as predicted by the lingua-franca hypothesis: $\beta_1 > 0$ and $\beta_2 < 0$.²¹

The magnitude of these effects is also significant: moving from zero to two out-of-state investors in the first round of financing increases the likelihood of Delaware incorporation from 68% to 82%, nearly halving the likelihood (32% versus 18%) that a

¹⁸ Because we do not have accounting data for the firms in our sample, we cannot generate firm-specific fees.

¹⁹ The first of these network variables, *State Inc. Count*, is also used by Daines (2002), while the second, *MBCA State*, is used by Kahan (2006).

²⁰ Due to perfect multicollinearity, we cannot include the corporate law variables and the state dummies in the same regression model.

²¹ Although it is not necessarily a prediction of the lingua-franca hypothesis, one might expect that $\beta_1 + \beta_2 > 0$ (prior exposure does not make an out-of-state investor as familiar with the startup's home-state law as an in-state investor). Point estimates from our analysis (Table 5) are in fact consistent with $\beta_1 + \beta_2 > 0$, though the results are not statistically significant at normal levels.

startup will incorporate in any state other than Delaware. These forecasts are based on estimates from model 3 with all other controls held at their mean values.

Finally, we compare the impact of out-of-state investors to two legal factors identified in prior research: home-state legal flexibility and judicial quality. Consistent with Kahan (2006), we find that firms are more likely to incorporate in their home states and less likely to choose Delaware if the home-state law provides greater flexibility, and if the home state is perceived to have a higher-quality judiciary.

To compare the relative magnitude of these two explanations with the lingua-franca effect, we examine the likelihood of Delaware incorporation when each variable is one standard deviation below its mean, as compared to one standard deviation above its mean. Based on estimates from model 4, when moving from one standard deviation below its mean to one standard deviation above its mean, *Out-of-State Investors* is associated with a 16 percentage point increase (from 69% to 85%) in the likelihood of Delaware incorporation, while *Judicial Quality* is associated with an 8 percentage point decline (from 81% to 73%), and *Flexibility* is associated with an 11 percentage point decline (from 82% to 71%). While each of these effects is economically meaningful, the lingua-franca effect appears to have a larger effect on incorporation choice than flexibility or judicial quality.

It is worth noting here that our results will tend to understate the impact of investor familiarity on domicile decisions. In particular, there are two familiarity-related reasons why a firm without any out-of-state investors might domicile in Delaware. First, a home-state investor that frequently invests in both the home state and other states may want to standardize its contracting by having all of its portfolio companies, including those in the home state, domicile in Delaware. Indeed, we provide evidence below that certain “national VCs” have adopted this Delaware-only approach. To the extent these national VCs push for Delaware incorporation of firms located in the VCs’ home state for standardization reasons (rather than a belief that Delaware is higher quality law), we will observe firms without any of out-of-state investors incorporating in Delaware for familiarity reasons. Second, a firm may initially incorporate in Delaware because it expects to attract out-of-state investors in the future, but end up being financed entirely by in-state investors. Such a firm would also domicile in Delaware for familiarity reasons even though we do not observe any out-of-state investors.

4.2. *Reincorporation in Delaware in Subsequent Financing Rounds*

The results reported above are limited to incorporation decisions around first rounds of financing. We now turn to examine whether the arrival of out-of-state investors in subsequent rounds causes firms that initially incorporated in their home states to reincorporate in Delaware afterwards.

Of firms originally incorporated in their home states, almost one third ultimately switched to Delaware; such reincorporation typically occurs in connection with a new round of financing. To take advantage of this longitudinal variation, we treat each financing round as a separate observation, creating panel data indexed by startup firm (i) and round of financing (t). We limit our attention to situations in which the firm was not already

incorporated in Delaware, because firms already incorporated in Delaware are not ‘at risk’ of reincorporating in Delaware.²² Our panel thus consists of a sub-sample of 594 firms and 1546 financing rounds.

One advantage of panel data is that we can isolate within-firm variation, eliminating bias due to time-constant unobserved effects. To take advantage of this feature, we construct a first-difference transformation of equation (1):

$$\Delta \text{ Delaware} = \beta_1 * [\Delta \text{ Out-of-State Investors}] + \beta_2 * [\Delta \text{ Local Exposure}] + \beta * [\Delta X] + \varepsilon \quad (2)$$

where ‘ Δ ’ indicates the change from round $t-1$ to round t , and X is a vector of included control variables.²³ The first-differences approach eliminates all time-constant variables, both observed and unobserved effects (Wooldridge, 2002).²⁴ This forces us to remove time-constant variables, such as sector and most of the state-level control variables.

Before proceeding to multivariate regression results, we note the positive correlation between an increase in the number of out-of-state investors and reincorporation in Delaware (Figure 2). The horizontal axis shows the change in the number of out-of-state investors since the previous round ($\Delta \text{ Out-of-State Investors}$), while the vertical axis measures the likelihood of reincorporation in Delaware. For example, if a firm adds 3 out-of-state investors in a new round of financing, there is approximately a 23% probability that the firm will reincorporate in Delaware in connection with the new financing. By contrast, if there is no change in the number of out-of-state investors in a new round, the likelihood of reincorporation is only 6%.

[ADD FIGURE 2 ABOUT HERE]

[ADD TABLE 6 HERE]

Reincorporation regression results are reported in Table 6. Model 6 regresses $\Delta \text{ Delaware}$ on our two treatment variables: $\Delta \text{ Out-of-State Investors}$ and $\Delta \text{ Local Exposure}$. Models 7 and 8 add the set of firm-level controls described in §4.1. Model 8 also includes dummy variables for each round of financing.

The results reported in Table 6 are consistent with the lingua-franca hypothesis. Adding out-of-state investors increases the likelihood of reincorporation in Delaware. We

²² If a firm reincorporates into Delaware in round t , any future rounds of financing are excluded. Our analysis can be understood as a discrete-time hazard model: we estimate the hazard of switching to Delaware in round t , conditional on surviving outside Delaware through the previous $t-1$ rounds (Shumway, 2001; Jenkins, 1995).

²³ We include observations from the first round if the business was incorporated in its home state prior to the first VC round. In first-round observations, the $t-1$ value of each variable is zero. To address the possibility that first-round re-incorporations are different from re-incorporations in subsequent rounds, we include separate dummy variables for each round of financing. We find qualitatively similar results when limiting our analysis to follow-on rounds of financing.

²⁴ Removal of unobserved effects can also be accomplished through a firm fixed-effect model. We chose to use the first-differences model rather than a firm fixed-effect model to focus on the change from one round to the next, rather than the difference between each observation and the average for the firm. We find similar results (unreported) using a firm fixed-effect model.

also find that increased familiarity (Δ *Local Exposure*) with home-state law decreases the likelihood of reincorporation in Delaware. These results are significant at the 1% level in each model reported in Table 6. Our analysis suggests that reincorporation in Delaware is (i) most likely to occur when adding out-of-state investors with no prior exposure to home-state law, (ii) of intermediate likelihood when adding out-of-state investors with some prior exposure to home-state law, and (iii) least likely to occur when adding in-state investors.

Importantly, the first-differences regression format eliminates the influence of time-constant unobserved effects on domicile and thereby removes many plausible sources of bias in our estimates of *Out-of-State Investors* and *Local Exposure*. For example, one might be concerned that *Local Exposure* reflects in part the quality of home-state law, not just out-of-state VCs' familiarity with it. But as long as the quality of home-state law is stable over our sample period, it will not bias the coefficient for *Local Exposure*. The first-differences regression thus provides further support for the lingua-franca hypothesis.

5. Instrumental Variable and VC Fixed-Effect Regressions

Because out-of-state investors are not randomly assigned to our sample firms, there is a risk that omitted variables may correlate with both the state of incorporation and the source of VC financing. Such unobserved heterogeneity could bias the econometric results reported in Tables 5 & 6.

Unobserved heterogeneity could come from the startups themselves. For example, out-of-state investors might be more likely to invest in "good" firms, "good" firms might have a higher likelihood of exiting via an IPO, and such firms may disproportionately domicile in Delaware in anticipation of the IPO for any number of reasons.²⁵ If this were the case, an unobserved characteristic of the startup firm (its quality and likelihood of IPO exit) would independently increase both its ability to attract out-of-state financing and its likelihood of choosing Delaware.

Unobserved heterogeneity could also come from VCs. VCs that invest mostly out-of-state ("national VCs") may use Delaware law with higher frequency than VCs that invest mostly in-state ("regional VCs"), whether they are investing in-state or out-of-state. If national VCs tend to rely on Delaware law, and they choose Delaware law because they believe it to be better, we will observe a correlation between out-of-state investors and the use of Delaware law that is not driven by the lingua-franca effect but rather by the unobserved characteristics of the VCs.

To address the problem of omitted variables, we employ two additional identification strategies. First, we construct an instrumental variable for the number of out-of-state investors, and then estimate a two-stage least squares (2SLS) model (§ 5.1).

²⁵ For example, IPO firms may domicile in Delaware because public investors are most familiar with Delaware law, because Delaware law is better for public firm insiders, or because the inherent features of Delaware law maximize value in public firms.

Second, we use individual VC investments into portfolio firms to estimate a VC fixed-effect model (§ 5.2).

5.1. Instrumental Variable Approach (2SLS)

Our IV analysis is based on the rationale that out-of-state VC financing is more likely to occur when the supply of in-state VC funds is limited.²⁶ We use the number of in-state VC funds formed in the five years prior to the round of financing (*Supply of In-State Funds*) as an instrument for the number of *Out-of-State Investors*. VCs generally seek (or are contractually required) to invest committed capital within the first five or so years of a fund's life. The number of in-state investors formed in the previous five years may thus affect whether a startup must look out-of-state to satisfy its financing needs rather than relying entirely on in-state investors.

A valid instrument must (i) predict the endogenous explanatory variable (*Out-of-State Investors*), and (ii) affect the dependent variable (*Delaware*) only via the explanatory variable being instrumented. In our case, *Supply of In-State Funds* limits the feasibility of purely in-state financing, satisfying the first condition. Indeed, *Supply of In-State Funds* has a negative and highly significant effect on *Out-of-State Investors* (and on Δ *Out-of-State Investors*) in the first-stage results of the 2SLS regressions reported in models 9 and 10. While the second condition cannot be statistically confirmed, we have no reason to believe *Supply of In-State Funds* would have a direct effect on a startup's choice of legal domicile. Provided this instrument is exogenous, the resulting 2SLS analysis removes both time-constant and time-varying sources of omitted variable bias.

We re-estimate equations (1) and (2) using two-stage least squares (2SLS), with *Supply of In-State Funds* as an instrumental variable for the number of *Out-of-State Investors*, and for Δ *Out-of-State Investors*. First round results are reported in model 9, and reincorporation results are reported in model 10 (Table 7). Similar to our results in Section 4, we find that *Out-of-State Investors* significantly increases the likelihood of Delaware incorporation. In model 9, for example, each additional out-of-state VC increases the likelihood of Delaware incorporation by about 7.5%. Thus, our results do not appear to be driven by unobserved characteristics of each startup firm.

[ADD TABLE 7 ABOUT HERE]

5.2. VC Fixed-Effect Regression Model

While our IV analysis reduces concern that our baseline results are driven by omitted variable bias, it is certainly possible to question the validity of the instrument exclusion condition, which is conceptually well-grounded but inherently untestable. Furthermore, while the IV analysis provides exogenous variation in the use of out-of-state

²⁶ Chemmanur, Loutskina, & Tian (2011) use a similar supply-driven instrument to explain firms' choice between corporate and independent venture capital.

financing, it does not control for differences between VC firms that invest mostly out-of-state and VC firms that tend to invest in-state.

To address these concerns, we explore an alternative identification strategy. We treat each VC investment in a firm in their portfolio as a separate observation, and then use these data to estimate a VC fixed-effect model. Because the fixed-effect model creates a separate intercept term for each VC investor, we can compare the frequency of Delaware incorporation within each VC's portfolio of startup firms. If we still find that startups are more likely to incorporate in Delaware when receiving out-of-state financing, we can conclude that this result is not driven by unobserved features of VC investors.

To estimate the VC fixed-effect model, we create a separate database in which the unit of analysis is each VC investment in a portfolio firm. Details of the new database, reformulated variables, and results of the VC fixed-effect model are described in the Appendix. For both incorporation in the first round of financing and reincorporation in subsequent rounds, we find that VC investors are approximately five percentage points more likely to contract for Delaware incorporation when investing out-of-state. The inclusion of fixed effects for each VC means this result is not driven by unobserved differences between the VC firms financing each startup.

Interestingly, we find evidence of a VC fixed effect. "National VCs" (VCs with at least 70% out-of-state firms) are more likely to contract for Delaware law even when investing in a startup located in-state. This practice may arise because national VCs believe that Delaware law is better, because they wish to standardize arrangements across all of their portfolio firms, or because they never became sufficiently familiar with home-state law. Other ("regional") VCs, on the other hand, tend to use Delaware law when investing out-of-state and home-state law when investing at home. For the regional VCs, Delaware appears to serve as a lingua franca.

6. Alternative Casual Pathways

Even if the presence of out-of-state investors increases the likelihood of Delaware incorporation, this effect might have an explanation other than lingua franca. In this section, we consider three alternative explanations for this relationship and discuss why they are unlikely to explain away the lingua franca results: (1) neutral venue; (2) California's long-arm statute (Section 2115); and (3) the identity of the startup's law firm.

Neutral Venue

An out-of-state investor may demand that a startup incorporate in Delaware rather than stay at home so that the out-of-state investor can obtain a neutral venue in the event of a dispute. While this explanation is plausible on the surface, Delaware domicile is neither necessary nor sufficient for an out-of-state investor to obtain a neutral venue.

Delaware incorporation is not necessary to obtain a neutral venue because the parties could contract directly over venue through a choice of forum clause. For example, if a California VC investing in a Massachusetts startup wanted disputes resolved in a neutral

state, it could insist that the firm adopt a provision in its charter requiring disputes to be adjudicated by (say) New York or Delaware courts.

Delaware domicile is not sufficient to ensure that a Delaware court will handle a dispute because suits arising in Delaware-domiciled firms can (and often are) brought elsewhere, typically in federal or state courts where the firms are headquartered (Armour, Black, & Cheffins, 2010). Indeed, in a recent decision Delaware Vice Chancellor Laster reminded lawyers that the only way to ensure that disputes arising in Delaware-domicile firms are heard in Delaware is to put a forum selection provision in the charter.²⁷

California Section 2115

California has an unusual long-arm statute (CA Corp. Code § 2115) that purports to extend numerous substantive requirements of California corporate law to “quasi-California firms” – firms domiciled out of state that have most of their assets and shareholders located in California (Fried and Ganor, 2006).²⁸ While the Delaware Supreme Court has ruled that CA § 2115 is invalid when applied to Delaware-domiciled firms, and refuses to enforce its provisions in Delaware, lawyers typically advise covered Delaware-domiciled firms to satisfy the long-arm statute’s provisions because a California court may nonetheless decide to enforce the provision in California, where the firm’s assets and personnel are located (Broughman and Fried, 2010).

In California firms, the presence of more out-of-state investors could increase the likelihood of a Delaware domicile because of § 2115 rather than the lingua-franca effect. To see why this explanation is plausible, suppose that a California-based firm would prefer to incorporate in Delaware and be governed by Delaware law. Section 2115 would prevent the firm from enjoying the full benefit of a Delaware domicile until out-of-state investors constitute a substantial fraction of its shareholder base (because absent such out-of-state ownership the firm would be considered a “quasi-California firm” subject to the long arm of § 2115). Thus, we would expect the arrival of out-of-state investors to increase the likelihood of Delaware incorporation, not because of a lingua-franca effect, but rather because the presence of enough out-of-state investors eliminates the applicability of Section 2115 and thereby makes a Delaware domicile more worthwhile. Because almost 800 of the 1850 firms in our sample are located in California, one might be concerned that § 2115, not lingua franca, is driving our aggregate results.

To ensure that § 2115 is not driving our results, we exclude firms located in California and then re-estimate equations (1) and (2) on a subsample of 1091 firms headquartered outside California. We include as additional explanatory variables all the firm-level controls reported in Tables 5 and 6. Regression results for the first round of

²⁷ *In re Revlon Inc. S’holders Litig.*, 990 A.2d 940, 960 (2010). For a discussion of forum selection clauses, see Armour, Black, & Cheffins (2012 at pp. 1392-94).

²⁸ California’s Section 2115 covers such aspects of corporate governance as stock voting, director elections, D&O indemnification, and dissenters’ rights. New York also has a corporate long-arm statute (N.Y. Bus. Corp. Law §1319). However, it does not apply to significant governance issues such as stock voting, director elections, and dissenters’ rights. Thus, we would not expect New York’s long-arm statute to affect our results.

financing are reported in model 11, and results for reincorporation are in model 13 (Table 8). For both the first round and the reincorporation data, the exclusion of California headquartered firms does not qualitatively change our findings.

[ADD TABLE 8 HERE]

Startup's Law Firm: Regional or National

The identity of the law firm representing the startup is only reported in VX for about half of the firms in our sample. Consequently, the regressions reported in Sections 4 and 5 do not control for the identity of the law firm, even though the startup's lawyer's familiarity with Delaware as opposed to home-state corporate law may itself affect the choice of domicile. For example, Daines (2002) finds that IPO firms are more likely to incorporate in Delaware (rather than at home) if the firm is represented by a "national" rather than a "regional" law firm.

Not controlling for the source of the startup's legal advice could bias our results (Bengtsson, 2009). National law firms, for example, may help clients attract financing from out-of-state investors and also advise their clients to incorporate in Delaware. If so, the observed correlation between out-of-state investors and Delaware domicile may not be due to lingua-franca effects but rather due to the type of law firm advising the startup.²⁹

To address this concern, we identify the law firm representing the startup for the subsample of 1,022 firms (55% of the full sample) where this data is reported by VX. Working with this subsample of firms, we create a new variable, *National Law Firm*, equaling one if the law firm is listed by Chambers USA as a 'national' law firm (elite or highly regarded) in the area of corporate/M&A practice, and zero otherwise.³⁰

We then re-estimate equations (1) and (2). For equation (1) we include *National Law Firm* as an additional explanatory variable alongside our two treatment variables and the firm-level controls (model 12). For the reincorporation analysis, we cannot include *National Law Firm* as an explanatory variable because it is time-constant. Instead, we run two first-difference models, one limited to firms represented by a national law firm (model 14) and another limited to firms represented by a regional law firm (model 15).

Consistent with Daines (2002), in the first round of financing, *National Law Firms* are more likely to cause their clients to incorporate in Delaware. Inclusion of this variable, however, does not change our main findings. The coefficient on *Out-of-State Investors* is positive and highly significant (1% level) in model 12. For the reincorporation analysis, we find that Δ *Out-of-State Investors* is positive for both the national law firm and regional law firm subsamples. The reincorporation result is only significant for the regional law firm

²⁹ Of course, a national law firm may prefer that all the firms it advises use Delaware law because Delaware is the only corporate law familiar to all the firm's attorneys. Thus, a finding that startups advised by national law firms tend to incorporate in Delaware could itself also be consistent with a familiarity driving domicile choices.

³⁰ By contrast, Daines (2002) uses the number of IPOs led by each law firm during the period from 1990 to 2000 as a proxy for whether the law firm is a national firm or regional firm.

subsample, presumably due to the small sub-sample of startups represented by national law firms that were incorporated outside Delaware (n= 114). In any event, our findings of a lingua-franca effect appear robust to the type of law firm representing the startup.

7. Conclusion

Delaware's long-standing dominance in the market for corporate charters has attracted significant attention from researchers seeking to understand the causes and implications of its success. Analyzing a sample of 1850 VC-backed startups, we provide evidence that Delaware's success in luring firms from their home states is in part due to investor familiarity with its corporate law. In particular, Delaware law serves as a lingua franca: firms choose Delaware over their home states to provide both in-state and out-of-state investors with corporate law that they all "speak."

Our study provides the first rigorous empirical support for the proposition that investor familiarity drives domicile decisions. Indeed, we show that lingua franca has a more powerful effect on domicile choices in our sample firms than other factors that have been identified in the literature, such as judicial quality, the flexibility of a state's corporate law, and the identity of the issuer's attorneys.

Our findings help explain how Delaware has been able to achieve and build on its dominant position in the market for corporate charters. Its success in attracting new firms is not solely due to the inherent quality of its corporate law, but rather in part due to investor familiarity with it. Thus, a state seeking to compete with Delaware would not only need to provide "better" law; it would also need to overcome learning costs that may prevent parties from adopting the alternative law. This barrier to competition may hinder desirable state-level innovation in corporate law.

It is worth noting that our results provide a window into domicile decisions during a particular period, roughly 2000-2005. Paradoxically, our ability to measure a lingua-franca effect could actually decline as business parties' familiarity with Delaware increases over time. As repeated exposure makes business parties more familiar with Delaware law (relative to home-state corporate law), more VCs might begin to prefer Delaware law, even if they are investing in-state. As more and more VCs adopt a "Delaware-only" approach, even startups expecting to draw financing exclusively from in-state VCs are likely to domicile in Delaware from the start. As a result, the marginal effect of out-of-state VCs on Delaware domicile will decline.

Finally, while our study focuses on the domicile choices of private firms, it may well also have implications for public firms' arrangements. To the extent Delaware's dominance in the market for private firm charters arises because of investor familiarity, it is likely that Delaware's success in the market for public firm charters is also not due solely to the inherent features of its corporate law. We hope that our work will be useful to researchers taking up this question, which has important implications for ascertaining the desirability of domicile decisions and corporate governance of public firms.

Appendix: VC Fixed-Effect Model

This Appendix provides a detailed description of the VC fixed-effect model.

We create a separate database in which the unit of analysis is each VC investment in a portfolio firm. To ensure that we have meaningful within-group variation, we limit our analysis to VC firms that participated in at least 30 rounds of financing involving startup firms in our sample (during the sample period). This gives us a sub-sample of 173 VC firms and 13,845 portfolio investments by this group of VCs – including 3,397 first-round investments and 5,351 at-risk follow-on round investments.

We find considerable variation in the fraction of each VC's investment portfolio that consists of firms headquartered out-of-state. VCs investing primarily out-of-state ("national VCs") are more likely to contract for Delaware incorporation, both for firms located out-of-state and in-state. By contrast, VCs investing primarily in-state ("regional VCs") are less likely to use Delaware, especially when investing in their home states.

Figure A1 provides a scatter plot illustrating these results. The graph reflects the likelihood that a portfolio firm will incorporate in Delaware at each round of financing depending on whether the startup is headquartered in the same state as the VC investor (and, if it is headquartered in the same state, whether the other VCs are in-state). Results are displayed according to the fraction of out-of-state firms in the VC's portfolio (the horizontal axis). Consequently, for each VC, figure A1 plots two points, the likelihood of Delaware incorporation when investing (i) in-state, and (ii) out-of-state. The vertical distance between these points captures the marginal increase in the likelihood of Delaware domicile when investing out-of-state. The gap between these points is a rough measure of the lingua-franca effect. Figure A1 also includes three Lowess curves reflecting the likelihood of Delaware domicile for (i) Out-of-State portfolio firms (solid red line), (ii) In-State portfolio firms (dashed dark blue line), and (iii) In-State portfolio firms where all VCs in the round are located in the startup's home state (dashed & dotted light blue line).

[INSERT FIGURE A1 ABOUT HERE]

The vertical distance between the solid red line and the two blue lines measures the magnitude of the lingua-franca effect. VCs are more likely to use Delaware when investing out-of-state (solid red line) as compared to in-state (dashed dark-blue line), with the gap especially large if all the other investors participating in a round are also located in the startup's home state (dashed and dotted light-blue line).

Figure A1 indicates that the lingua-franca effect arises primarily from VCs that invest less than 70% of their portfolio out-of-state (i.e. regional VCs). VCs that invest principally out-of-state (i.e. national VCs) use Delaware with higher frequency and the choice between Delaware and home-state law does not seem to depend on where the startup is located. There are a number of possible explanations. National VCs may invest out-of-state with such frequency that they are less familiar with the corporate law in their home states; they may migrate to Delaware simply to standardize contract terms across all the firms in their portfolios; or they may believe that Delaware law is better. Overall, however, Figure A1 supports the lingua-franca hypothesis and shows that VCs behave differently when investing in-state as opposed to out-of-state.

Next, we use fixed-effect regression to estimate the following function:

$$\text{Delaware} = \alpha + \beta_1 * \text{Out-of-State VC} + \beta_2 * \text{Exposed VC} + \beta * \mathbf{X} + VC_i + \varepsilon \quad (3)$$

where *Out-of-State VC* equals one if the VC investor is headquartered in a different state than the startup firm, and zero if both the VC and the startup are headquartered in the same state; *Exposed VC* equals one if the VC investor had previously invested in another startup firm incorporated in the startup's home state, and zero otherwise; \mathbf{X} is a vector of included control variables; and VC_i are a series of fixed-effects for the 173 VC firms that participated in at least 30 round of financing. The inclusion of the VC fixed effect lets us observe how each VC's behavior changes when investing in-state as opposed to out-of-state. The lingua-franca hypothesis predicts that $\beta_1 > 0$ and $\beta_2 < 0$.

The vector \mathbf{X} includes other factors which could affect the choice of domicile: (i) the total amount invested in the round (*Investment (\$M)*); the number of other out-of-state VCs participating in the financing round (*Other Out-of-State VC*); and the total number of other VCs participating in the financing round (*Other VC Total*). We also include dummy variables for Sector, Year, and Round.

We separately estimate equation (3) for the first round of financing (model A1), and for follow-on rounds in which the firm was at risk of reincorporating into Delaware (model A2). To avoid double-counting subsequent investments made by the same VCs, Model A2 only includes the first investment made by each VC into the firm, giving us a sample of 4,432 for purposes of model A2. Results are reported in Table A1.

[ADD TABLE A1 ABOUT HERE]

For both model A1 and A2, we find that VC investors are approximately five percentage points more likely to contract for Delaware incorporation when investing out-of-state. This result is statistically significant in both models. Furthermore, the inclusion of fixed effects for each VC means this result is not driven by unobserved differences between the VC firms financing each startup. Regarding our second treatment variable – *Local Exposure* – our results are less conclusive. We find a null result for the first round of financing. As noted elsewhere, this is likely due to the fact that our measure of *Local Exposure* is inaccurate in first-round financings. For follow-on financing the coefficient on *Local Exposure* is negative, as predicted by the lingua-franca hypothesis, but not quite significant at normal levels. Overall, the VC fixed-effect results support the lingua-franca explanation for the use of Delaware domicile, and provide further confirmation that our findings are not driven by omitted variables.

References:

- Armour, John, Bernard Black, and Brian R. Cheffins. 2010. "Is Delaware Losing its Cases?" Working Paper no. 151/2010. European Corporate Governance Institute, Brussels, Belgium.
- Armour, John, Bernard Black, and Brian R. Cheffins. 2012. "Delaware's Balancing Act." *Indiana Law Journal* 87:1345-1405.
- Bebchuk, Lucian and Alma Cohen. 2003. "Firms' Decisions Where to Incorporate." *Journal of Law & Economics* 46:383-425.
- Bebchuk, Lucian A. 1992. "Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law." *Harvard Law Review* 105:1435-510.
- Bengtsson, Ola and S. Abraham Ravid. 2009. "The Geography of Venture Capital Contracts." Working Paper. Available at SSRN: <http://ssrn.com/abstract=1361827>.
- Bengtsson, Ola and Dan Bernhardt. 2012. "Different Problem, Same Solution: Contract-Specialization in Venture Capital." Working Paper. Available at SSRN: <http://ssrn.com/abstract=2021205>.
- Bengtsson, Ola. 2009. "Intermediaries in Negotiations of Complex Contracts: The Role of Attorneys in Venture Capital Transactions." Working Paper. Available at SSRN: <http://ssrn.com/abstract=1362236>.
- Branson, Douglas M. 1990. "Indeterminacy: The Final Ingredient in an Interest Group Analysis of Corporate Law." *Vanderbilt Law Review* 43:85-124.
- Broughman, Brian J. and Jesse M. Fried. 2010. "Renegotiation of Cash Flow Rights in the Sale of VC-Backed Firms." *Journal of Financial Economics* 95:384.
- Broughman, Brian J. and Jesse M. Fried. Forthcoming. "Do VCs Use Inside Rounds to Dilute Founders? Some Evidence from Silicon Valley." *Journal of Corporate Finance*.
- Carney, William J. and George B. Shepherd. 2009. "The Mystery of Delaware Law's Continuing Success." *University of Illinois Law Review* 2009:1-94.
- Carney, William J., George B. Shepherd, and Joanna Shepherd. Forthcoming. "Lawyers, Ignorance, and the Dominance of Delaware Corporate Law." *Harvard Business Law Review*.
- Cary, William L. 1974. "Federalism and Corporate Law: Reflections upon Delaware." *Yale Law Journal* 83:663-705.
- Chemmanur, Thomas J., Elena Loutskina, and Xuan Tian. 2011. "Corporate Venture Capital, Value Creation, and Innovation." Working Paper. Available at SSRN: <http://ssrn.com/abstract=1364213>.
- Chen, Henry, Paul Gompers, Anna Kovner, and Josh Lerner. 2009. "Buy Local? The Geography of Successful and Unsuccessful Venture Capital Expansion." Working Paper. Harvard Business School, Cambridge, MA.
- Coates, John. 2001. "Explaining Variation in Takeover Defenses: Blame the Lawyers." *California Law Review* 89:1301-1421.
- Daines, Robert. 2002. "The Incorporation Choices of IPO Firms." *New York University Law Review* 77:1559-1611.
- Dammann, Jens and Matthias Schündeln. 2011. "The Incorporation Choices of Privately Held Corporations." *Journal of Law, Economics, and Organization* 27:79-112.
- Easterbrook, Frank H. and Daniel Fischel. 1991. *The Economic Structure of Corporate Law*. Cambridge, Mass.: Harvard University Press.

- Ferris, Stephen P., Robert M. Lawless, and Gregory Noronha. 2006. "The Influence of State Legal Environments on Firm Incorporation Decisions and Values." *Journal of Law, Economics, & Policy* 2:1-28.
- Fisch, Jill E. 2000. "The Peculiar Role of the Delaware Courts in the Competition for Corporate Charters." *University of Cincinnati Law Review* 68:1061-1100.
- Fleischer, Victor. 2004. "The Rational Exuberance of Structuring Venture Capital Start-Ups." *Tax Law Review* 57:137-185.
- Fried, Jesse and Mira Ganor. 2006. "Agency Costs of Venture Capitalist Control in Startups." *New York University Law Review* 81:967-1025.
- Gompers, Paul. 1996. "Grandstanding in the Venture Capital Industry." *Journal of Financial Economics* 42: 133-156.
- Gompers, Paul and Josh Lerner. 1999. *The Venture Capital Cycle*. Cambridge, Mass.: MIT Press.
- Gompers, Paul. 1995. "Optimal Investment, Monitoring, and the Staging of Venture Capital." *Journal of Finance* 50:1461-1489.
- Hsu, David H. 2004. "What Do Entrepreneurs Pay for Venture Capital Affiliation?" *Journal of Finance* 59:1805-1844.
- Jenkins, Stephen P. 1995. "Easy Estimation Methods for Discrete-Time Duration Models." *Oxford Bulletin of Economics and Statistics* 57:129-138.
- Kahan, Marcel and Ehud Kamar. 2001. "Price Discrimination in the Market for Corporate Law." *Cornell Law Review* 86:1205-1256.
- Kahan, Marcel and Ehud Kamar. 2002. "The Myth of State Competition in Corporate Law." *Stanford Law Review* 55:679-749.
- Kahan, Marcel and Michael Klausner. 1997. "Standardization and Innovation in Corporate Contracting (or 'The Economics of Boilerplate')." *Virginia Law Review* 83:713-770.
- Kahan, Marcel. 2006. "The Demand for Corporate law: Statutory Flexibility, Judicial Quality, or Takeover Protection?" *Journal of Law, Economics & Organization* 22:340-65.
- Kamar, Ehud. 1998. "A Regulatory Competition Theory of Indeterminacy in Corporate Law." *Columbia Law Review* 98:1908-1959.
- Klausner, Michael. 1995. "Corporations, Corporate Law, and Networks of Contracts." *Virginia Law Review* 81:757-852.
- Kobylarz, Xenia P. 2006. "Capital Cases: Venture capitalists are finding entrepreneurs less afraid to file suit." *The Recorder*, May 31.
- Macey, Jonathan R. and Geoffrey P. Miller. 1987. "Toward an Interest-Group Theory of Delaware Corporate Law." *Texas Law Review* 65:469-524.
- Rasmusen, Eric. 2001. "Explaining Incomplete Contracts as the Result of Contract-Reading Costs." *Advances in Economic Analysis and Policy* Vol. 1: Iss. 1, Article 2.
- Roe, Mark J., 2003. "Delaware's Competition." *Harvard Law Review* 117: 588-646.
- Romano, Roberta. 1993. *The Genius of American Corporate Law*. Washington, DC: The AEI Press.
- Romano, Roberta. 1985. "Law as a Product: Some Pieces of the Incorporation Puzzle." *Journal of Law, Economics & Organization* 1:225-83.
- Shumway, Tyler. 2001. "Forecasting Bankruptcy More Accurately: A Simple Hazard Model." *Journal of Business* 74:101-124.

- Subramanian, Guhan. 2002. "The Influence of Antitakeover Statutes on Incorporation Choice: Evidence on the 'Race' Debate and Antitakeover Overreaching." *University of Pennsylvania Law Review* 150:1795-873.
- Winter, Ralph K. 1977. "State Law, Shareholder Protection, and the Theory of the Corporation." *Journal of Legal Studies* 6:251-92.
- Wooldridge, Jeffrey M. 2002. *Econometric Analysis of Cross Section and Panel Data*. Cambridge, Massachusetts: The MIT Press.

Table 1: Descriptive Statistics

The following table provides descriptive statistics for a sample of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002. Panel A provides data on the amount and source of the VC financing. Panel B shows the number of sample firms incorporated in their home states, Delaware, or another state. Data are displayed for each firm's original and final incorporation choices. The difference between the original and final incorporation is due to firms changing their domicile (i.e. reincorporating). Panel C shows the status – IPO, Acquisition, Active, or Defunct – of the sample firms, and Panel D divides the sample into broad industry sectors.

Panel A: Firm Characteristics (n=1847)

	Mean	Med.	S.D.
Number of Financing Rounds	3.58	3	2.19
Number of Investors	5.91	5	3.92
Out-of-State Investors ³¹	2.88	2	2.76
In-State Investors	1.82	1	1.83
Amount Invested (in \$M)	36.85	23.2	48.58

Panel B: State of Incorporation (n=1850)

	Original Inc.		Final Inc.		Percent Change
	Count	(%)	Count	(%)	
Delaware	1254	(67.8)	1457	(78.8)	+11.0%
Home State	531	(28.7)	359	(19.4)	-9.3%
Other State	65	(3.5)	34	(1.8)	-1.7%

Panel C: Status (n=1850)

	Count	DE Original (n=1254) Count (%)	DE Final (n=1457) Count (%)	Percent Change
IPO	103	76 (73.8%)	96 (93.2%)	+19.4%
Acquisition	536	367 (68.4%)	414 (77.2%)	+8.8%
Active	916	599 (65.4%)	719 (78.5%)	+13.1%
Defunct	295	212 (71.8%)	228 (77.3%)	+5.5%

Panel D: Sector (n=1850)

	Count	DE Original (n=1254) Count (%)	DE Final (n=1457) Count (%)	Percent Change
Computer-Related	905	615 (67.9%)	710 (78.5%)	+10.6%
Non-High-Tech	99	58 (58.5%)	70 (70.7%)	+12.2%
Communications/Media	366	255 (69.6%)	286 (78.1%)	+8.5%
Biotech	129	95 (73.6%)	110 (85.3%)	+11.7%
Medical/Life Sciences	158	110 (69.6%)	135 (85.4%)	+15.8%
Semiconductor/Other Electronic	193	121 (62.7%)	146 (75.6%)	+12.9%

³¹ The identities of a startup's investors are not always disclosed in VentureXpert. Consequently, the sum of *Out-of-State Investors* and *In-State Investors* does not necessarily equal a firm's total *Number of Investors* (i.e. the total may include investors whose identity and location are not disclosed).

Figure 1: Headquarters and State of Incorporation

The following figure charts states of incorporation relative to each firm's headquarter location. The horizontal axis represents the firm's headquarter location, while the vertical axis shows the state of incorporation. The vast majority of firms (approximately 98%) choose to incorporate either in their home states (the diagonal cluster of points) or in Delaware (the horizontal cluster of points). Data are from a sample of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002. For ease of presentation, this graph only includes results from firms located in states with at least 15 observations. However, Delaware and Nevada are included on the y-axis since they represent important chartering destinations (even though less than 15 observations are headquartered in each of these two states). The graph is jittered to avoid points appearing directly on top of each other, and to illustrate the mass of firms choosing either home-state or Delaware domicile.

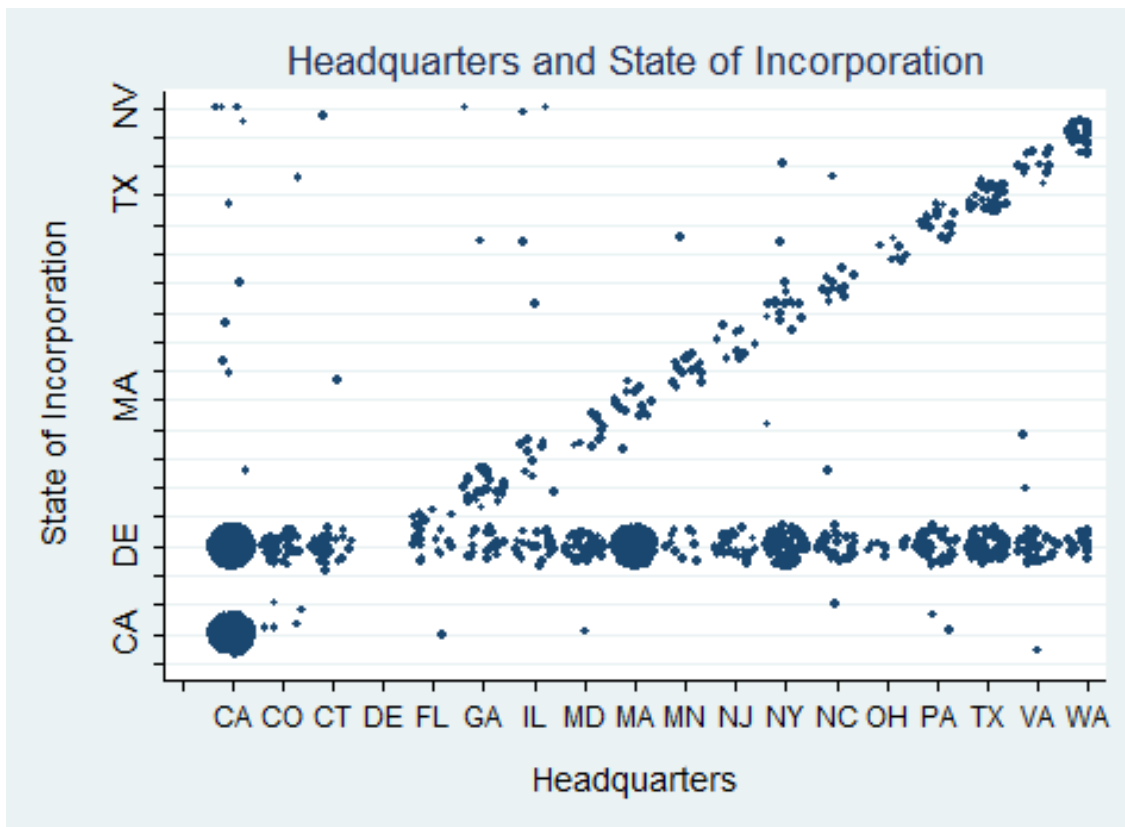


Table 2: Reincorporation

The following table provides data on reincorporation in a sample of 1,850 US-based startups that received first round VC financing between 1/1/2000 and 12/31/2002. Of 1,850 firms, 217 (approximately 12%) reincorporated by 2008. Panel A shows that 94.5% of reincorporations are in Delaware. Focusing exclusively on the 205 firms that reincorporate in Delaware, Panel B shows the timing of reincorporation.³²

Panel A: Reincorporation Destination

	Count	Percent
In Delaware	205	94.5%
In home state ³³	7	3.2%
In other state ³⁴	5	2.3%
Total	217	100%

Panel B: Reincorporation Timing (In Delaware Only n=205)

	Count	Percent
1 st Round (or earlier)	116	56.6%
2 nd Round	33	16.1%
3 rd Round	22	10.7%
4 th Round	9	4.4%
5 th Round (or later)	11	5.4%
After last round of financing	14	6.8%
Total	205	100%

³² Reincorporation after the first round of financing typically occurs within a six-month window (3 months on either side) of a new round of financing. When reincorporation does not occur within 3 months of any round, we assume that reincorporation is in connection with the subsequent round of financing. A firm's management may anticipate that subsequent investors will request Delaware incorporation, and thus decide to reincorporate in advance of the new financing round. To determine whether this assumption affects our analysis, we recode the 32 follow-on reincorporations that are not within 3 months of any financing round as if the reincorporation occurred in connection with the previous round of financing. This alternative coding does not substantively affect the regression results reported below.

³³ Of the 7 firms moving to home-state domicile, 4 were in California and there was 1 in each of Texas, Kentucky and Maryland.

³⁴ Of firms switching to third-state domicile, 2 went to Nevada, and 1 each went to Connecticut, Florida, and Virginia.

Table 3: Delaware Incorporation and Out-of-State Investors

Using data from a sample of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002, the following table shows the likelihood of Delaware incorporation sorted by the number of in-state and out-of-state investors participating in each round. Results are separately displayed for first-round financings (Panel A) and later-round financings (Panel B).

Panel A: Delaware Incorporation in First-Round Financing

		Number of Out-of-State Investors			
		0	1	2	3+
Number of In-State Investors	0		73.4%	78.7%	93.1%
	1	63.6%	73.3%	82.0%	84.2%
	2	68.9%	81.2%	72.2%	87.5%
	3+	70.8%	79.5%	72.8%	100%

Percent Delaware Incorporation

Panel B: Delaware Incorporation in Follow-on Round Financing

		Number of Out-of-State Investors				
		0	1	2	3	4+
Number of In-State Investors	0		77.6%	81.9%	79.8%	92.2%
	1	67.2%	72.1%	73.8%	82.6%	92.0%
	2	65.8%	71.1%	86.2%	83.8%	92.3%
	3	69.8%	79.2%	80.8%	81.5%	93.1%
	4+	66.0%	77.8%	77.6%	81.5%	94.4%

Percent Delaware Incorporation

Table 4: Variable Definitions and Summary Statistics

This table defines the variables used in Tables 5 through 7 and provides descriptive statistics for each. The financing round (n = 6217) is the unit of analysis. Hence, each variable below is defined for each round of financing. *Delaware* equals one if the firm is incorporated in Delaware, and zero otherwise; *Out-of-State Investors* is the number of out-of-state investors participating in the round; *Local Exposure* equals the number of out-of-state investors participating in a financing round that have previously financed a firm within the sample of 1,850 startups that is incorporated in the startup's home state; *Total Investors* is the total number of VC investors participating in the round; *In-State Investors* is the number of in-state investors participating in the round; *Investment (\$M)* equals the amount of financing received in the new round (in millions of dollars); *VC Reputation* equals the average age, as of 2010, of the VC firms participating in a round of financing; *Judicial Quality* equals the Chamber of Commerce 2001 score for each state's judicial quality; *Flexibility* is an index variable, 0 to 4, measuring how much flexibility a state's corporate law provides for firms to design their governance arrangements, following Kahan (2006); *ATS Index* is an index of anti-takeover statutes, following Kahan (2006); *Franchise Tax* equals the sum of the home state's initial incorporation fee and its annual franchise tax and/or annual report fee, minus the sum of the home state's foreign qualification fee and its annual foreign report fee, based on tax rates as of 1/1/2000 and assumption of 100,000 shares outstanding (par value = \$.001/share); *MBCA state* equals one if the firm is located in an MBCA state, and zero otherwise; *West of Mississippi* equals one if the firm is located in a state located west of the Mississippi River, and zero otherwise; and *State Inc. Count* equals the number of publicly-held firms incorporated in the startup's home state.

Variable	Mean	Median	SD
<i>Delaware</i>	.769	1	.422
<i>Out-of-State Investors</i>	1.765	1	1.929
<i>Local Exposure</i>	.390	0	.889
<i>Total Investors</i>	3.725	3	2.605
<i>In-State Investors</i>	1.243	1	1.399
<i>Investment (\$M)</i>	10.793	6.75	15.145
<i>VC Reputation</i>	25.828	25	9.988
<i>Judicial Quality</i>	2.147	2.1	.298
<i>Flexibility</i>	3.144	3	.755
<i>ATS Index</i>	1.848	1	1.951
<i>Franchise Tax</i>	-39.270	0	230.520
<i>MBCA state</i>	.291	0	.454
<i>West of Mississippi</i>	.564	1	.496
<i>State Inc. Count</i>	97.649	100	48.613

Table 5: State of Incorporation at the First Round of VC Financing

Using data from a cross-section of 1,850 US-based VC-backed startups, this table reports marginal effects based on logit estimates evaluated at the mean of each variable. All variables are defined as of the first round of VC financing. The dependent variable is *Delaware*, which equals one if the firm was incorporated in Delaware, and zero otherwise. All explanatory variables are defined in Table 4. Standard errors (clustered at the state level and calculated via the delta-method) are reported below each coefficient estimate. We use a two-sided test for statistical significance (* = 10% and ** = 1% significance).

	Logit Marginal Effects (Dependent Variable = <i>Delaware</i>)				
	(1)	(2)	(3)	(4)	(5)
Treatment Variable					
<i>Out-of-State Investors</i>	.0793** (.010)	.0626** (.015)	.0674** (.016)	.0650** (.014)	.0609** (.019)
<i>Local Exposure</i>	-.0305 (.028)	-.0374 (.029)	-.0554* (.025)	-.0439 (.030)	-.0230 (.025)
Firm-Level Controls					
<i>Total Investors</i>		.0216* (.011)	.0186* (.011)	.0153 (.011)	.0140 (.015)
<i>In-State Investors</i>		-.0027 (.013)	-.0033 (.013)	-.0009 (.014)	-.0001 (.019)
<i>Investment (\$M)</i>		.0016 (.001)	.0010 (.001)	.0015 (.001)	.0009 (.001)
<i>VC Reputation</i>		-.0014* (.001)	-.0022** (.001)	-.0022** (.001)	-.0017 (.001)
<i>Sector Dummies</i>		Yes	Yes	Yes	Yes
<i>Year Dummies</i>			Yes	Yes	Yes
State-Level Controls					
<i>Judicial Quality</i>				-.1303 (.177)	
<i>Flexibility</i>				-.0720 (.076)	
<i>ATS Index</i>				-.0060 (.029)	
<i>Franchise Tax</i>				.0000 (.000)	
<i>MBCA state</i>				.0272 (.090)	
<i>West of Mississippi</i>				-.1943** (.065)	
<i>State Inc. Count</i>				-.0005 (.001)	
<i>State Dummies</i>					Yes
Observations	1847	1847	1847	1774	1774
Pseudo R-squared	.034	.042	.061	.086	.137

Figure 2: Delaware Reincorporation and Change in Number of Out-of-State Investors

The following figure illustrates the likelihood that a firm will reincorporate in Delaware in connection with a new round of financing. The horizontal axis shows the change in the number of out-of-state investors since the previous round (Δ *Out-of-State Investors*). Data are from a sample of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002. This graph only reports observations in which the firm was not incorporated in Delaware prior to the round (i.e. firms at 'hazard' of reincorporating in Delaware).

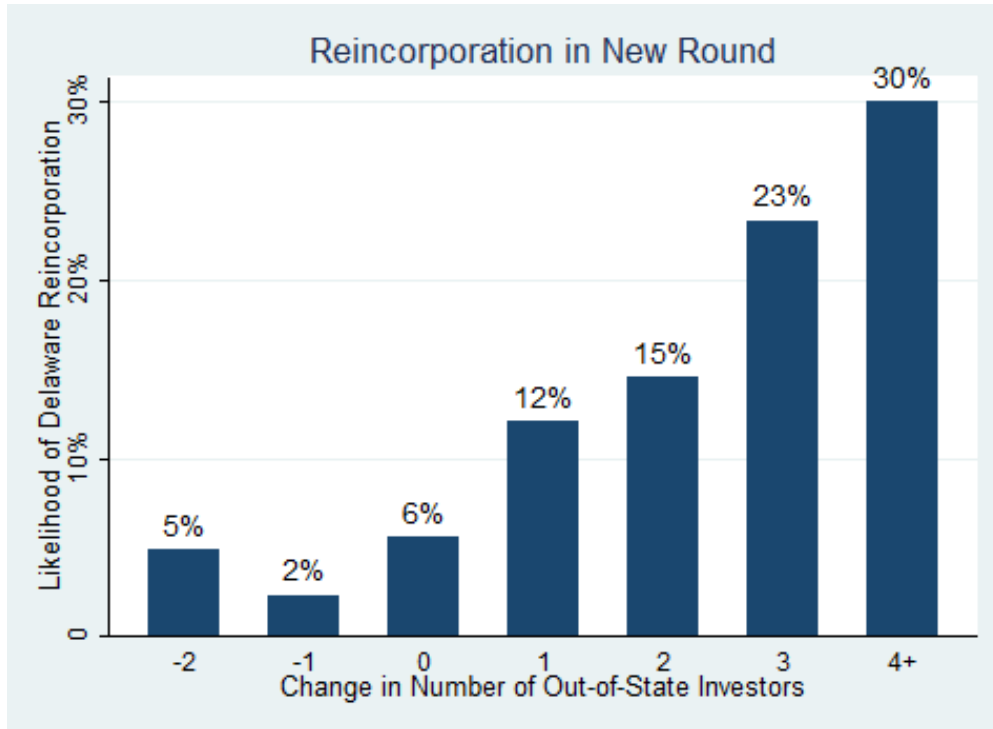


Table 6: Reincorporation in Delaware

This table reports first-difference regression estimates on a sample of 1,850 US-based startups that received first-round VC financing between 1/1/2000 and 12/31/2002. Data are estimated for each financing round in which the firm was at risk of reincorporating in Delaware, a total of 594 firms and 1546 rounds. The dependent variable is $\Delta Delaware$, which equals one if the business reincorporated in Delaware in the round of financing, and zero otherwise. All explanatory variables are defined in Table 4. Since multiple observations from a single firm are not independent, standard errors are clustered at the firm level and reported in parentheses below each coefficient estimate. We use a two-sided test for significance (* = 10% and ** = 1% significance).

	First Difference Regression Model (OLS)		
	(6)	(7)	(8)
Treatment Variable			
<i>Out-of-State Investors</i>	.0627** (.009)	.0440** (.012)	.0442** (.012)
<i>Local Exposure</i>	-.0315** (.010)	-.0233** (.008)	-.0246** (.009)
Firm-Level Controls			
<i>Total Investors</i>		.0096 (.007)	.0104 (.007)
<i>In-State Investors</i>		-.0153 (.011)	-.0175 (.011)
<i>Investment (\$M)</i>		-.0005 (.001)	-.0004 (.001)
<i>VC Reputation</i>		.00004** (.0000)	.00009** (.0000)
<i>Round Dummies</i>			Yes
<i>Year Dummies</i>			Yes
Observations	1546	1546	1546
Firm Clusters	594	594	594
R-squared	.051	.067	.081

Table 7: Instrumental Variable Regression Model

This table reports two-stage least squares (2sls) estimates on a sample of 1,850 US-based VC-backed startups that received a first round of VC financing between 1/1/2000 and 12/31/2002. Model 9 estimates the decision whether to incorporate in Delaware at the first round of financing, with *Delaware* as the dependent variable. Using first-difference regression analysis, model 10 estimates the decision whether to reincorporate in Delaware in each subsequent financing round, with Δ *Delaware* as the dependent variable. We use *Supply of In-State funds* as an instrumental variable for the number of *Out-of-State Investors* (model 9) and for Δ *Out-of-State Investors* (model 10). All remaining explanatory variables are defined in Table 4. Robust standard errors (clustered at the firm level in model 10) are reported below each coefficient estimate. We use a two-sided test for statistical significance (* = 10% and ** = 1% significance).

	2SLS	
	First Round DV = <i>Delaware</i> (9)	Reincorporation First-Difference Model DV = Δ <i>Delaware</i> (10)
Treatment Variable		
<i>Out-of-State Investors</i>	.0765* (.030)	.2577** (.072)
<i>Local Exposure</i>	-.0439* (.024)	-.0697** (.022)
Firm-Level Controls		
<i>Total Investors</i>	.0004 (.014)	-.0579** (.021)
<i>Investment (\$M)</i>	-.0002 (.001)	-.003* (.001)
<i>VC Reputation</i>	-.0023* (.001)	.0001** (.000)
<i>Sector Dummies</i>	Yes	Yes
<i>Year Dummies</i>	Yes	Yes
<i>Round Dummies</i>	n/a	Yes
Observations	1827	1534
Firm Clusters	n/a	594
Wald Chi-squared	92.93	76.14
First-stage F-stat	139.42	41.87
Instruments	<i>Supply of In-State Funds</i>	<i>Supply of In-State Funds</i>

Table 8: Robustness Checks – Alternative Explanations

This table reports robustness checks on a sample of 1,850 US-based VC-backed startups that received first round VC financing between 1/1/2000 and 12/31/2002. Models 11 - 12 report logit marginal effects regarding the decision to incorporate in Delaware at the first round of financing, with *Delaware* as the dependent variable. Using first-difference regression, models 13 - 15 estimate the decision whether to reincorporate in Delaware in each subsequent financing round, with Δ *Delaware* as the dependent variable. Models 11 & 13 are limited to a subsample of non-California firms. Model 12 is estimated on a subsample of firms in which VentureXpert identified the startup's law firm; model 14 is limited to firms represented by a "national" law firm; and model 15 is limited to firms represented by a "regional" law firm. The explanatory variables for the reincorporation models are in first-difference format (i.e. " Δ "). All remaining explanatory variables are defined in Table 4. Robust standard errors (clustered at the firm level in models 13 - 15) are reported below each coefficient estimate. For models 11 & 12, standard errors are calculated using the delta-method. We use a two-sided test for statistical significance (* = 10% and ** = 1% significance).

Treatment Variable	First Round DV = <i>Delaware</i> Logit Marginal Effects		Reincorporation DV = Δ <i>Delaware</i> First-Difference Regression (OLS)		
	Non-CA Firms	Law Firm Data	Non-CA Firms	National Law Firm	Regional Law Firm
	(11)	(12)	(13)	(14)	(15)
<i>Out-of-State Investors</i>	.0370* (.022)	.0635** (.023)	.0428* (.019)	.0333 (.031)	.0380* (.019)
<i>Local Exposure</i>	-.1164* (.065)	-.0134 (.034)	-.0334* (.016)	-.0040 (.008)	-.0356* (.016)
Firm-Level Controls					
<i>Total Investors</i>	.0309* (.018)	.0117 (.017)	.0112 (.013)	.0120 (.015)	.0162 (.011)
<i>In-State Investors</i>	-.0031 (.027)	-.0138 (.019)	.0245 (.024)	.0044 (.021)	-.0281* (.016)
<i>Investment (\$M)</i>	.0018 (.002)	.0015 (.002)	-.0006 (.001)	-.0007 (.003)	-.0006 (.001)
<i>VC Reputation</i>	-.0012 (.001)	-.0015* (.001)	.0001** (.000)	.0000 (.000)	.0001* (.000)
<i>National Law Firm</i>		.0498* (.021)			
<i>Sector Dummies</i>	Yes	Yes			
<i>Year Dummies</i>	Yes	Yes	Yes	Yes	Yes
<i>Round Dummies</i>	n/a	n/a	Yes	Yes	Yes
Observations	1091	1022	765	284	635
Firm Clusters	n/a	n/a	324	114	223
Wald Chi-squared	173.57	467.46	n/a	n/a	n/a
R-Squared	n/a	n/a	.122	.074	.078

Figure A1: Delaware Domicile for VC In-State vs. Out-of-State Rounds

The graph below shows, for each VC investor in our sample, the likelihood that a portfolio firm will be incorporated in Delaware at each round of financing. Data are limited to VCs that invested in at least 30 rounds of financing within the sample, and are displayed according to the fraction of out-of-state firms in each VC's portfolio. For each qualifying VC, out-of-state investments are indicated with a red plus sign, while in-state investments are indicated with a dark blue square. The graph also shows three Lowess curves plotting the likelihood of Delaware domicile at each round of financing for (i) Out-of-State portfolio firms (solid red line), (ii) In-State portfolio firms (dashed dark blue line), and (iii) In-State portfolio firms where all VCs in the round were located in the startup's home state (dashed & dotted light blue line). Data, which are taken from a sample of 1,850 US-based startups that received a first round of VC financing between 1/1/2000 and 12/31/2002, are plotted over the fraction of out-of-state investments in each VC's portfolio.

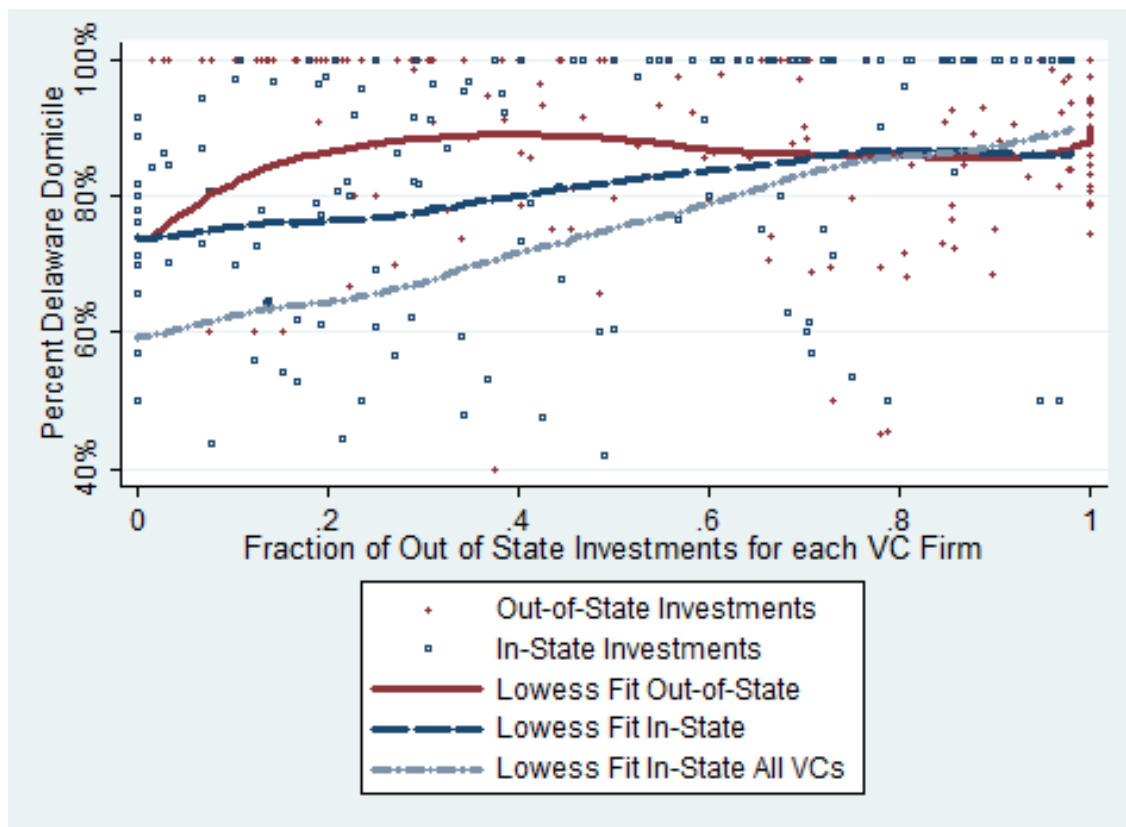


Table A1: VC Fixed-Effect Regression Models

This table reports VC fixed-effect regression estimates on a sample of 1,850 US-based VC-backed startups that received a first round of VC financing between 1/1/2000 and 12/31/2002. We limit our analysis to VC firms that participated in at least 30 rounds of financing involving the startup firms in our sample. The unit of analysis is each investment by the VC firms meeting the above qualification. The dependent variable (*Delaware*) records whether the portfolio firm was incorporated in Delaware at the time of the investment. The primary explanatory variable is *Out-of-State VC*, which equals one if the startup was headquartered in a different state than the VC firm, and zero otherwise. Model A1 is limited to first-round financing observations. Model A2 includes subsequent at-risk rounds of financing, but is limited to the first investment by each VC in the company. Remaining explanatory variables are defined in Table 4. Robust standard errors are reported below each coefficient estimate. We use a two-sided test for statistical significance (* = 10% and ** = 1% significance).

	VC Fixed Effect	
	First Round (A1)	At-Risk Subsequent Round Financing (A2)
Treatment Variables		
<i>Out-of-State VC</i>	.0531* (.025)	.0396* (.023)
<i>Exposed VC</i>	.0032 (.036)	-.0236 (.032)
Control Variables		
<i>Investment (\$M)</i>	.0000 (.000)	-.0000 (.000)
<i>Other Out-of-State VC</i>	.0227** (.006)	.0295** (.005)
<i>Other VC Total</i>	.0191** (.004)	.0109** (.004)
<i>Sector Dummies</i>	Yes	Yes
<i>Year Dummies</i>	Yes	Yes
<i>Round Dummies</i>		Yes
<i>VC Fixed Effects</i>	Yes	Yes
Observations	3397	4432
VC Clusters	172	173
R-squared (within)	.071	.255