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Abstract

Why would a firm incorporate in Delaware rather than in its home state? Prior explanations have focused on the inherent features of Delaware corporate law and on the positive network externalities created by so many other firms domiciling in Delaware. We offer an additional explanation: a firm may choose Delaware simply because its law is nationally known and thus can serve as a lingua franca for in-state and out-of-state investors. Analyzing the incorporation decisions of 1,850 venture-capitalist-backed start-ups, we find evidence consistent with this lingua franca explanation. Indeed, the lingua franca effect appears to be more important than other factors that have been shown to influence corporate domicile, such as corporate law flexibility and the quality of a state's judiciary. Our study contributes to the literature on the market for corporate charters by providing evidence that Delaware's continued dominance is in part due to investors' familiarity with its corporate law.

1. Introduction

Delaware dominates the corporate-chartering market in the United States—it is the only state that attracts a significant number of out-of-state incorporations.[1]

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[1] 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 and Fischel 1991).

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As a result, incorporation decisions are bimodal: public and private firms typically choose between home-state and Delaware incorporation, with most public firms and large private firms going to Delaware (Bebchuk and Hamdani 2002; Daines 2002; Bebchuk and Cohen 2003; Dammann and Schündeln 2011).

Why would a firm today incorporate in Delaware rather than in its home state? Traditional accounts focus on the inherent quality of Delaware's corporate law rules. Under the race-to-the-top view, firms choose Delaware because its law maximizes firm value for shareholders (Winter 1977; Romano 1985). Under the race-to-the-bottom view, firms choose Delaware because it offers corporate law that favors insiders at other parties' expense (Cary 1974; Bebchuk 1992; Bar-Gill, Barzuza, and Bebchuk 2006).

More recent explanations for why a firm might choose Delaware turn not on the inherent quality of its law but rather on the number of other firms incorporated in Delaware. Drawing on the network-effects literature, Klausner (1995) argues that a firm (Firm X) committing to a long-term domicile (such as an initial-public-offering [IPO] firm that cannot easily change domicile after going public) may choose Delaware even if its corporate law is not optimal because a large number of other firms will be domiciled in Delaware in the future. This large, continuing network of Delaware firms ensures that Firm X will have access to more case law and better legal services in the future than if it domiciles in its home state, where the firm network is smaller.

Relatedly, Kahan and Klausner (1997) argue that contractual terms (in loan agreements, charters, and the like) may persist not because of their quality but simply because of the learning benefits (such as drafting efficiencies and a reduction in uncertainty) that arise from these terms having already been widely used. Their analysis suggests that a firm may choose Delaware simply because of the learning benefits generated by so many other firms having chosen Delaware domicile in the past.

We put forward and test a new explanation for why a firm today would go to Delaware rather than stay home: that Delaware law can serve as a lingua franca for investors around the country, both in state and out of state. The lingua franca explanation builds on the fact that, after decades of Delaware's dominance, business parties throughout the United States—including investors and their lawyers—are generally familiar only with Delaware law and the law of their home state (Daines 2002; Klausner 1995; Kahan and Klausner 1997). As Daines (2002, p. 1581) puts it, "Focusing on one national standard allows [corporate lawyers] to economize on the need to keep up to date with developments in multiple jurisdictions. Delaware is thus much like a common language and such lawyers are 'bi-lingual,' speaking Delaware law plus the local dialect." Thus, a firm wishing to attract investors from around the country may choose Delaware merely to provide a law that can be "spoken" by all of its investors.

Although the lingua franca effect is similar to the network and learning explanations for Delaware's dominance, the lingua franca effect is conceptually distinct and yields different predictions. Network effects and learning benefits pre-

dict that a particular firm choosing between two jurisdictions will incorporate in the jurisdiction that will serve (network effects) or has served (learning benefits) as the legal domicile for more firms. Network and learning explanations depend on other firms' decisions, not on the identity of the firm's investors. The lingua franca effect, on the other hand, predicts that this firm's choice between the two jurisdictions will be directly affected by its own investors' relative familiarity with these jurisdictions. In other words, unlike network effects or learning benefits, the lingua franca effect is generated by the backgrounds of the particular investors at the bargaining table.

Of course, all of these explanations for Delaware's dominance in the chartering market, including network effects and learning benefits, may help explain why Delaware law (and not the corporate law of some other state) became a lingua franca in the first place. Corporate lawyers may choose to learn Delaware as a second (or first) language in part because of network effects or learning benefits that give Delaware an advantage over other states' corporate laws, in part because of the inherent features of Delaware corporate law, in part because so many firms are or will be incorporated in Delaware (for whatever reason), and in part because it will be easier to work with other Delaware-speaking lawyers to incorporate new firms.[2] We abstract here from the question of why Delaware law became a lingua franca. Our claim is that, given that most lawyers around the country are familiar with Delaware law, some firms will domicile in Delaware simply to provide all of their investors with a language that each investor can understand.[3]

We test for a lingua franca effect using a sample of 1,850 start-up firms financed by venture capitalists (VCs) that received their first round of VC financing between 2000 and 2002. Venture capitalists and their attorneys will wish to be familiar with the corporate law applicable to the start-up: they rely on a complex set of contracts whose drafting and implementation are dependent on subtle features of the governing law (Fried and Ganor 2006). By offering a more familiar corporate law (everything else equal), a start-up's entrepreneur can lower the cost of capital (Bengtsson and Bernhardt 2012). Because lawyers typically do not speak any other language besides Delaware and home-state law (Daines 2002), out-of-state investors and their lawyers are likely to be less familiar with the start-up's home-state corporate law than with Delaware law.[4] The lingua franca expla-

[2] Church and King (1993) develop a network-effects model in which the benefit of language acquisition is increasing in the number of individuals who speak the language. To the extent that lawyers learn to speak Delaware simply because many other lawyers have learned or will learn to speak Delaware, the lingua franca effect we identify could itself be considered to reflect the operation of network effects.

[3] Just as network effects and learning benefits associated with Delaware law may strengthen its role as a lingua franca, a lingua franca effect may strengthen the network effects and learning benefits associated with Delaware incorporation by increasing the number of firms domiciled in Delaware. In other words, causality between the lingua franca effect and network and learning benefits effects can run in both directions.

[4] The VC's attorney will handle legal issues arising from a portfolio investment and therefore may have a stronger preference over domicile than the VC itself. Thus, it might be argued that the location of the VC's attorney is what matters, not the location of the VC. But VCs are typically advised either by in-house counsel (Kobylarz 2006) or by law firms located in their home state. We asked 10

nation thus predicts that a start-up is more likely to incorporate or reincorporate in Delaware as the number of out-of-state VCs increases.

Start-ups financed by VCs provide a particularly desirable empirical setting for testing the lingua franca theory. First, there is considerable variation in each start-up's mix of investors. Some start-ups receive financing from out-of-state investors, while others are financed exclusively by in-state investors. In contrast, public firms lack such cross-sectional variation because there is no control group of public firms whose investors are all (or even predominantly) located in a single state. Second, start-ups provide longitudinal variation in both their mix of investors and their state of incorporation. In particular, start-ups typically receive financing over several rounds, and the identity of participating investors often changes from one round to the next (Gompers 1995; Broughman and Fried 2012) along with the firm's domicile.[5]

We find, consistent with the lingua franca hypothesis, that having more out-of-state investors significantly increases the likelihood of Delaware incorporation in the first round of financing. Everything else 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 percent). We also find, consistent with the lingua franca hypothesis, that 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 4–6 percentage points.

The lingua franca hypothesis also predicts that in-state investors—which are likely to be familiar with both Delaware and their home-state corporate law—will have a relatively weak preference, if any, for home-state law. Consistent with this prediction, the number of in-state investors participating in each round of financing has little effect on choice of domicile. In-state investors appear to be relatively indifferent between Delaware and the home-state law, while out-of-state investors tend to prefer Delaware.

We also divide out-of-state investors into two groups: those that have some familiarity with home-state corporate law because they have previously invested in a home-state-domiciled firm and those that do not have such exposure to home-state corporate law. Consistent with the lingua franca effect, we find that a start-up is less likely to incorporate in Delaware if its out-of-state VC investors have already invested in firms incorporated in the start-up's home state and thus have greater familiarity with home-state corporate law. In other words, 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 start-up's home-state corporate law.

Our results are statistically significant and robust to alternative econometric

prominent VC firms in our sample about the location of their legal counsel; each of the seven VC firms that responded to our query reported that its counsel was located in the VC firm's home state. Thus, to the extent that it is the VC's counsel's location that matters for lingua franca, we believe it is reasonable to treat the location of the VC firm as a proxy for the location of the VC's counsel.

[5] Because VC-backed firms can easily (and frequently do) change domicile, the network effect described in Klausner (1995), which arises when firms must make a long-term commitment to a particular domicile, is less likely to be present in the start-up setting.

specifications. We control for a variety of factors that may affect choice of domicile such as start-up firm characteristics, the law firm representing the start-up firm, VC reputation, and characteristics of home-state corporate law. In separate specifications, we also include state dummy variables in place of the corporate law variables.

Of course, omitted variables could correlate with both domicile and the number of out-of-state investors. For example, a more complex firm may both face a higher likelihood of litigation, which could in theory increase the value of Delaware corporate law, and require financing from out-of-state investors. If so, unobserved characteristics of the start-up firm would independently increase both its need for out-of-state financing and its likelihood of choosing Delaware.

To address endogeneity concerns, we employ two 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. This first-differences approach eliminates potential bias due to time-constant unobserved traits of each start-up. Under this identification strategy, we obtain statistically significant results consistent with a lingua franca effect.

Second, we create a VC fixed-effects model that examines variation within each VC's portfolio. We compare the use of Delaware domicile when a VC invests at home with when the same VC invests out of state. This approach enables us to eliminate potential bias due to unobserved variation across different VC firms. We find, consistent with a lingua franca effect, that the same VC is likely to use Delaware domicile more frequently when investing out of state than when investing in state.

To illustrate by way of a specific VC firm, California-based Kleiner Perkins is approximately 18 percentage points more likely to use Delaware incorporation when it invests in a start-up located outside California than when it invests in one located in California (100 versus 81.6 percent), and when Kleiner Perkins invests in a California-based start-up that is financed solely by California-based VC firms, the likelihood of Delaware incorporation drops to 64.3 percent. While Kleiner Perkins exhibits a relatively strong lingua franca effect, its domicile preferences reflect those of VC firms in aggregate: they are more likely to insist on Delaware law out of state than in state.

Not surprisingly, we find that factors other than lingua franca 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 start-ups represented by regional rather than national law firms are more likely to incorporate in their home states. Our results suggest, however, that lingua franca is likely to be a more important determinant than these other two factors.

It is important to emphasize that our results may significantly understate the

extent to which the lingua franca effect (rather than other factors) drives the use of Delaware domicile. Because Delaware has become such a dominant player in the market for incorporations, in any given state there may well be investors (and lawyers) who are more familiar with Delaware law than with that state's own law (Carney, Shepherd, and Shepherd 2012). A firm financed entirely by such in-state investors might thus choose Delaware simply for reasons of familiarity. Put differently, Delaware law may also serve as a lingua franca for in-state investors, some of whom may not be fluent in home-state law. Our methodology enables us to detect only the lingua franca effect arising from the presence of out-of-state investors.

This project contributes to the empirical literature on corporate charters in three respects. First, we identify a new dimension to domicile decisions. Researchers have previously identified three types of factors bearing on domicile choice: (1) inherent features of home-state corporate law, including antitakeover statutes (Subramanian 2002; Bebchuk and Cohen 2003; Ferris, Lawless, and Noronha 2006), flexibility and judicial quality (Kahan 2006; Dammann and Schündeln 2011), whether the home state has adopted the Revised Model Business Corporation Act (Bebchuk and Cohen 2003), and franchise taxes (Romano 1985); (2) whether the corporation's law firm is regional or national (Daines 2002); and (3) characteristics of the corporation itself, including the size of the firm (Bebchuk and Cohen 2003; Dammann and Schündeln 2011). Our study suggests a fourth dimension to domicile decisions: the characteristics of investors and in particular the familiarity of investors with different corporate laws.

Second, our study provides additional evidence that Delaware's continued success is not due solely to the inherent quality of its corporate law but rather is in part due to investors' relative familiarity with it. Klausner (1995) argues that network effects arising from the presence of so many firms incorporated in Delaware may prevent a state from competing with Delaware even if that state offers better law. The learning benefits associated with the repeated use of Delaware provisions (Kahan and Klausner 1997) could have similar anticompetitive effects. Our study suggests yet another reason why another state may have difficulty competing with Delaware. For that state to be successful, enough lawyers would need to learn a second or third "language." But the expected benefit of learning a second or third language will be low given that Delaware fluency already allows a corporate attorney in any state to communicate with most corporate attorneys in that state and in other states. As a result, lawyers will be reluctant to learn a new language, and any state seeking to challenge Delaware is likely to fail to acquire market share. This lingua franca effect further raises the barrier to competition and may hinder desirable state-level legal innovation (Carney, Shepherd, and Shepherd 2012).

Third, this project contributes to the literature on how VCs influence the governance of start-up companies. Prior work has shown that VCs negotiate for a complex bundle of cash-flow and control rights (Kaplan and Stromberg 2003) that typically includes board seats (Lerner 1995; Broughman 2013), protective provisions (Bengtsson 2011), and conversion rights (Schmidt 2003; Hellmann

2006). The ability of VCs to realize their cash-flow rights depends in part on where the firm is domiciled (Broughman and Fried 2010). Our study extends this literature by showing that VC investors influence the choice of corporate law that will govern the start-up.

For methodological reasons, our study focuses on private firms. But it is worth mentioning its implications for the domicile choices of public firms. If private firms 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 public investors around the country through an IPO may also choose Delaware law in part to provide a common language for their shareholders. Indeed, we find that 93 percent of the firms in our sample that ultimately went public were incorporated in Delaware at the time of their IPO, a level that is significantly higher than the 78 percent baseline rate of Delaware incorporation for our sample as a whole.

The remainder of the paper is organized as follows. Section 2 describes our data set and provides summary statistics on 1,850 firms' states of incorporation and reincorporation. Section 3 provides baseline empirical results, testing our hypothesis with both cross-sectional and longitudinal data. Section 4 uses VC fixed-effects regressions to address potential endogeneity concerns in the baseline results. Section 5 considers alternative explanations for the correlation between out-of-state investors and Delaware incorporation. Section 6 concludes.

2. Data

To test the lingua franca prediction—that the likelihood of incorporation or reincorporation in Delaware increases with the number of out-of-state investors—we use data from a sample of VC-backed start-up firms. This section describes our data and provides summary statistics on state of incorporation and reincorporation for the firms in our sample.

2.1. Data Sources

Data were obtained from the VentureXpert (VX) database provided by Thomson Financial. Our sample is limited to U.S.-based start-ups that received their first round of VC investment between January 1, 2000, and December 31, 2002, and received at least $5 million in total VC financing over all rounds of investment.[6] These criteria yield a sample of 1,998 start-up firms.[7]

VentureXpert does not include firm domicile in its database. We use public records data from Lexis-Nexis and the Delaware Secretary of State to match

[6] Limiting our analysis to firms that received at least $5 million in total financing enables us to focus on higher-quality firms, where domicile is likely to matter more.

[7] We collected the data in 2008. Because VentureXpert (VX) appears to have since added information about other firms that were 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.

each firm in our sample with incorporation records.[8] Matching by use of the firm name provided by VX, we identified the state of incorporation for 1,850 of the 1,998 firms in our original sample, a 93 percent match rate. These 1,850 firms received a total of 6,217 rounds of financing.

2.2. Sample Description

Tables 1–4 provide 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 (Table 4). Start-ups in our sample received, on average, $36.8 million over 3.6 rounds of VC financing (Table 1). The median firm received funding from five different investors, of which two were out-of-state investors. Table 4 shows exit outcomes as reported by VX. Of the 1,850 firms, approximately one-third of the sample firms had an exit—either an IPO ($n = 103$) or a private sale ($n = 536$). The remaining two-thirds were, as of 2008, either defunct ($n = 295$) or active ($n = 916$).

2.3. States of Incorporation and Reincorporation

For each firm in our sample, we collected data on the initial state of incorporation and any subsequent reincorporation. Consistent with studies of public firms (Daines 2002; Bebchuk and Cohen 2003) and private firms (Dammann and Schündeln 2011), we find that a start-up firm typically makes a binary choice, incorporating either in its home state or in Delaware. Table 2 shows that just over two-thirds (67.8 percent) of sample firms choose Delaware as the initial state of incorporation, and, of the remaining 32.2 percent, most (28.7 percent) incorporate in their home states. Only 3.5 percent of sample firms choose to incorporate in a jurisdiction other than Delaware or their home state.

Larger firms are more likely to incorporate in Delaware and therefore less likely to incorporate in their home state. Table 3 divides sample firms into quintiles based on the total amount of VC financing received over the life of the firm and reports the final state of incorporation for each quintile.[9] In the largest quintile, 89.2 percent of the firms use Delaware; in the smallest quintile, only 69.6 percent of the firms use Delaware.

The bimodal choice—between Delaware and home state—is especially pronounced in the final state of incorporation. Figure 1 displays each firm's final state of incorporation relative to its headquarters location. For ease of presentation, Figure 1 includes results only from firms located in states with at least 15 observations (or in Delaware or Nevada). Delaware and Nevada are included

[8] The Lexis-Nexis public records database includes domicile data (via secretary-of-state filings) for locally domiciled firms of all states except Delaware. Information about Delaware domicile was obtained from doing-business forms filed by Delaware-domiciled firms in their home states and from the State of Delaware, Department of State: Division of Corporations (https://delecorp.delaware.gov/tin/GINameSearch.jsp).

[9] The "final state" is the state of incorporation at the time of exit (initial public offering [IPO] or acquisition) or, if there has been no exit event, the state of incorporation as of 2008.

Table 1
Descriptive Statistics for Sample Firms

	Mean	Median	SD
Financing rounds	3.58	3	2.19
Investors	5.91	5	3.92
Out-of-state investors	2.88	2	2.76
In-state investors	1.82	1	1.83
Amount invested ($millions)	36.85	23.2	48.58

Note. The sample consists of 1,850 U.S.-based start-ups that received first-round venture capital financing between January 1, 2000, and December 31, 2002. The identities of a start-up'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 (that is, the total may include investors whose identity and location are not disclosed).

Table 2
State of Incorporation for Sample Firms

	Original State of Incorporation		Final State of Incorporation		
	N	%	*N*	%	Change
Delaware	1,254	67.8	1,457	78.8	11.0
Home state	531	28.7	359	19.4	−9.3
Other state	65	3.5	34	1.8	−1.7

Note. The sample consists of 1,850 U.S.-based start-ups that received first-round venture capital financing between January 1, 2000, and December 31, 2002. The most commonly selected other states chosen as the final state of incorporation are Nevada (n = 5), California (n = 4), Massachusetts (n = 3), Ohio (n = 3), and Pennsylvania (n = 3).

because they represent important chartering destinations. The graph is jittered to avoid points appearing directly on top of each other. Approximately 98 percent of firms choose to incorporate either in their home states (the diagonal cluster of points) or in Delaware (the horizontal cluster of points).

When reincorporation occurs, it is almost always into Delaware. From the initial to the final state of incorporation, Delaware's share increases from 67.8 to 78.8 percent, while the home-state share declines from 28.7 to 19.4 percent and other states' share declines from 3.5 to 1.8 percent (Table 2). Almost one-third of firms originally incorporated in their home states reincorporate in Delaware. Table 5 provides detailed data on reincorporations in our sample. A total of 217 firms reincorporated, out of which 205 (approximately 95 percent) switched to Delaware. This change is typically made in connection with a new round of financing, often the first or second round (Table 5).

2.4. Investor Location and Delaware Incorporation

Tables 6 and 7 report the likelihood of Delaware incorporation as a function of the mix of in-state and out-of-state investors. The general pattern, for both

Table 3
Final State of Incorporation (%), by Firm Size Quintile

	Smallest 1	2	3	4	Largest 5
Delaware	69.6	75.4	79.6	79.2	89.2
Home state	26.7	22.1	18.8	19.2	10.8
Other state	3.6	2.5	1.6	1.6	0

Note. The sample consists of 1,850 U.S.-based start-ups that received first-round venture capital financing between January 1, 2000, and December 31, 2002. Quintiles are based on the total amount of financing raised by each firm over all rounds of investment.

Table 4
Likelihood of Delaware Incorporation by Exit Status and Industry Sector

		Delaware as Original State		Delaware as Final State		%
	N	*N*	%	*N*	%	Change
Exit status:						
Initial public offering	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
Sector:						
Computer related	905	615	67.9	710	78.5	10.6
Non–high tech	99	58	58.5	70	70.7	12.2
Communications or media	366	255	69.6	286	78.1	8.5
Biotech	129	95	73.6	110	85.3	11.7
Medical or life sciences	158	110	69.6	135	85.4	15.8
Semiconductor or other electronic	193	121	62.7	146	75.6	12.9

Note. The sample consists of 1,850 U.S.-based start-ups that received first-round venture capital financing between January 1, 2000, and December 31, 2002.

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 on domicile choice. For example, in later rounds (Table 7), firms receiving financing from one out-of-state investor incorporate in Delaware with 71–79 percent probability, whereas firms receiving financing from four or more out-of-state investors incorporate in Delaware with 92–94 percent probability. A move from one out-of-state investor to four or more out-of-state investors is associated with an increase of approximately 17 percent in the probability of Delaware incorporation, whereas a similar change in the number of in-state investors (from one to more than four) is associated with an increase of only 2 percent in the likelihood of Delaware incorporation. These results are consistent with a lingua franca effect. Out-of-state investors exhibit a clear preference for Delaware incorporation, whereas in-state investors appear to be indifferent between home-state and Delaware incorporation.

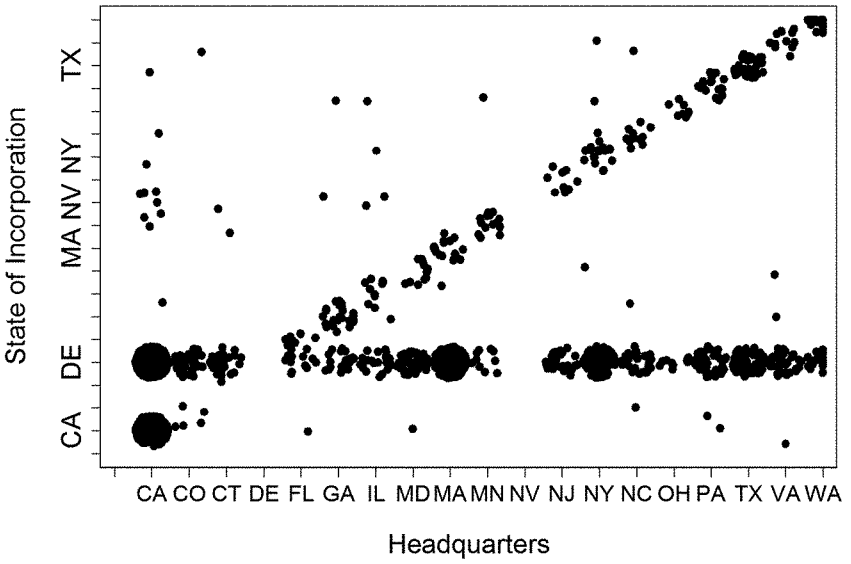

Figure 1. Scatter plot of state of incorporation relative to headquarters location

2.5. Investors' State-Dependent Domicile Preferences

We examine the use of Delaware in each VC's portfolio of investments. Figure 2 compares the likelihoods of Delaware incorporation in two situations: when a VC invests in its home state and when the same VC invests out of state. For all VCs in our sample that participated in at least 30 rounds of financing, the figure plots the likelihood that a portfolio firm will incorporate in Delaware as a function of whether the start-up is headquartered in the same state as the VC investor. 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 2 plots two points: the likelihood of Delaware incorporation when investing in state and the likelihood when investing out of state. The gap between these points is a rough measure of the lingua franca effect. Figure 2 also includes three Lowess curves that reflect the likelihood of Delaware domicile for out-of-state portfolio firms (solid line), in-state portfolio firms (dotted line), and in-state portfolio firms where all VCs in the round are located in the start-up's home state (dashed line).

Figure 2 indicates that the lingua franca effect arises primarily from VCs that invest less than 70 percent of their portfolio out of state (which we call regional VCs). Venture capitalists that invest principally out of state (which we call national VCs) use Delaware with higher frequency. For national VCs, the choice between Delaware and home-state law does not seem to depend on where the start-up is located; they are likely to use Delaware domicile both when investing at home and when investing out of state. Why? National VCs may invest out of

Table 5
Destinations and Timing of Reincorporation for Sample Firms

	N	%
Reincorporation destination:		
Delaware	205	94.5
Home state	7	3.2
Other state	5	2.3
Total	217	100
Timing of reincorporation in Delaware ($n = 205$):		
First round (or earlier)	116	56.6
Second round	33	16.1
Third round	22	10.7
Fourth round	9	4.4
Fifth round (or later)	11	5.4
After last round of financing	14	6.8
Total	205	100

Note. The sample consists of 1,850 U.S.-based start-ups that received first-round venture capital financing between January 1, 2000, and December 31, 2002. Of the seven firms moving to home-state domicile, four were in California, and there was one each in Texas, Kentucky, and Maryland. Of firms switching to an "other state" domicile, two went to Nevada, and one each went to Connecticut, Florida, and Virginia. Reincorporation after the first round of financing typically occurs within a 6-month window (3 months on either side) of a new round of financing. Reincorporations not occurring within 3 months of any round are assumed to be in connection with the subsequent round of financing.

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 2 supports the lingua franca hypothesis and shows that, in the aggregate, VCs behave differently when investing in state than when they go out of state.

For illustrative purposes, we report results from four well-known California VC firms in Table 8. For example, Kleiner Perkins is almost 36 percentage points more likely to use Delaware incorporation if it invests in a start-up located outside California than if it invests in a start-up located in California that relies 100 percent on California-based VCs (100 versus 64.3 percent). While Kleiner Perkins exhibits a fairly strong lingua franca tendency—using Delaware domicile for all of its out-of-state investments—it is not particularly unusual. Indeed, the four VCs listed are on average 32 percentage points more likely to use Delaware when investing outside California than when investing in California with other California-based VCs (94.9 versus 62.5 percent). Consistent with the lingua franca effect, the use of Delaware law for in-state investments increases when "foreign" (non-California) VCs participate in the financing.

The domicile choices of these California VCs, and of VCs in aggregate, strongly suggest that the choice of Delaware domicile cannot be fully accounted for by unobserved dimensions of a start-up that have nothing to do with the identity of its investors. For unobserved start-up dimensions to account for the difference in

Table 6

Percentages of Delaware Incorporation in the First Round of Financing

	Out-of-State Investors			
In-State Investors	0	1	2	3+
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

Note. Values indicate the likelihood of Delaware incorporation at the first round of venture capital financing in relation to the number of in-state and out-of-state investors participating in the round.

Table 7

Percentages of Delaware Incorporation in Follow-on Rounds of Financing

	Out-of-State Investors				
In-State Investors	0	1	2	3	4+
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

Note. Values indicate the likelihood of Delaware incorporation in a follow-on round of venture capital financing based on the number of in-state and out-of-state investors participating in the round.

domiciling decisions, one would need to believe that, for firms in VCs' portfolios, home-state firms are, in aggregate, substantially different along these unobserved dimensions than firms outside their home state. To us, this seems unlikely.

3. Baseline Empirical Results

To test the lingua franca hypothesis, we first examine the choice of legal domicile made at the first round of VC financing and then consider reincorporation into Delaware in connection with a subsequent financing round.

3.1. State of Incorporation at the First Round of Venture Capitalist Financing

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

$$\begin{aligned}\text{Delaware} = \alpha + \beta_1 \times \text{Out-of-State Investors} + \beta_2 \times \text{Local Exposure} \\ + \boldsymbol{\beta} \times \boldsymbol{X} + \varepsilon,\end{aligned} \tag{1}$$

where ε is the error term and $\boldsymbol{X}$ is a vector of included control variables. The de-

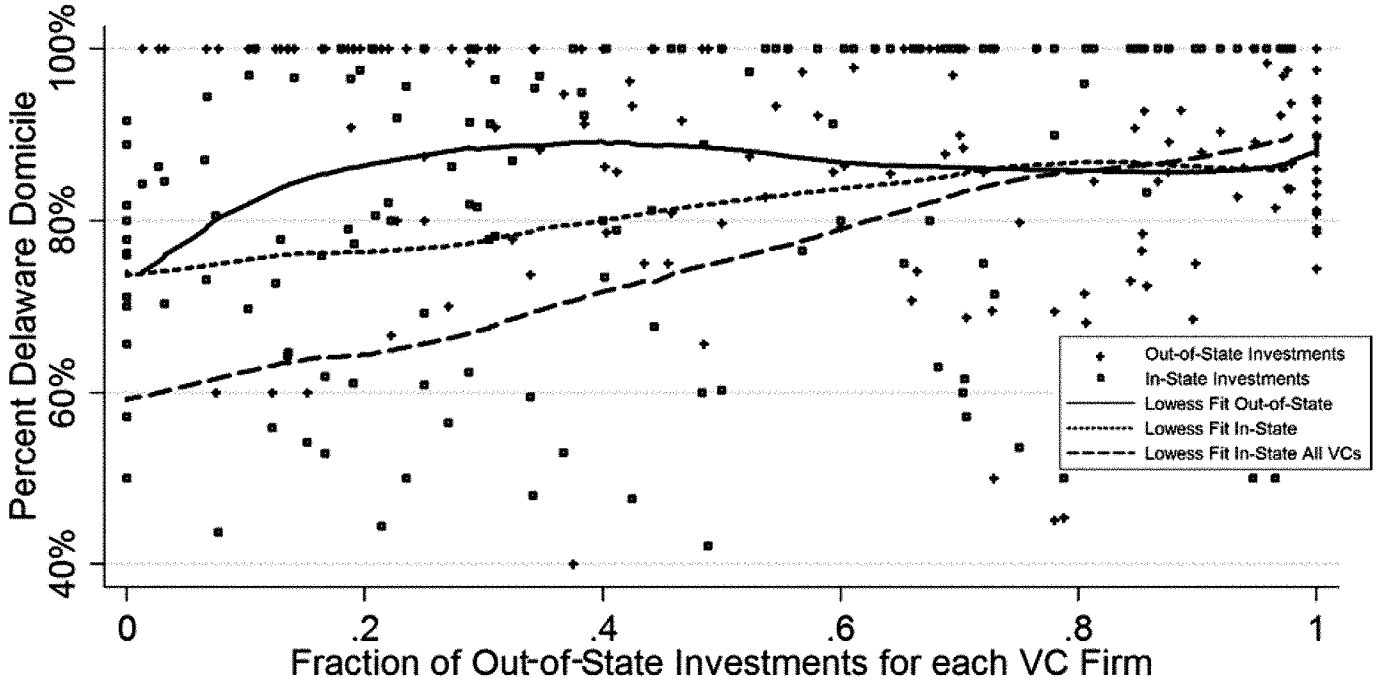

Figure 2. Delaware domicile for venture capitalists' in-state versus out-of-state investments

Table 8
Likelihood of Delaware Incorporation (%) for Portfolio Firms Financed by Select California Venture Capitalists (VCs)

VC Firm	California Headquarters and Only California VCs	California Headquarters	Non-California Headquarters
Accel Partners	76.3	76.0	100.0
Draper Fisher Jurvetson	60.6	60.3	79.7
Kleiner Perkins	64.3	81.6	100.0
U.S. Venture Partners	48.9	61.1	100.0
Average	62.5	69.8	94.9

Note. The sample consists of 1,850 U.S.-based start-ups that received first-round VC financing between January 1, 2000, and December 31, 2002.

pendent variable, Delaware, equals one if the firm is incorporated in Delaware at the time of the first round of financing and zero otherwise.[10] For the 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 at least one of our sample firms that was incorporated in the start-up's home state. The term 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 within our sample period; it does not reflect any familiarity based on a VC's investment activity prior to 2000. Consequently, Local Exposure may be an unreliable proxy for out-of-state investors' familiarity with home-state law in financing rounds occurring early in our sample period.

The terms Out-of-State Investors and Local Exposure provide two proxies for investors' familiarity. The combination of the two variables lets us separately measure the marginal effect of an out-of-state investor with no prior exposure to the start-up's home-state law (β_1) as well as of an out-of-state investor with at least some prior exposure to the start-up's home-state law ($\beta_1 + \beta_2$). The lingua franca hypothesis predicts that $\beta_1 > 0$ and $\beta_2 < 0$. In other words, each additional out-of-state investor will increase the likelihood of Delaware incorporation, but the marginal effect will be smaller for out-of-state investors who have past experience with the start-up's home-state law.

We also control for various firm-level and state-level variables that may affect a

[10] Our dependent variable compares Delaware domicile against both in-state and other-state domicile, lumping these last two groups into one category. Firms that incorporate in a state other than Delaware or their home state are somewhat smaller than firms incorporated in their home state (fewer investors, less financing, fewer rounds of financing). The inclusion of the other-state firms in the same category as in-state firms does not, however, substantially impact our results: we reestimate the models reported in Table 10 excluding other-state firms and find qualitatively similar results.

start-up's state of incorporation. Table 9 defines the variables and provides summary statistics for each.

Table 10 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.[11] We use Size Proxy ($millions) as a proxy for the size and complexity of the firm.[12] To measure VC Reputation, we use the average age of the VC firms participating in the round, as in Gompers (1996) and Hsu (2004).

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 antitakeover protections offered by the home state (Kahan 2006); ATS Index should be relevant only if the firm expects to go public.

Second, we record the franchise tax for the start-up's home state. The variable 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. Thus, we define Franchise Tax as (*a*) + (*b*) − (*c*) − (*d*).[13] Tax rates are defined as of January 1, 2000, and we assume 100,000 shares outstanding (par value = $.001/share). 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 = 0.

Third, to control for the possibility that differences in contracting practices between East and West Coast firms affect incorporation-related decisions (Bengtsson and Ravid 2009), we record whether the firm is headquartered in a state located west of the Mississippi River. Fourth, to address other potential incorporation network benefits, we control for the number of publicly held firms incorporated in the start-up's home state (State Inc. Count) and for whether home-

[11] Because the identities of a start-up'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.

[12] While the aggregate amount invested in the firms across all rounds of financing is obviously not known with precision before the final financing round, we assume that it correlates with parties' ex ante expectations (as of the first financing round) regarding the firm's eventual size and complexity.

[13] By incorporating in its home state rather than in 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.

Table 9

Variable Definitions and Summary Statistics

Variable	Definition	Mean	Median	SD
Delaware	Equals one if the firm is incorporated in Delaware and zero otherwise	.769	1	.422
Out-of-State Investors	Number of out-of-state investors participating in the round	1.765	1	1.929
Local Exposure	Number of out-of-state investors participating in a financing round that have previously financed a sample firm that is incorporated in the start-up's home state	.390	0	.889
Total Investors	Number of venture capitalist (VC) investors participating in the round	3.725	3	2.605
In-State Investors	Number of in-state investors participating in the round	1.243	1	1.399
Investment ($millions)	Amount of financing received in the new round (in millions of dollars)	10.793	6.75	15.145
Size Proxy ($millions)	Aggregate amount of financing that the firm received over all rounds of VC investment (in millions of dollars)	36.069	25	41.911
VC Reputation	Average age, as of 2010, of the VC firms participating in a round of financing	25.828	25	9.988
Judicial Quality	Chamber of Commerce 2001 score for each state's judicial quality	2.147	2.1	.298
Flexibility	Index (0–4) measuring how much flexibility a state's corporate law provides for firms to design their governance arrangements, following Kahan (2006)	3.144	3	.755
ATS Index	Index of antitakeover statutes, as coded in Kahan (2006)	1.848	1	1.951
Franchise Tax	Sum of the home state's initial incorporation fee and its annual franchise tax and/or annual report fee, minus the sum of its foreign qualification and annual foreign report fees, based on tax rates as of January 1, 2000, and an assumption of 100,000 shares outstanding (par value = $.001/share)	−39.270	0	230.520
MBCA State	Equals one if the firm is located in a Model Business Corporation Act state and zero otherwise	.291	0	.454
West of Mississippi	Equals one if the firm is located in a state located west of the Mississippi River and zero otherwise	.564	1	.496
State Inc. Count	Number of publicly held firms incorporated in the start-up's home state	97.649	100	48.613

Note. The financing round (n = 6,217) is the unit of analysis.

state corporate law is based on the Model Business Corporation Act (MBCA State).[14]

Finally, in model 5 we include a set of dummy variables for each state.[15] Because of limited within-state variation in the dependent variable, models 4 and 5 are restricted to start-ups headquartered in states with at least 10 observations and are thus estimated using a smaller sample of firms.

In each model reported in Table 10, 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 increases the likelihood of Delaware incorporation by approximately 6–8 percentage points (β_1). By contrast, in-state investors have a negligible impact on choice of domicile. As is consistent with familiarity driving domicile choices, an out-of-state investor's demand for Delaware incorporation is moderated by Local Exposure (that is, β_2 is negative in all models).[16] If an out-of-state investor has at least some prior exposure to the start-up's home-state law (as observed for our sample period), the firm is somewhat less likely to incorporate in Delaware and more likely to incorporate in its home state. These results are broadly consistent with the lingua franca explanation.

The magnitude of the lingua franca effect is material: 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 percent, nearly halving the likelihood (32 versus 18 percent) that a start-up 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 consider the effect of two legal factors identified in prior research as affecting domicile choice: 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 hypothesis, we examine the likelihood of Delaware incorporation when each variable is 1 standard deviation below its mean, as compared with 1 stan-

[14] 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).

[15] Because of perfect multicollinearity, we cannot include the corporate-law variables and state dummies in the same regression model.

[16] It should be noted that the marginal effect for Local Exposure is statistically significant only 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. To address this concern, we reestimated model 2 with all financing rounds occurring prior to 2001 removed, which reduces the number of observations to 573. In an unreported regression on this reduced sample, we found a marginal effect of −.057 (statistically significant at the 1 percent level) for Local Exposure; the coefficient estimate for Out-of-State Investors remains positive and significant. It is also worth noting that even using the full sample (where there are greater measurement limitations for Local Exposure than in the reduced sample) our baseline results are still as predicted by the lingua franca hypothesis: $\beta_1 > 0$ and $\beta_2 < 0$.

Table 10
State of Incorporation at the First Round of Venture Capital (VC) Financing

	(1)	(2)	(3)	(4)	(5)
Treatment variable:					
Out-of-State Investors	.0793**	.0600**	.0652**	.0612**	.0581**
	(.010)	(.016)	(.017)	(.015)	(.019)
Local Exposure	−.0305	−.0373	−.0569+	−.0411	−.0199
	(.028)	(.030)	(.025)	(.029)	(.025)
Firm-level controls:					
Total Investors		.0235+	.0205+	.0174	.0153
		(.011)	(.011)	(.011)	(.015)
In-State Investors		−.0058	−.0070	−.0041	−.0018
		(.013)	(.013)	(.015)	(.018)
Investment ($millions)		−.0001	−.0013	−.0010	−.0014
		(.001)	(.001)	(.001)	(.002)
Size Proxy ($millions)		.0013**	.0016**	.0017**	.0016**
		(.000)	(.000)	(.000)	(.000)
VC Reputation		−.0011	−.0019+	−.0019+	−.0015
		(.001)	(.001)	(.001)	(.001)
Sector dummies	No	Yes	Yes	Yes	Yes
Year dummies	No	No	Yes	Yes	Yes
State-level controls:					
Judicial Quality				−.1274	
				(.173)	
Flexibility				−.0781	
				(.075)	
ATS Index				−.0036	
				(.029)	
Franchise Tax				.0000	
				(.000)	
MBCA State				.0267	
				(.089)	
West of Mississippi				−.1953**	
				(.062)	
State Inc. Count				−.0006	
				(.001)	
State dummies					Yes
N	1,847	1,847	1,847	1,774	1,774
Pseudo R^2	.034	.049	.073	.097	.148

Note. The sample consists of a cross section of 1,850 U.S.-based VC-backed start-ups. Values are 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, Delaware, equals one if the firm was incorporated in Delaware and zero otherwise. Standard errors (clustered at the state level and calculated via the delta method) are in parentheses.

+ Significant at the 10 percent level; two-sided test.

** Significant at the 1 percent level; two-sided test.

dard deviation above its mean. On the basis of estimates from model 4, a move from 1 standard deviation below its mean to 1 standard deviation above its mean results in Out-of-State Investors being associated with a 16-percentage-point increase (from 69 to 85 percent) in the likelihood of Delaware incorporation, while Judicial Quality is associated with an 8-percentage-point decline (from 81 to 73 percent), and Flexibility is associated with an 11-percentage-point decline (from

82 to 71 percent). While each of these effects is economically meaningful, the lingua franca effect appears to have a larger effect on incorporation choice than does flexibility or judicial quality.

3.2. 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.

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 start-up firm (i) and round of financing (t). We limit our attention to situations in which the firm was not already incorporated in Delaware.[17] Our panel thus consists of a subsample of 594 firms and 1,546 financing rounds.

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

$$\begin{aligned}\Delta\text{Delaware} = {} & \beta_1 \times (\Delta\text{Out-of-State Investors}) + \beta_2 \times (\Delta\text{Local Exposure}) \\ & + \boldsymbol{\beta} \times \Delta \boldsymbol{X} + \varepsilon,\end{aligned} \tag{2}$$

where Δ indicates the change from round $t - 1$ to round t, ΔDelaware equals one if the firm reincorporates to Delaware in round t and zero otherwise, ΔOut-of-State Investors equals the number of Out-of-State Investors participating in round t minus the number of Out-of-State Investors participating in round $t - 1$, and ΔLocal Exposure equals Local Exposure in round t minus Local Exposure in round $t - 1$. If some Out-of-State Investors who participated in a prior round do not participate in the new round, it is possible for ΔOut-of-State Investors to take negative values.[18] The first-differences approach eliminates all time-constant variables, both observed and unobserved effects (Wooldridge 2002).[19] This forces

[17] 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).

[18] 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 0. To address the possibility that first-round reincorporations are different from reincorporations 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.

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

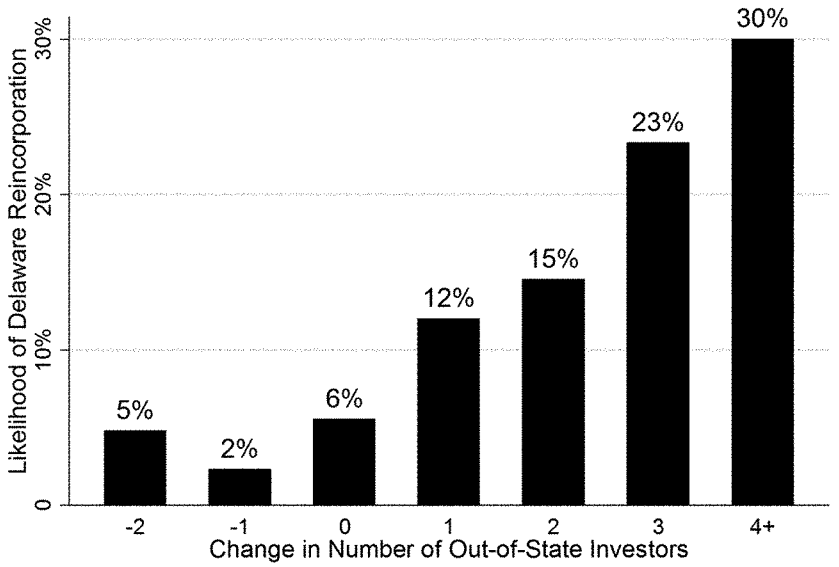

Figure 3. The likelihood that a non-Delaware firm will reincorporate in Delaware in connection with a new round of financing.

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 for firms not incorporated in Delaware prior to the round. The horizontal axis in Figure 3 shows ΔOut-of-State Investors, while the vertical axis measures the likelihood of reincorporation in Delaware. For example, if a firm adds three out-of-state investors in a new round of financing, there is a probability of approximately 23 percent that it 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 percent.

Reincorporation regression estimates are reported in Table 11. The results are consistent with the lingua franca hypothesis. The arrival of out-of-state investors increases the likelihood of reincorporation in Delaware. We also find that increased familiarity (ΔLocal Exposure) with home-state law decreases the likelihood of reincorporation in Delaware. These results are significant at the 1 percent level in each model reported in Table 11. Reincorporation in Delaware is most likely to occur when adding out-of-state investors with no prior exposure to home-state law, of intermediate likelihood when adding out-of-state investors

Table 11
Reincorporation in Delaware: Ordinary Least Squares Regression Models

	(6)	(7)	(8)
Treatment variable:			
Out-of-State Investors	.0627**	.0440**	.0442**
	(.009)	(.012)	(.012)
Local Exposure	−.0315**	−.0233**	−.0246**
	(.010)	(.008)	(.009)
Firm-level controls:			
Total Investors		.0096	.0104
		(.007)	(.007)
In-State Investors		−.0153	−.0175
		(.011)	(.011)
Investment ($millions)		−.0005	−.0004
		(.001)	(.001)
VC Reputation		.00004**	.00009**
		(.0000)	(.0000)
Round dummies	No	No	Yes
Year dummies	No	No	Yes
R^2	.051	.067	.081

Note. Values are first-difference regression estimates on a sample of 1,850 U.S.-based start-ups that received first-round venture capital financing between January 1, 2000, and December 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 1,546 rounds. The dependent variable, ΔDelaware, equals one if the business reincorporated in Delaware in the round of financing and zero otherwise. Standard errors, clustered at the firm level, are in parentheses.

** Significant at the 1 percent level; two-sided test.

with some prior exposure to home-state law, and 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 results thus provide further support for the lingua franca hypothesis.

4. Venture Capitalist Fixed-Effects 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. For example, 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 tend to choose Delaware law for reasons other than lingua franca (for example, because of the inherent quality of Delaware law), we may 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 that finance each start-up.

To address this concern, we employ a VC fixed-effects analysis in which each VC investment in a firm in their portfolio is treated as a separate observation. To ensure meaningful within-group variation, we limit our analysis to VC firms that participated in at least 30 rounds of financing involving start-up firms in our sample. This gives us a subsample of 173 VC firms and 13,845 portfolio investments—including 3,397 first-round investments and 5,351 at-risk follow-on-round investments. Using this sample of portfolio investments, we use fixed-effects regression to estimate the following function:

$$\begin{aligned}\text{Delaware} = \alpha + \beta_1 \times \text{Out-of-State VC} + \beta_2 \times \text{Exposed VC} \\ + \boldsymbol{\beta} \times \boldsymbol{X} + \text{VC}_i + \varepsilon,\end{aligned} \tag{3}$$

where Out-of-State VC equals one if the VC investor is headquartered in a different state than the start-up firm and zero if both the VC and the start-up are headquartered in the same state, Exposed VC equals one if the VC investor had previously invested in another start-up firm incorporated in the start-up's home state and zero otherwise, and VC_i are a series of fixed effects for each VC firm. 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 vector $\boldsymbol{X}$ includes other factors that could affect the choice of domicile: the total amount invested in the round, the number of other out-of-state VCs participating in the financing round, the total number of other VCs participating in the financing round, and dummy variables for sector, year, and round.

We separately estimate equation (3) for the first round of financing (models 9 and 10) and for follow-on rounds in which the firm was at risk of reincorporating in Delaware (models 11 and 12). In models 10 and 12, we also include all of the state-level variables used in model 4 to control for differences in state corporate law that may impact the VC's choice of domicile. To avoid double counting subsequent investments made by the same VCs, models 11 and 12 include only the first investment made by each VC into the firm, which gives us a sample of 4,432 for model 11 and a sample of 4,282 for model 12. Results are reported in Table 12.

For both incorporation in the first round of financing and reincorporation in subsequent rounds, we find that VC investors are approximately 5 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 that this result is not driven by unobserved differences between the VC firms that finance each start-up. Our results are less conclusive for our second treatment variable, Exposed VC. We find a null

Table 12
Venture Capitalist (VC) Fixed-Effects Regression Models

	First Round		At Risk of Delaware Incorporation in Subsequent Round	
	(9)	(10)	(11)	(12)
Treatment variables:				
Out-of-State VC	.0551+	.0511+	.0417+	.0433+
	(.025)	(.026)	(.024)	(.025)
Exposed VC	.0026	.0114	−.0245	−.0227
	(.037)	(.038)	(.032)	(.033)
Control variables:				
Investment ($millions)	.0000+	.0000+	.0000**	.0000**
	(.000)	(.000)	(.000)	(.000)
Size Proxy ($millions)	.0006**	.0007**	.0006**	.0006**
	(.000)	(.000)	(.000)	(.000)
Other Out-of-State VC	.0225**	.0156+	.0290**	.0228**
	(.006)	(.006)	(.005)	(.006)
Other VC Total	.0194**	.0196**	.0111**	.0119**
	(.004)	(.004)	(.004)	(.004)
Judicial Quality		−.1054+		−.1023+
		(.055)		(.051)
Flexibility		−.0636**		−.0494+
		(.025)		(.023)
ATS Index		.0104		.0067
		(.012)		(.011)
Franchise Tax		−.0001+		−.0001+
		(.000)		(.000)
MBCA State		.0263		.0476+
		(.025)		(.023)
West of Mississippi		−.1466**		−.1425**
		(.039)		(.034)
State Inc. Count		.0006		−.0003
		(.000)		(.000)
Round dummies	No	No	Yes	Yes
N	3,397	3,272	4,432	4,282
VC clusters	172	172	173	173
R^2 (within)	.071	.099	.257	.273

Note. The sample is limited to venture capitalist firms that participated in at least 30 rounds of financing involving the start-up firms in the full sample. The unit of analysis is each investment. 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 start-up was headquartered in a different state than the VC firm and zero otherwise. Models 11 and 12 are limited to the first investment by each VC in the company. Robust standard errors are in parentheses. All regressions include sector and year dummy variables and VC fixed effects.

+ Significant at the 10 percent level; two-sided test.

** Significant at the 1 percent level; two-sided test.

result for the first round of financing. As noted above, this is likely due to the fact that our measure of Exposed VC is less accurate in first-round financings. For follow-on financings, the coefficient on Exposed VC is negative, as predicted by the lingua franca explanation, but not quite significant at normal levels. Overall, the VC fixed-effects results support the lingua franca explanation for the use of Delaware domicile and provide further confirmation that our findings are not

driven by unobserved differences between the VC firms that finance different start-ups.[20]

5. Alternative Causal 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 four alternative explanations for this relationship and discuss why they are unlikely to explain away the lingua franca results.

5.1. Neutral Venue

One might believe that the correlation between out-of-state investors and Delaware incorporation is due to the preference for a neutral litigation venue: an out-of-state investor may prefer that a start-up incorporate in Delaware rather than stay at home so that the out-of-state investor can have an unbiased adjudicator rather than a home-state judge in the event of a dispute. While this explanation is plausible on the surface, it is important to remember that Delaware domicile is neither necessary nor sufficient for an out-of-state investor to obtain a neutral venue. Delaware incorporation is not necessary because the parties could contract directly over venue through a choice-of-forum clause in the charter or elsewhere that requires the parties to resolve disputes in a specified venue. For example, the corporation's charter could require that all disputes be resolved by arbitrators or in the courts of a particular state. If parties wish to have their disputes heard outside of home-state courts, they can easily do so without domiciling in Delaware.

Delaware domicile is not sufficient to ensure that a Delaware court will handle a dispute because suits arising in Delaware-domiciled firms can be (and often are) brought elsewhere, typically in federal or state courts where the firms are headquartered (Armour, Black, and Cheffins 2012). And although litigation between participants in start-ups is relatively uncommon, it is also easy to find cases involving Delaware-domiciled firms that are adjudicated outside of Delaware.[21] As the Delaware chancery court has reminded lawyers, the only way to ensure that disputes arising in Delaware-domiciled firms are heard in Delaware is to put a forum selection provision in the charter (In re *Revlon Inc. S'holders Litig.*, 990 A.2d 940, 960 [2010]).[22] As far as we know, such provisions have not been widely used by start-ups. Thus, the desire for a neutral venue (that is, to avoid the bias of

[20] In addition to the VC fixed-effects analysis reported here, we also estimated a two-stage least squares model using the supply of in-state funds as an instrument for the number of out-of-state investors and found results consistent with the lingua franca explanation. These results are available on request.

[21] See *Flying Disc Investments LP v. Baker Communications Fund II* (Super. Ct. Calif., SF County, 2009, No. CGC 05447294), in which California founders of a Delaware-domiciled California-based firm litigated in California against against New York VC investors, and *John P. Kennedy v. Venrock Associates* (348 F.3d 584 [7th Cir. 2003]), in which common shareholders of a Delaware-domiciled firm litigated in Illinois against out-of-state VC investors.

[22] For a discussion of forum selection clauses, see Armour et al. (2012, pp. 1392–94).

home-state judges) does not appear capable of explaining our results that a firm is more likely to domicile in Delaware if it has more out-of-state investors.

5.2. *Home-State Familiarity*

Almost all firms domicile either in Delaware or in their home state. Thus, the positive correlation between the fraction of out-of-state investors and Delaware domicile implies a positive correlation between the fraction of in-state investors and home-state domicile. One might think that these results are driven not by Delaware law's use as a lingua franca but rather by in-state investors' relative familiarity with, and thus excessive use of, home-state law. In particular, the observed patterns might appear consistent with a world in which Delaware law is of higher intrinsic quality than in-state law and each in-state investor must incur learning costs to use Delaware law but not home-state law. In such a world, firms financed mostly or entirely by in-state investors would often choose home-state law to save learning costs even when the investors know that their law is otherwise inferior to Delaware's.

If home-state familiarity were driving our results, we would expect an increase in the number of in-state investors (everything else equal) to increase the likelihood of home-state domicile. However, we find (Tables 5 and 6) that the number of in-state investors has little impact on the choice between home-state and Delaware incorporation. This finding suggests that while out-of-state investors have a strong preference for Delaware (when they invest out of state), in-state investors are relatively indifferent between home-state and Delaware domicile. Our results thus appear more consistent with the lingua franca explanation than with home-state familiarity.[23]

5.3. *California Effect*

More than 40 percent of our sample firms are headquartered in California. Venture capitalist norms (Suchman and Cahill 1996) and contracting practices (Bengtsson and Ravid 2009) may be different in California than elsewhere. More important, California has an unusual long-arm statute (Cal. Corp. Code, sec. 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). Section 2115 thus subjects a California-based firm domiciled in Delaware

[23] Further evidence that home-state familiarity is not driving our results comes from the fact that firms rarely incorporate in a state other than Delaware or the firm's home state. If home-state familiarity were driving our results, we would expect to see more firms incorporating in a third jurisdiction, namely, the out-of-state investor's home state. For example, if a group of California VCs finance a start-up located outside California, home-state familiarity would predict that, everything else equal, these VCs would favor California incorporation for the out-of-state firm, not Delaware. We do not observe this behavior (see Figure 1). Instead, Delaware functions as a national standard regardless of investor location, a pattern that is more consistent with the lingua franca explanation than with home-state familiarity.

Table 13
Robustness Checks

	First Round		Reincorporation		
	Non-California Firms (13)	Law Firm Data (14)	Non-California Firms (15)	National Law Firm (16)	Regional Law Firm (17)
Treatment variable:					
Out-of-State Investors	.0370+	.0635**	.0428+	.0333	.0380+
	(.022)	(.023)	(.019)	(.031)	(.019)
Local Exposure	−.1164+	−.0134	−.0334+	−.0040	−.0356+
	(.065)	(.034)	(.016)	(.008)	(.016)
Firm-level controls:					
Total Investors	.0309+	.0117	.0112	.0120	.0162
	(.018)	(.017)	(.013)	(.015)	(.011)
In-State Investors	−.0031	−.0138	.0245	.0044	−.0281+
	(.027)	(.019)	(.024)	(.021)	(.016)
Investment ($millions)	.0018	.0015	−.0006	−.0007	−.0006
	(.002)	(.002)	(.001)	(.003)	(.001)
VC Reputation	−.0012	−.0015+	.0001**	.0000	.0001+
	(.001)	(.001)	(.000)	(.000)	(.000)
National Law Firm		.0498+			
		(.021)			
Sector dummies	Yes	Yes	No	No	No
Round dummies	N.A.	N.A.	Yes	Yes	Yes
N	1,091	1,022	765	284	635
Firm clusters	N.A.	N.A.	324	114	223
Wald χ^2	173.57	467.46	N.A.	N.A.	N.A.
R^2	N.A.	N.A.	.122	.074	.078

Note. Models 13 and 14 report logit marginal effects for the decision to incorporate in Delaware, with Delaware as the dependent variable. Using first-difference (ordinary least squares) regression, models 15–17 estimate the decision for each subsequent financing round, with ΔDelaware as the dependent variable. Models 13 and 15 are limited to sample firms headquartered outside California, and models 14, 16, and 17 are limited to sample firms for which VentureXpert identifies the law firm representing the business. The explanatory variables for the reincorporation models are in first-difference format (that is, Δ). Robust standard errors (calculated using the delta method in models 13 and 14 and clustered at the firm level in models 15–17) are in parentheses. All regressions include year dummy variables.

+ Significant at the 10 percent level; two-sided test.

** Significant at the 1 percent level; two-sided test.

to two sets of corporate laws (California and Delaware) when there are relatively few out-of-state investors, which makes a Delaware domicile less attractive for such a firm. If Delaware domicile is generally beneficial, we would expect section 2115 to produce a correlation between out-of-state investors and Delaware domicile in California, even absent a lingua franca effect. One may thus be concerned that our results are driven by a California effect that has nothing to do with lingua franca.

To address this concern, we exclude firms located in California and then reestimate equations (1) and (2) on a subsample of 1,091 firms headquartered outside California. Regression results for the first round of financing are reported

in Table 13, model 13, and results for reincorporation are reported in model 15. In neither model does the exclusion of California firms qualitatively change our findings.

5.4. *Start-up's Law Firm: Regional or National*

The identity of the law firm representing the start-up is reported in VX only for about half of the firms in our sample. Consequently, the regressions reported in Sections 3 and 4 do not control for the identity of the start-up's law firm, even though that law firm's familiarity with Delaware law (relative to home-state 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 in their home state) if the firm is represented by a national rather than a regional law firm.

Not controlling for the source of the start-up'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 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 a lingua franca effect but rather to the type of law firm advising the start-up.[24]

To address this concern, we identify the law firm representing the start-up for the subsample of 1,022 firms (55 percent of the full sample) where these data are reported by VX. Working with this subsample of firms, we create a new variable, National Law Firm, which equals one if the law firm is listed by Chambers USA as a national law firm (elite or highly regarded) in the area of corporate and mergers and acquisitions practice and zero otherwise.[25]

We then reestimate 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 14). For the reincorporation analysis, we cannot include National Law Firm as an explanatory variable because it is time constant. Instead, we estimate two first-difference models, one limited to firms represented by a national law firm (model 16) and another limited to firms represented by a regional law firm (model 17).

As in Daines (2002), in the first round of financing, firms represented by a national law firm are more likely 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 (at the 1 percent level) in model 14. Using estimates from model 14, a move from 1 standard deviation below its mean to 1 standard deviation above its mean results in Out-of-State Investors being associated with a 17-percentage-point increase (from 65 to 82 percent) in the

[24] 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 start-ups advised by national law firms are more likely to incorporate in Delaware could itself be consistent with a type of lingua franca effect: one that operates through the start-up's law firm rather than through the start-up's investors and their attorneys.

[25] 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 a regional firm.

likelihood of Delaware incorporation, while National Law Firm is associated with a 6-percentage-point increase (from 71 to 77 percent).

For the reincorporation analysis, we find that ΔOut-of-State Investors is positive for both the national law firm and regional law firm subsamples. The reincorporation result is significant only for the regional law firm subsample, presumably because of the small subsample of start-ups represented by national law firms that were incorporated outside Delaware ($n = 114$). In any event, our finding of a lingua franca effect appears robust to the type of law firm representing the start-up.

6. Conclusion

In this paper, we have put forward and tested a lingua franca explanation for a firm's decision to domicile in Delaware rather than in its home state: given that most attorneys are "fluent" in home-state law and Delaware law, a firm raising financing from in-state and out-of-state investors will choose Delaware to provide in-state and out-of-state investors a legal language that all can speak. Studying the domicile decisions of 1,850 VC-backed start-ups, we show that the lingua franca has a significant effect on domicile choices in our sample firms. Indeed, it is more powerful than other domicile-influencing 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, at least in part, due to investors around the country being relatively more familiar with Delaware corporate law than with the corporate laws of other states.

Our study also suggests an additional reason why another state may have difficulty competing with Delaware. That state could not succeed without convincing lawyers to learn a new "language," but the expected benefit to lawyers of learning a second or third language will be low given that Delaware fluency already allows a corporate attorney in any state to communicate with most corporate attorneys in that state and other states. As a result, lawyers will be reluctant to learn a new language. This lingua franca effect further raises the barrier to competition and may hinder desirable state-level legal innovation.

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 that 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, network effects, and learning benefits. 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 the corporate governance of public firms.

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