Regulatory Competition and the

Market for Corporate Law

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Abstract

This article develops an empirical model of firms' choice of corporate laws under inertia. Delaware dominates the incorporation market, though recently Nevada, a state whose laws are highly protective of managers, has acquired a sizable market share. Using a novel database of incorporation decisions from 1995-2013, we show that most firms dislike protectionist laws, such as anti-takeover statutes and liability protections for officers, and that Nevada's rise is due to the preferences of small firms. Our estimates indicate that despite inertia, Delaware would lose significant market share and revenues if it adopted protectionist laws. Our findings support the hypothesis that Delaware faces competitive pressure to maintain its current laws, and that managers are willing to commit to such laws in order to attract capital.

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1   Introduction

There is a longstanding debate in corporate law and governance over the merit of competition for corporate laws. U.S. firms may choose to incorporate in any state, and each state's corporate laws may embed a different set of corporate governance rules. The debate has traditionally been divided between those who believe competition for charters produces efficient corporate laws that maximize firm value (e.g., Winter, 1977; Romano, 1985; Easterbrook & Fischel, 1991; Romano, 1993), and others who argue that legal regimes produced by state competition may benefit managers at the expense of shareholders' interests (e.g., Cary, 1974; Bebchuk, 1992; Bebchuk & Ferrell, 1999; Barzuza & Smith, 2014). Delaware famously dominates the market for incorporations (with more than 60 percent of total incorporations). Proponents of regulatory competition emphasize that Delaware, a state that offers laws that facilitate takeover activity and has a specialized judiciary known for its corporate law expertise, is the winner of this race. Critics, on the other hand, emphasize that many states manage to retain large domestic corporations by offering anti-takeover laws that protect managers, and point to the recent rise in the market share of Nevada, a state that offers very protectionist laws that exempt managers from liability for breach of fiduciary duties. Finally, skeptics of competition argue that it is impossible for states to compete with Delaware by simply replicating its laws, and that relatively few firms reincorporate from one state to another (Klausner, 1995; Kamar, 1998; Kahan & Kamar, 2002; Bebchuk & Hamdani, 2002; Broughman et al., 2014).

In this article we weigh in on this debate by estimating whether firms prefer to be governed by laws that are relatively shareholder-friendly or laws that primarily protect managers' interests.[1] More importantly, we evaluate the intensity of competition by examining whether these preferences are strong enough to generate shifts in market share when states change their corporate laws. If demand for corporate law is inelastic, firms care little about whether

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[1]Following Romano (1985), Bebchuk & Cohen (2003) and Barzuza & Smith (2014), we treat firms as consumers and corporate governance laws as products.

corporate laws facilitate takeovers or entrench managers, and such laws have a limited effect on firms' incorporation decisions. On the other hand, if firms do express preferences for a particular set of laws, then the question is how strong these preferences are, and whether they can generate shifts in market share despite the apparent inertia in firms' incorporation decisions. For example, if firms strongly prefer protectionist laws, there is a concern that managers influence firms to incorporate in states whose laws advance managers' interests at the expense of shareholder welfare, and that states could attract market share by offering more protection for managers. By contrast, if firms manifest preferences for incorporating under less protectionist laws, this is evidence that managers yield to shareholders' pressure to adopt laws that facilitate takeovers and monitoring of management, and thus regulatory competition generates laws that promote shareholders' welfare.

In order to address these questions, we develop a structural model of firms' incorporation decisions over time in the spirit of models of demand in industrial organization (see Ackerberg et al., 2007). We estimate the model using newly formed panel data on public firms' states of incorporation from 1995-2013. In our model, heterogeneous firms may choose to incorporate in one of 51 states each year, and states' laws are treated as bundles of characteristics, such as anti-takeover statutes and laws that protect managers from liability. There are two main advantages to using a structural empirical model of firms' choices instead of "reduced form" methods. First, we can allow firm heterogeneity to be reflected in firm preferences. For example, large firms with high institutional shareholding may be more attentive to shareholders' interests than small firms with high insider ownership.[2] Second, we can use the model to consider where firms would decide to incorporate following counterfactual changes in states' laws. Without evaluating such counterfactuals, it is impossible to assess the intensity of regulatory competition, and whether states face significant pressure on the demand side to maintain shareholder-friendly laws or laws that protect managers.

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[2]While we follow the literature on corporate charters in treating firms as consumers, allowing for firm heterogeneity accounts for the fact that firms' decisions are the product of internal dynamics between shareholders and managers.

A key feature of the model is that firms' decisions may be subject to "rational" inertia. Given that most firms tend to stay incorporated in the same state, it is unrealistic to assume that each firm makes a new incorporation decision every year. Firms may be sluggish to respond to legal changes, and thus failure to reincorporate following legal changes does not necessarily imply indifference to the substance of the law. Thus, we assume that after the initial incorporation decision when a firm becomes public, each firm makes a conscious choice of its state of incorporation with only some probability. We estimate this probability from the data. By adding the inertia element, we identify firms' preferences primarily from those firm year observations in which firms make conscious incorporation decisions, rather than from the decision to stay in the same state. The model we develop is related to recent models of decision-making that allow for rational inertia in other contexts, such as consumers' inattention to cars' energy efficiency (Sallee, 2014) and choice of Medicare Part D plan (Ho et al., 2017).

Our data is novel in two main respects. First, most existing databases do not include accurate historical information on firms' states of incorporation. We address this issue by parsing public disclosure documents (10-Ks, 8-Ks and 10-Qs) available on the SEC website to retrieve accurate historical information on all public firms for which we have financial data. Our final database consists of more than 80,000 firm year observations and 8,700 firms. Second, we focus not only on anti-takeover laws, but also add indices to capture the level of liability protection for directors and officers under each state's laws. These indices measure the extent to which firms can exempt and indemnify managers for violating their fiduciary duties. The main motivation for constructing these indices is to assess recent claims that Nevada has attracted firms by exempting directors and officers from the duty of loyalty.

Our main finding is that inertia in decision-making camouflages the extent to which firms may prefer particular corporate governance provisions. Firms of average size and institutional ownership show strong dislike for protectionist laws, such as anti-takeover statutes, and laws that protect officers from liability. Aversion for these laws is particularly strong for large

firms with high institutional shareholding, and it increases when the takeover activity in the relevant industry increases. More importantly, demand for these laws is sufficiently elastic to generate market shifts. Our counterfactual analysis indicates that if Delaware changed its laws to adopt stronger anti-takeover protections, it could lose about 11 percent of its market share and between $35-$70 million in franchise taxes per year. These findings are consistent with other studies of regulatory competition that support the "bonding" hypothesis, which asserts that managers are willing to commit to stronger shareholder monitoring to attract capital (see e.g., Doidge et al., 2004; Karolyi and Taboada, 2015).

We further find that the recent shift of firms to Nevada is mainly due to its strong liability protections for officers. However, such protections appeal to the preferences of small firms with low institutional shareholding. Therefore, Nevada does not seem to create pressure on Delaware to cater to managerial interests, as Delaware's revenues derive primarily from larger firms that pay higher franchise fees. The results thus also support the hypothesis that regulatory competition promotes market segmentation and regulatory diversity by allowing heterogeneous firms to self-select into different corporate governance regimes (Barzuza, 2012). While larger firms with high institutional shareholding favor market-oriented laws that give relatively strong protection to shareholders, a segment of small firms have stronger preferences for laws that cater to managerial interests.

To be sure, several factors make the market for corporate laws relatively static and reduce the likelihood of reincorporations and market share shifts. In particular, Delaware derives much of its market power from unobservable benefits, presumably the quality of its courts and network benefits, which we include in our model as time-invariant fixed effects. Thus, we show in counterfactuals that states cannot compete with Delaware by copying its statutory code, as many skeptics of competition predict. In fact, we even predict that Nevada would lose market share if it adopted Delaware's shareholder-friendly laws. Moreover, we find that firm incorporation decisions are subject to significant inertia, and firms have a strong tendency to incorporate in the state where they are located, presumably to benefit from

local influence. However, our results indicate that there is significant competitive pressure on Delaware to provide adequate protection to shareholders.

Our study is related to a vast literature in law and economics on regulatory competition for corporate charters.[3] An influential strand of this literature argues that the substance of corporate law matters relatively little for incorporation decisions. Firms may prefer to incorporate in the same state as other firms to benefit from network externalities, learning benefits (Klausner, 1995; Kahan & Klausner, 1997; Kamar, 1998; Kahan & Kamar, 2002) and familiarity of the law (Broughman et al., 2014).[4] On this view, demand for corporate laws is inelastic, and Delaware is bound to maintain its position irrespective of the substance of its laws or the laws of other states.

However, there are good reasons to believe that demand for corporate law is not as inelastic as some argue. There is evidence that Delaware's legislature has been particularly responsive in adapting its corporate laws to business needs (Romano, 1985). Additionally, there is historical evidence that Delaware attracted incorporations by liberalizing its director liability statute in 1967 and 1986 (Moodie, 2004). Recently, Nevada has acquired a small but significant market share of incorporations following changes to its laws in 2001 that exempted managers from liability for breach of fiduciary duties. (Barzuza, 2012; Barzuza & Smith, 2014). The segmentation of the market into Delaware's market-oriented law and Nevada's protectionist regime suggests that firms do respond to legal changes.

Moreover, accounts of inertia in market shares ignore another source of inertia, which is inertia in corporate decision-making. Such inertia may lead firms to respond slowly to legal changes. Thus, due to inertia, firms may fail to express their preferences for particular legal rules. In making incorporation decisions, firms need to bear the costs of (a) seeking

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[3]The literature as well as this article focuses on public corporations; for analysis of the incorporation choices of private firms, see Damman & Schündeln (2009).

[4] Network externalities include interpretative certainty arising from the likelihood that legal rules will be litigated and clarified in the future, the accumulation of business practice, and the availability of legal advice. Learning benefits emanate from the large body of legal precedents that increase the predictability of the law. Network externalities and learning benefits further make law firms, investors and managers more familiar with Delaware law.

legal advice, (b) evaluating changing economic conditions (e.g., whether a takeover is likely or not), and (c) assessing how different laws would affect the firm (for example, by enabling managers to use certain anti-takeover tactics).[5] Firms are unlikely to bear these costs unless there is an alternative law that is particularly attractive to the firm. By incorporating such inertia into our model, we are able to uncover firms' implicit preferences for corporate law, and show that demand for corporate law is elastic.

A second influential body of literature argues that firms prefer to incorporate in states that protect managers' interests at the expense of shareholders. In particular, Bebchuk & Cohen (2003) find that firms are more likely to incorporate in their home state (and less likely to incorporate in Delaware) if that state adopts anti-takeover statutes.

It is questionable however whether this study succeeds in evaluating the direction of competition. After all, most firms choose to incorporate in Delaware, which is less protective of managers than other states. As discussed below, while Delaware courts permit firms to use anti-takeover devices, Delaware is generally regarded as takeover-friendly compared to other states that have adopted many anti-takeover laws and apply a lenient standard of review to anti-takeover devices (Romano, 2006; Barzuza, 2009).More specifically, if anti-takeover statutes attracted more firm incorporations, then states that adopted such statutes would increase their market share of incorporations, or at least prevent local firms from reincorporating in Delaware. However, as we show below, states that adopted anti-takeover statutes actually experienced a decline in market shares.[6] Moreover, a limited model of decision-making in which firms either stay in their headquarter states or move to Delaware may fail to identify the preferences of the average firm that chooses to incorporate in Delaware. Accordingly, in order to estimate the direction and intensity of firms' preferences, our study

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[5]This type of inertia is also consistent with behavioral preferences towards the status quo, anchoring effects and herd behavior that militate towards inertia (see Kahan & Klausner, 1997).

[6]The problem appears to be that Bebchuk & Cohen (2003) do not include state fixed effects in their logit regressions. Therefore, their study fails to account for unobservable state factors and the impact of legal changes on firms' decision-making. In replicating their results with state fixed effects, the coefficient on anti-takeover statutes is negative and statistically significant (see section 5.3 of the Online Appendix).

incorporates the full menu of options available to different firms across time.

Furthermore, unlike most studies that focus only on anti-takeover statutes, this study takes into account laws that protect managers from liability. States vary in the level of liability protection they afford to directors and officers. Although Delaware was one of the first states to enact a provision that allowed firms to exempt their directors from liability for the duty of care (Romano, 1985; Moodie, 2004), other states have taken a more protectionist approach by permitting exemptions from liability for the duty of loyalty. As stated above, there is evidence that states, such as Delaware and Nevada, have attracted incorporations by expanding the exemptions available to managers for violations of fiduciary duties.[7] Accordingly, we construct a new index of liability protection that measures the extent to which firms are allowed to exempt directors and officers from liability and indemnify them for such liability. In this respect, we are able to test the hypothesis that states, especially Nevada, can increase their market shares by extending favorable protections to managers.

Our study goes further than existing studies in other important respects. Most existing studies do not take into account how heterogeneity of firm characteristics, whether firm size or ownership structure, affects firms' preferences for different legal regimes. Barzuza & Smith (2014) show descriptive evidence that Nevada firms tend to be relatively small with low institutional shareholdings, and that Delaware's firms tend to be larger and have significant institutional ownership. Accordingly, it seems that large firms generally prefer shareholder-friendly laws, while smaller firms prefer laws that protect managers. Moreover, the preferences for or against protectionism may increase or decrease depending on the takeover environment. The takeover environment may also affect preferences for liability protections. There is research that shows that the risk of corporate litigation is larger when takeovers take place (Romano, 1990; Krishnan et al., 2012; Cain & Davidoff, 2014), and managers often seek insurance policies to address this risk (Fleischer & Sussman, 2015).

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[7]In addition, many proxy statements of firms that reincorporate in another state expressly say that the extent to which the new state's law affords adequate protection to managers is one reason for the reincorporation (Heron & Lewellen, 1998; Eldar, 2017).

Our study estimates how firms' preferences for different legal regimes interact with the level of takeover activity.

Although this is not our primary endeavor, our article also contributes to a wide literature that shows that institutional shareholders have an impact on corporate governance and mitigating agency costs. For example, there is evidence that institutions are instrumental in passing shareholder proposals (Gillian & Starks, 2000), and that they exercise power over management behind the scenes through the threat of exit (McCahery et al., 2015). There is also recent anecdotal evidence that activist investors require firms to reincorporate in Delaware as part of the pressure they place on boards to improve corporate governance (Bloomberg, 2017; Chiu, 2017). Our results with respect to the preferences of firms with high institutional shareholding are robust to specifications that include instrumental variables; specifically, following Aghion et al. (2013), we use inclusion in the S&P index as an instrument for institutional shareholding. This suggests that institutional shareholding has a causal effect on the choice of corporate governance laws.

Finally, from a policy perspective, our findings are critical for assessing the desirability of regulatory competition. In particular, they cast doubt on the notion that Delaware's dominance is guaranteed due to the lack of any meaningful competition, or that regulatory competition creates pressure on Delaware to cater to the needs of managers at the expense of shareholders. Rather, they suggest that the outcomes of competition are primarily shaped by shareholders' interests (Romano, 2017). Although we do not examine in this article whether firms' choices enhance shareholder value, our findings fit well with evidence that Delaware incorporation is associated with positive abnormal returns (Romano, 1985; Heron & Lewellen, 1998; Bhagat & Romano, 2002) and higher Tobin's Q (Daines, 2001, Eldar, 2017).[8] Moreover, Eldar (2017) shows that even Nevada incorporations may increase shareholder value for the type of firms that self-select into Nevada, that is, small firms with low institutional shareholding. Therefore, there is little evidence that regulatory competition

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[8]While the association with Tobin's Q has been contested by other studies (Subramanian, 2004; Cremers & Sepe, 2014), it holds true in the sample that we examine in this article (Eldar, 2017).

harms shareholder value.

This article proceeds as follows. Section 2 discusses the data we use for this research. Section 3 lays out our choice model, compares it to other models of inertia, and explains our identification strategy. Section 4 discusses our main results. Section 5 evaluates different counterfactuals, in particular, the extent to which Delaware would lose market share if it adopted protectionist laws. Section 6 validates our results by showing in-sample and out-of-sample predictions. Section 7 carries out several robustness tests. Section 8 discusses the implications for the policy debates surrounding corporate law.

2 Data

2.1 State of Incorporation and Firm Characteristics

To identify firms' responses to legal changes in a panel set-up, we need to obtain accurate data on incorporations and reincorporations for every firm-year observation. As described in section 1 of the Online Appendix, we construct a novel data set of firm incorporations by parsing the states of incorporation from over two million public disclosure documents available on SEC servers from 1994 to 2013. To our knowledge, this is the first database that correctly identifies the state of incorporation over time for largely all public firms active in the period of interest. We match the incorporation data to accounting data from Compustat, and data on institutional shareholding and managerial ownership from Thomson Reuters.[9]

The database has 89,926 firm-year observations from 11,222 firms in the years 1994-2013. Because of the initial condition problem associated with using the first year in our inertia model, we use data from 1995. Similar to Daines (2001) and Subramanian (2004), we exclude all utility and financial firms because the corporate governance of such firms differs as a result of significant federal regulation.

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[9]Thomson Reuters data on institutional shareholdings is sourced from 13F filings. Thomson Reuters data on managerial ownership is sourced from Forms 3, 4, and 5 filings, using the same method as Panousi & Papanikolaou (2012).

Trends in the market shares of key states are illustrated in Figures 1 and 2. Delaware's share is about 64.15% as of 2013, as compared with 50.57% in 1995. Delaware's market share of firms whose headquarters are located in a state which is not their state of incorporation ("out-of-state incorporations") is even larger: 81.28% as of 2013, as compared with 82.85% in 1995. The most noticeable trend over time is the increase in Nevada's market share of all incorporations from 2.29% in 1995 to 10.43% in 2013, and of out-of-state incorporations from 2.83% to 11.61%.

While Delaware and Nevada are the most popular states of incorporation, a large number of corporations incorporate in the state of their headquarters (28.84% of firm-year observations). We observe 602 reincorporations, with 588 firms reincorporating at least once. 399 of these reincorporations are into Delaware directly, and 79 are to Nevada. Finally, we drop firms with fewer than three firm-year observations. The final sample includes 81,993 firm-year observations and 8,769 firms.

Table 1 compares the characteristics of Delaware and Nevada firms. Firms incorporated in Delaware are similar to the average firm in the sample in terms of size ($2.04 billion in assets as compared to $1.95 billion for the average firm) and institutional shareholding (39.26% as compared to 34.98% for the average firm). Nevada firms are significantly smaller with an average of $360.04 million in assets and relatively low average institutional ownership of 10.16%. Nevada firms also have a higher percentage of managerial ownership (approximately 6%) as compared to Delaware (approximately 4.27%).[10] As depicted in Figures 3-5, the increase in Nevada's market share is mostly due to small firms with low institutional shareholding and high insider ownership.

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[10]Our figures of managerial ownership are generally consistent with the statistics depicted by Barzuza & Smith (2014). However, we note that the data from Thomson Reuters Forms 3,4 and 5, does not appear to be accurate and can only be used as a proxy.

2.2 Laws' Characteristics and the Takeover Environment

In this section we introduce the indices for states' legal characteristics, focusing on anti-takeover laws and managerial liability protections. We discuss the construction of these indices in greater detail in section 2 of the Online Appendix. We emphasize that it is not necessary for the main claims in our article to show that states' corporate laws are consequential (for example, that anti-takeover statutes actually decrease the likelihood of takeovers). In section 3 of the Online Appendix we show some evidence that corporate laws are consequential. However, for our purposes, the critical issue is whether firms view these laws as consequential and take them into account in making incorporation decisions (see Bebchuk & Cohen, 2003).

2.2.1 Anti-takeover laws

Anti-takeover laws are laws that make takeovers difficult for bidders. In our main specification, we rely on the anti-takeover index developed by Bebchuk & Cohen (2003) that counts the number of anti-takeover statutes in each state. This index has been used in most studies of the demand for corporate law (e.g., Subramanian, 2002; Kahan, 2006; Broughman et al., 2014). Each state gets a score from 0 to 5 if it has one or more of the following statutes: constituency provisions, business combination statutes, control share statutes, fair price statutes, and poison pill validation laws. The definition of each of these laws can be found in Table A3 of the Online Appendix. We document the *ATS* index score for each state year in our database, using the year in which the statutes were passed.

The *ATS* index has been criticized on the basis that most of the anti-takeover statutes are inconsequential in delaying or preventing takeovers. The reason is that boards are always in a position to adopt a poison pill, which is widely regarded as the most effective anti-takeover device, and once a company has a poison pill in place, other anti-takeover devices become superfluous (Coates, 2000; Kahan, 2006, Catan & Kahan, 2016). Accordingly, as an

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alternative specification, we use a dummy for poison pill validation statutes. The essence of these statutes is that they protect standard poison pills from judicial review. Under Delaware law, poison pills are generally permitted, but they can be challenged in courts if they do not satisfy certain legal tests under the *Unocal* and *Revlon* decisions. Briefly stated, under *Unocal*, managers must be able to show that there is a threat to their firm's policy and that the defensive measure in question is proportional to the threat posed. Under the *Revlon* decision, if a sale or break-up of the company is inevitable, the board is obligated to pick the highest bid for shareholders. This level of scrutiny does not generally apply when a state has a poison pill statute (Barzuza, 2009).

We also add variables that account for extreme forms of anti-takeover protection. First, we use a dummy, *Dead Hand*, for states that have statutes (i.e., Maryland and Virginia) or case law (i.e., Pennsylvania and Georgia) that validate dead hand pills. Dead hand pills are extreme forms of pills which cannot be removed by conducting a proxy fight to replace the board with a new board that will redeem the pill. We also use a dummy, *Extreme*, which is identical to *Dead Hand*, except that it is set to one for states that have laws that impose staggered boards,[11] or in the case of one state (Maryland) allow their adoption even if contrary to the charter. This arguably represents an extreme form of takeover protection because when a firm has a staggered board, replacing the board can take several years and therefore a bid is more likely to fail (Cohen & Wang, 2013).

2.2.2 Director and Officer Protection

We construct a new index that measures the extent to which state laws protect directors and officers from liability. Managers can be protected in three main ways: exemption from liability, indemnification for liability out of the company's funds, and insurance. Our index focuses on exemption and indemnification because the laws of all states allow firms to insure their directors and officers to largely the same extent. States' laws relating to exemption

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[11]Until recently, only Massachusetts had such a statutory provision. More recently Indiana enacted such a law in 2009, Oklahoma in 2010 and Iowa in 2011.

and indemnification differ substantially across states. Because the laws of many states incorporate different standards of liability protection for directors and officers, we construct separate indices for directors (*LP (DIR)*) and for officers (*LP (OFF)*), as well as a combined index, which simply aggregates the two (*LP*).

With respect to exemption, the statutes of many states allow firms to adopt a charter provision that exempts directors and/or officers from liability for breaching their duty of care. Duty of care is associated with a gross negligence standard, but is generally protected by the business judgment rule, according to which, courts will not second-guess the business judgment of corporate managers. Under section 102(b)(7) of Delaware General Corporation Law, Delaware firms may exempt directors, but not officers, from the duty of care. Other states, such as Maryland, also allow firms to exempt directors and/or officers from liability for the duty of loyalty, as long as there has been no willful or intentional misconduct. The duty of loyalty is broadly defined as the duty to act in good faith to advance the best interests of the corporation (Strine et al., 2010). Accordingly, where states permit firms to exempt managers from liability without requiring good faith, we classify those states as allowing exemption from the duty of loyalty.

Finally, a few states also go further by exempting managers from liability for breaching any fiduciary duty by default, rather than allowing firms to exempt managers through a menu option (which is subject to shareholder approval). A default exemption is viewed as stronger protection than a menu option because it is rare for firms to opt out of default provisions, especially those that are favorable to managers (see Ayres, 1992; Romano, 1993; Subramanian, 2002; Listokin, 2009). States' legislatures may also use default rules as a signal to firms and courts about the appropriate level of culpability managers ought to face. For example, prior to 2001, Nevada allowed firms to exempt managers from the duty of loyalty through a menu option, but in 2001, Nevada law was changed such that managers became exempt from fiduciary duties by default. This change arguably accounts for the shift of firms into Nevada (Barzuza, 2012).

In constructing the index, we rate each state's exemption provisions as follows: We give 1 point if exemption from the duty of care is permitted; 2 points if exemption from the duties of care and loyalty are permitted; and 3 points if managers are exempted from fiduciary duties by default. We carry out a similar process with respect to permissible indemnification, which typically relates to (a) third party lawsuits, and (b) corporate expenses in derivative suits. We give 2 point if indemnification for violating the duties of care and loyalty are permitted, and 1 point if only indemnification for breaching the duty of care is permitted.[12] Virtually all states' indemnification provisions are embedded in menu options rather than default laws; however, under some states' laws, the board has sole discretion to indemnify managers (including the directors), whereas other states require shareholder approval. We treat the former as equivalent to default laws because they enable managers to protect themselves; thus, when indemnification for liability for breaching both the duty of loyalty and care are permitted without obtaining shareholder approval, we allocate 3 points.

In building each index, *LP (DIR)* and *LP (OFF)*, we generally aggregate the exemption and indemnification scores, such that the maximum score for each of *LP (DIR)* and *LP (OFF)* is 6, and 12 for *LP*. However, when the exemption score is higher than the indemnification score, we let the indemnification score be equal to the exemption score; the rationale is that if the managers are exempted from liability, then indemnification becomes irrelevant. As discussed below, our results are overall robust to different weighting of the exemption and indemnification scores.

2.2.3 Summary

Thirteen states have enacted at least one anti-takeover statute between 1995-2013. One fact that emerges from the *ATS* index is that Delaware has only one anti-takeover statute as compared to the state average of 2.94 across time, whereas Nevada has five such provisions

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[12]We create two separate scores for indemnification for (a) third party lawsuits and (b) corporate expenses in derivative suits, and divide the total score by two, such that the maximum indemnification score is three.

(see Table 2). Thus, according to the *ATS* index, Delaware has a relatively pro-takeover regime, whereas Nevada is relatively protectionist. We emphasize that the enactment of poison pill statutes has been the most common legislative change concerning anti-takeover devices between 1995-2013. By 1995, 25 states, including Nevada, had enacted a poison pill statute, and by 2013, 35 had such a statute.

With respect to liability protections, Delaware and Nevada again stand out as two polar opposite regimes (see Table 2). Whereas Delaware is one of the least protectionist states, Nevada is ranked as the most protectionist. Delaware's *LP (DIR)* score is 2 as compared to 6 for Nevada (since 2001), and an average score for all states across time of 2.91. The scores for *LP (OFF)* are more divergent and highlight Nevada's protectionist bent. Delaware's 2013 score is 0.5, Nevada is the only state with a score of 6 (since 2001) and the average state score across time is 1.45. Between 1995-2013, 11 and 13 states have increased the protection offered to directors and officers respectively.

Finally, we emphasize that there is positive correlation among the *ATS*, *LP (DIR)* and *LP (OFF)* indices (see Table 3). States seem to commit to packages of laws that are relatively takeover-friendly, or to protectionist laws that appeal to managers. We do not observe for example states that offer maximal protection on the *LP (DIR)* or *LP (OFF)* index and low protection on the *ATS* index.[13] There are, however, states that offer minimal protection on the *LP (OFF)* index but have a high *LP (DIR)* and *ATS* scores.[14] This probably reflects the notion that anti-takeover statutes and liability protection for directors are viewed as more acceptable than liability protection for officers who are engaged in the day-to-day operation of the firm.

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[13]All states that rank 6 on *LP (DIR)*, namely Indiana, Nevada, Ohio and Wisconsin, also have five anti-takeover statutes.

[14]Ohio and Indiana for example scores 5 and 6 on the *ATS* and *LP (DIR)* indices but only 0.5 and 1, respectively, on the *LP (OFF)* index.

2.2.4 Interaction with Takeover Environment

In order to take into account changing economic conditions, we interact legal character-istics with variables that measure takeover activity in the economy. We measure the level of takeovers using data from SDC. We construct three measures: (a) the log of the number of takeovers in the industry in the previous year, (b) the log of the dollar volume of takeovers in the industry in the previous year (adjusted by the CPI to 2004 dollars), and (c) a dummy that equals 1 if the four week average premium of takeovers in the industry in the previous year is higher than the industry median. We use the industry median premium dummy for the main specification because it enables us to assess firms' preferences in response to takeovers that increase shareholder value as opposed to how managers react to takeover waves which may not be conducive to shareholder wealth. Table 4 shows summary statistics with respect to the variables that measure takeover activity between 1995-2013.

3 Decision-Making under Rational Inertia

3.1 The Model

Before incorporating inertia into the model, we start with a standard multinomial choice model in which firm i, in each year t, can incorporate in any state j. We assume that the indirect utility of incorporation is :

$$u_{i,j,t} = \sum_k x_{jt}^k (\beta_k + \sum_r w_{it}^r \gamma_r^k) + \xi_j + \varepsilon_{ijt}, \tag{1}$$

where x_{jt}^k is the k'th characteristics of state j at time t (e.g. the level of *ATS* or *LP (DIR)* of Delaware in 2010); w_{it}^r is the r'th characteristic of firm i (e.g., size) at time t; ξ_j is a state-fixed effect, and ε_{ijt} is a random utility shock known to the firm but not to the researcher. We adopt the assumption that ε_{ijt} is iid across firms, states and years, and is distributed according to a type I extreme value distribution. The probability that firm i chooses to

incorporate in state j at time t is then:

$$
\begin{aligned}
P_{ijt} &= \Pr\left\{u_{ijt} \geq u_{ikt}, \ \forall k \neq j\right\}, \\
&= \frac{e^{\delta_{ijt}}}{\sum_{h \in \mathcal{J}} e^{\delta_{iht}}},
\end{aligned}
\tag{2}
$$

where $\mathcal{J}$ is the set of all jurisdictions a firm can choose, and

$$
\delta_{ijt} = \sum_k x_{jt}^k \left(\beta_k + \sum_r w_{it}^r \gamma_r^k\right) + \xi_j
$$

is the nonrandom part of the utility of firm i from incorporating in state j at time t.

At this point, we introduce inertia to the model. In a model with inertia, firm i makes a choice at time t, with probability π_{it}. We assume that $\pi_{it} = 1$ at time t_i^1, the first period in which the firm is present in the data. Accordingly, the probability of choosing state j in the first period is P_{ij1}. In subsequent periods (i.e., $t > t_i^1$), we need to adjust this probability by taking inertia into account as follows:

$$
\tilde{P}_{ijt} =
\begin{cases}
\pi_{it} P_{ijt} & \text{if } j \neq j_{(i,t-1)}^* \ \& \ t > t_i^1 \\
(1 - \pi_{it}) + \pi_{it} P_{ijt} & \text{if } j = j_{(i,t-1)}^* \ \& \ t > t_i^1
\end{cases}
\tag{3}
$$

where $j_{(i,t-1)}^*$ denotes the state where the firm was incorporated in the previous period.

This modeling choice reflects the fact that the first period in which a firm appears in our sample typically coincides with the time a firm becomes public. At that time, the firm has to approach shareholders and consult with law firms about the firm's legal documents, and therefore the managers will consider the legal structure of the firm and will be presented with various options by their lawyers. In these circumstances, the costs of attention or learning are likely to be low. There is evidence that firms often reincorporate at the time of the initial public offering (Romano, 1985; Daines, 2002). By contrast, reincorporations after the firm becomes public are much less frequent, and occur only if the firm makes a choice and the

choice is different than its state of incorporation in the previous year.

We model the probability of making a choice, π_{it}, as arising from optimizing behavior. We assume that firms (through their legal advisers) know the laws and their own characteristics, but they do not know their own idiosyncratic shocks ($\varepsilon_{i \cdot t}$). The firm chooses to learn this shock, and potentially reincorporate, if the expected benefit from choosing exceeds some costs c_{it}, known to the firm but unobservable to the researcher. The expected benefit from choosing is the expected utility of the best alternative law, given the laws of every state and firm characteristics in time t. Accordingly, π_{it} takes the form:

$$\pi_{it} = \Pr\left\{ E\left[\max_j u_{ijt}|\delta_{ijt}\right] - E\left[u_{ij^*(i,t-1)t}|\delta_{ij^*(i,t-1)t}\right] \geq c_{it} \right\}, \tag{4}$$

and, as shown by McFadden (1981), our distributional assumptions imply that:

$$E\left[\max_j u_{ijt}|\delta_{ijt}\right] - E\left[u_{ij^*(i,t-1)t}|\delta_{ij^*(i,t-1)t}\right] = \log\left(\sum_{h \in \mathcal{J}} e^{\delta_{iht}}\right) - \delta_{ij^*(i,t-1)t}.$$

In this set-up, a firm is more likely to consider its state of incorporation if there is an alternative law that would improve its utility by a sufficient amount. The firm (represented by its managers and legal advisers) knows the law and its own characteristics. However, without exerting some effort, the firm does not know more idiosyncratic factors (represented by the random shock, $\varepsilon_{i \cdot t}$) that could make a different legal system more attractive. Such factors may include the likelihood that the firm will be subject to a takeover bid, legal hurdles the current law of incorporation may pose for the transaction, and whether a different law could facilitate the transaction (or future transactions). Similarly, the firm may need to invest time and money to understand which laws might help its managers to focus on long-term growth and avoid the need for dealing with disruptive bids and frivolous law suits.

We assume that c_{it} is iid according to a logistic distribution with parameters (μ, σ), so that we can use equations 3 and 4 to form the likelihood function of the data, and

estimate parameters by maximum likelihood. In additional specifications, we further link c_{it} to the individual firm characteristics, such as size and institutional ownership. However, as discussed in section 5.2 of the Online Appendix, the results are substantially the same as the results in the main specification.

3.2 Identification

The major parameters are the coefficients on *ATS, LP (DIR)* and *LP (OFF)*. These coefficients are identified from the joint distribution of state characteristics, firm characteristics and firm choices. There is substantial cross-sectional variation in legal rules in our sample period, and to a lesser extent, also time-series variation. As discussed above, 13 states have enacted anti-takeover statutes. Likewise, 11 and 13 states have increased the protection offered to directors and officers respectively. Even if legal rules do not experience very frequent changes over time, firm characteristics and takeover activity provide us with significant time-series variation. The average firm size measured by asset value increased significantly over the years, as did ownership of institutional shareholders.

We further recognize, similar to Kahan (2006), that unobservable state-level characteristics affect the incorporation decision. We add state fixed effects to control for factors that we cannot observe in the data. These include network benefits, familiarity with the law and quality of the courts. The fixed effects also absorb the impact of franchise taxes, i.e., the fees that states charge for incorporation. We do not include franchise taxes as a variable mainly because fees show virtually no variation over time, and secondarily because it is impossible to determine each firm's fees across time accurately.

Similar to Handel (2013), we identify firm preferences primarily from periods in which we observe firms making initial incorporation decisions or changing their state of incorporation. Note that firms need not reincorporate immediately in response to legal changes but may do so several years afterwards due to inertia in decision-making. For example, a firm might dislike a protectionist law, but not enough to shift to Delaware. If its characteristics change

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in the next period (e.g., the percent of institutional ownership increases) it may decide that its dislike for protectionist laws is sufficient to bear the costs of reincorporating. Parameters of the distribution of the cost of choosing are identified mainly by the observed switching patterns.

As in Sallee (2014) and Ho et al. (2017), inertial behavior in our model arises from the probability of not choosing. This probability is related to the presence of better alternatives. When states change the law or firm characteristics change, the firm's utility from alternative laws changes as well. As discussed above, the intuition is that when a favorable law is introduced the firm is likely to be informed of its presence by its counsel or by lawyers that seek to attract firms to the state, but it needs to pay a cost to learn the quality of the fit between the law and the firm's business needs. Following Heckman (1981), inertial behavior is typically modeled as arising from structural state dependence (whereby past choices directly influence preferences) or spurious state dependence (in which the persistence in behavior is due to persistence in unobservables).[15] Such approaches, however, are not well suited for reincorporation decisions.

The standard way to account for structural state dependence is to introduce switching costs. A flexible non-parametric model with switching costs cannot be identified given the limited variation in the data, particularly the small number of reincorporations (less than 5% of firm-year observations). A simpler model where switching costs are constant, irrespective of the origin and destination states, characteristics of the laws, and firm characteristics, is overly restrictive. Moreover, as shown in section 4 of the Online Appendix, such a model would fit our data poorly, and overestimate the costs of switching, which virtually all legal commentators consider to be relatively low (e.g., Black, 1990).

Spurious state dependence could in theory be modeled by including random effects that account for time-invariant idiosyncratic preferences for states of incorporation. In such a model, firms tend to select a state for which they have a high persistent shock at the time

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[15]For examples, see Shum (2004) or Dubé et al. (2010).

of first incorporation. Even if they reincorporate elsewhere at a later time (driven by either a high random shock, or a change in characteristics), the persistence of state-specific shocks implies that they are likely to go back to their original choice. However, firms that reincorporate into another state rarely go back to their former state of incorporation in our data. Rather, they virtually always stay in the new state of incorporation throughout the life of the firm. Accordingly, random effect models do not adequately capture the inertia in this particular set-up.

4   Results

Our main results are depicted in Table 5. First, we find several factors that make the market for corporate laws relatively static and reduce the likelihood of reincorporations and market shifts. A salient factor in firms' incorporation decisions is indeed the fixed effect of each state. Most conspicuously, Delaware's fixed effect, which amounts to 7-8 units of utility (as defined in equation 1) under different specifications, is substantially larger than the fixed effects of other states. This finding is consistent with the notion that unobservable elements of Delaware law, such as the quality of its judiciary, its responsiveness to business needs, and network benefits, are all primary drivers for incorporating in Delaware. Interestingly, Nevada's fixed effect is also fairly substantial and amounts to 4-5. While Nevada is not known for having a high quality judicial system, Nevada has long tried to attract market share from Delaware (Cary, 1974), and its legislature has been accordingly responsive to business needs, especially the interests of firms' management (Barzuza, 2012). In contrast, states such as California and New York have a low fixed effect, confirming the general view that their legal systems are not adequate for addressing the needs of modern firms.

Second, consistent with past studies, firms also manifest a marked preference for incorporating in the state where they are located. The coefficient on *Home Bias,* a dummy equal to 1 if a firm is incorporated in the state in which it is headquartered, is about 4.44.

Third, as expected, we find that inertia plays a significant role in firms' incorporation

decisions. Using the parameter estimates of the distribution of the costs of choosing, we can compute the average probability of making an incorporation choice. That average probability is about 1.2% across specifications, which translates into roughly 20% probability of making one incorporation decision (and potentially, reincorporation) over 20 years.

Our main findings however relate to legal characteristics. Although unobservable fixed effects, home-bias and inertia, significantly affect firms' incorporation decisions, the effects of states' laws are not trivial. We consider counterfactuals in section 5 in greater detail to explain the potential market shifts that legal changes could cause, but for present purposes we focus on the key findings.

First, firms generally dislike anti-takeover statutes. This dislike is strong across different types of firms, and includes large, medium and small firms. This finding casts doubt on the hypothesis that anti-takeover laws enable states to increase their market share of firm incorporations. In addition, as shown in column (2) of Table 5, the dislike for anti-takeover statutes is stronger when the average industry takeover premium is above the median. We also examine the preferences of firms with high managerial ownership. As shown in column (3), firms with managerial ownership of at least 15 percent of the stocks dislike anti-takeover statutes less. This suggests that managers generally prefer laws that benefit them. However, this result does not hold when the threshold for managerial ownership is 25 percent.[16]

Second, unlike anti-takeover statutes, firms seem to prefer some level of protection for their directors and officers. Large firms with high institutional shareholdings actually prefer a relatively high level of director protection (though many of the coefficients on *LP (DIR)* and size interactions with *LP (DIR)* are not statistically significant). However, they dislike liability protection for officers, where the coefficients are about -0.37. In contrast, small firms with low institutional shareholding like high protection for their officers (the coefficients are

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[16]The reason might be that managers with very high managerial ownership do not care about anti-takeover statutes since they have control over whether the firm will be acquired or not irrespective of the legal regime. On the other hand, it is important to mention again that data on managerial ownership is noisy, and therefore there are relatively few firms that have more than 25 percent managerial ownership based on forms 3,4 and 5.

about 0.32). Directors in large firms may be particularly concerned about potential lawsuits and liabilities. This result is consistent with studies that show that large firms are more likely to face litigation (Brochet & Srinivasan, 2014). Preference for *LP (DIR)* also rises when takeover premiums are high, although the coefficient is not statistically significant. On the other hand, small firms where the directors typically also serve as officers are especially interested in liability protection for officers. Thus, the *LP (OFF)* index seems to be the primary driver for incorporations in Nevada rather than the *LP (DIR)* index. We do not find that managerial ownership significantly affects preferences for liability protections. The coefficient on the interaction of *LP (DIR)* with managerial ownership is slightly negative and insignificant. The coefficient on *LP (OFF)* and officers' ownership is positive but not statistically significant.

In section 5.1 and Table A9 of the Online Appendix, we also report results using the combined *LP* index. The results are largely the same, showing that most firms like liability protection, and that this preference is substantially stronger for small firms with low institutional shareholding.

We note that we do not find evidence that home bias is driven primarily by large firms that exert influence on local regulators. In fact, the home bias for larger firms is smaller than that of smaller firms. One explanation may be that large firms tend to hire national law firms, and such firms presumably advise them to incorporate in Delaware, whereas small firms tend to consult local law firms. While some large firms no doubt exert influence on local legislatures, the average large firm is less inclined to incorporate in its home state.

Finally, in unreported regressions we find that the coefficient on an interaction term between *Home Bias* and *ATS* is positive, but relatively small compared to the coefficient on *Home Bias.* Thus, consistent with Bebchuk & Cohen (2003), there is some evidence that anti-takeover statutes increase states' ability to retain firms in their jurisdictions, although the results suggest that this occurs only at a small scale.

5 Counterfactuals

In order to assess the elasticity of firms' preferences in corporate law, we need to evaluate the extent to which market shares of different states would change following changes to states' laws. We are particularly interested in several counterfactuals in which Delaware becomes more protectionist. In the first counterfactual, we examine the market shift that would occur if Delaware enacted four anti-takeover statutes in 2006 such that its ATS index score were five (see Figure 6). We use all other state and firm characteristics to estimate firm choices between 2007 and 2013, taking into account inertia in decision-making which could delay firm reincorporations. We take a conservative view by not changing Delaware's fixed effect, so we assume that Delaware continues to enjoy a significant advantage over other states irrespective of its laws.

The results show that despite inertia in decision-making, a sizable number of firms would shift away from Delaware. The predicted decline in Delaware's market share in the period 2006-2013 amounts to 11.08%, and the downward trend would continue if we were to iterate the simulation beyond our sample period.[17] Using back of the envelope calculations, the revenue loss to Delaware from franchise taxes in 2013 would be approximately between $35 million and $70 million.[18] Thus, although Delaware has substantial market power, if it adopted laws that signal to the market that it does not view takeovers favorably, it would lose significant market share. Despite Delaware's large fixed effect, many firms would return to their home states. California's market share for example would increase from 2.66% to 3.40%.

Second, we consider changes to market shares if Delaware replicated Nevada and not only enacted more anti-takeover statutes, but also increased the liability protection for both

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[17]Note that without inertia Delaware's market share in 2007 would decrease to less than 30%.

[18]The lower bound is based on the assumption that large firms in our sample pay the maximum franchise fee, i.e., $180,000, medium firms pay $130,000, and small firms pay $10,000. The upper bound is simply the product of the predicted decline in market shares (11.08%) and Delaware's revenue from franchise taxes in 2013 ($605.6 million).

directors and officers (see Figure 7). The results suggest that Delaware would not lose much market share. The reason is that Delaware could attract firms from Nevada due to its large fixed effect. However, if we focus only on relatively large firms with more than $100 million in assets that have more institutional shareholders, the results change dramatically. Such firms would flee from Delaware mainly because they dislike anti-takeover statutes and strong liability protections for officers.

Third, we note that as the coefficient on *LP (DIR)* in Table 5 is positive, our estimates suggest that Delaware could gain some market share by increasing the protection it offers to directors, but not to officers, and keep its anti-takeover regime intact. However, we do not think that this scenario is very likely. We emphasize that the coefficient on *LP (DIR)* is not statistically significant, and therefore there is uncertainty as to whether firms truly prefer higher protection for their directors. Moreover, as discussed in section 2, there is a positive correlation among our indices for protective or managerialist environments. The reason, we submit, is that states' commitments to shareholder-friendly or manager-friendly rules are not made in isolation with respect to specific laws, but rather as packages of laws that either tilt the balance of power in favor of shareholders or managers (particularly directors in the context of large firms). We therefore consider the case whereby Delaware increases its *ATS* to 5 and *LP (DIR)* to 6, while maintaining *LP (OFF)* at zero. The result is that Delaware would keep roughly the same market share, as the gains from increasing *LP (DIR)* are offset by the loss of increasing *ATS* (see Figure 8). Therefore, it seems that Delaware has limited incentives to shift to a protectionist regime.

Finally, we also consider whether Nevada or any other state could compete with Delaware by replicating Delaware's law (see Figure 9). Our results indeed confirm the view that other states cannot challenge Delaware by merely copying its statutory code (Bebchuk & Hamdani, 2002, Kahan & Kamar, 2002). In fact, as predicted by Barzuza (2012), if Nevada tried to replicate Delaware it would lose significant market share. Nevada attracts incorporations by differentiating itself from Delaware's pro-shareholder regime, but cannot compete with

Delaware for larger firms. Leaving Delaware's institutional dominance intact, it is only if Delaware retracted from its relatively pro-shareholder laws that other states could attract a significant share of large firms.

6 Validation

In this section, we validate the results by showing that the coefficient estimates provide reasonable predictions of states' market shares.

We use the rational inertia model to simulate firms' incorporation choices, and compute states' market shares of incorporations by aggregating individual firms' decisions. In Figure 10, we show the in-sample predictions of the market shares of Delaware and Nevada over the period of our data. While no model can predict market shares perfectly, our model does reasonably well. We use the model in column (2) of Table 5 for the validation exercises, but other specifications yield similar results. We focus on predicting changes in states' market shares of incorporations following changes to state laws, especially the recent rise of Nevada's market share. As Figure 10 shows, our model fits the rise of Nevada reasonably well. We further examine the shift in market shares in four states that enacted anti-takeover statutes, namely Texas, Missouri, Washington and Connecticut. We choose these states because among the states that have enacted anti-takeover statutes, especially poison pill validation statutes, they have the largest market share. The in-sample predictions are presented in Figure 11, and they appear to be relatively accurate.

In-sample validation is only partial evidence that our model can predict market shares. More importantly, the question is whether the model predicts market shares out-of-sample. In particular, we focus on the market share of Delaware and the increase in Nevada's market share in the 2000s. We estimate the model using the data up to and including 2008, and then predict market shares for 2009-2013 for the firms in our sample. Figure 12 compares the actual market shares of Delaware and Nevada and their predicted values between 2009 and 2013. We use the model in column (2) of Table 5 for the validation exercises, but again

other models yield similar results. As shown in Figure 12, the predicted values of the inertia model are reasonably close to the true market shares. For example, the predicted market share of Delaware in 2013 is 62.15% as compared to the actual market share of 62.84%, and the predicted market share of Nevada in 2013 is 8.42% as compared to the actual market share of 9.81%. Accordingly, our model also provides a reasonable prediction of market shares out-of-sample.

7   Robustness

In this section we discuss alternative specifications and present an instrumental variable strategy to address concerns relating to the endogeneity of institutional ownership. Additional robustness tests are reported and discussed in section 5 of the Online Appendix, including the following: (1) specifications with a combined LP index, (2) an alternative model of the probability of choice, and (3) specifications without state fixed effects.

7.1   Alternative Specifications

Our results are robust to alternative ways of measuring legal characteristics. First, given that most of the time variation in the ATS index derives from the adoption of poison pill statutes, we run the model with a *Pill Statute* dummy instead of using the ATS index. The results are available in Table 6. Interestingly, the coefficients on *Pill Statute* are negative and relatively very large. In particular, large and medium firms that have a high percentage of institutional shareholders dislike pill statutes substantially more than smaller firms (the coefficient is between -1.2 and -1.4). This dislike is larger when the industry takeover premium is larger than the median.

Moreover, in column (2), we add the dummy variable, *Dead Hand*, for states that either have a statute or case law that validates a dead hand poison pill. We consider this to be an interaction term because all the states where dead hand pills have been validated have pill

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statutes. This is consistent with the view that a poison pill statute makes it more likely that courts will uphold dead hand pills (Barzuza, 2009). The coefficient on this variable is largely zero, but it becomes negative when interacted with the takeover premium dummy. Finally, in column (3), we use the dummy variable, *Extreme*, instead of *Dead Hand* to also account for states that have a statute that requires firms to adopt staggered board. The results are again very similar. Note that the statistical insignificance of the coefficients on *Dead Hand* and *Extreme* are not surprising given the limited cross-sectional and time-series variation in the data with respect to these variables. Moreover, the coefficients on other variables are all similar to those in Table 5. We also conduct tests where we take into account the standards of review that each state has applied to the poison pill over time, following the analysis of Barzuza (2009). Our results are robust to this specification, but for simplicity we do not include them.

We further use other measures of takeover intensity instead of the average takeover premium in the industry. We use the log of the number of 100% completed takeovers in the industry in the previous year, and the log of the adjusted dollar amount of 100% completed takeovers in the industry in the previous year. The results are generally robust to these alternative measures too. In particular, firms, especially large ones, dislike anti-takeover statutes more when the number or volume of takeovers in the industry is higher.

Second, we use alternatives variables for measuring states' director and officer liability protections. The results are robust to the following specifications: (1) allocating 0.5 points instead of 1 point for default laws that exempt managers from liability for breaches of the duty of loyalty or allow firms to indemnify managers for such liability without shareholder approval; (2) using a weighted score for both *LP (DIR)* and *LP (OFF)*, where we give the exemption score 1.5 or 2 times more weight than the indemnification score, instead of assuming that the indemnification score is equal to the exemption score when the latter is larger (as in our main specification); (3) using a dummy variable to proxy for the degree of states' managerial liability protection, where the dummy equals 1 only when a state exempts

managers for breaches of the duty of loyalty by default and/or allows for indemnification in such circumstances without shareholder approval;[19] and (4) using a modified version of *LP (DIR)* and *LP (OFF)* that takes into account provisions that allow firms to indemnify directors and officers for settlement or liability amounts in derivative suits.[20] We do not report the results obtained using these modified variables, but our findings are unaffected.

7.2 Instrumental Variable for Institutional Investors

While it is possible that firm characteristics, primarily institutional shareholding, may be correlated with unobserved firm specific variables, this type of endogeneity is not likely to present a serious concern for our findings. Our findings that firms with high institutional shareholdings dislike protectionist laws support the bonding hypothesis, whether institutional owners cause firms to choose shareholder-friendly laws or choose to invest in firms incorporated in jurisdictions with such laws. More importantly, our counterfactuals relate to legal changes rather than changes in firm characteristics, and therefore endogeneity concerns do not materially affect the counterfactuals. Moreover, since we do not heavily rely on a causal interpretation of the correlation between firms' choices and institutional shareholding, this variable may be viewed as a proxy that accounts for unobserved market-orientation, such as a desire to be acquired or retaining a national law firm.

In any event, we show that our results are robust when using inclusion in the S&P index as an instrument for institutional shareholding (following Aghion et al., 2013). Inclusion in the S&P 500 index is plausibly exogenous because it does not depend on a firm's governance and performance, but rather on whether a firm is deemed representative of its industrial sector.

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[19]We employ two main alternative specifications: (a) a dummy that equals 1 only if a state exempts managers from the duty of loyalty by default; and (b) a dummy that equals 1 not only if there is such an exemption, but also when a state allows firms to indemnify managers for such liability without shareholder approval.

[20]The indemnification score is either (a) an average of the indemnification score for direct suits, corporate expenses in derivative suits and the settlement amounts in derivative suits, or (b) a weighted average whereby 50% of the score is based on the score in direct suits, 25% on corporate expenses in derivative suits and 25% with respect to the settlement amounts.

Moreover, inclusion in the S&P 500 is positively correlated with institutional ownership, as fund managers are more likely to invest in stocks that are part of the index. This correlation persists even when controlling for firm size.

We rely on a control function approach to implement the instrumental variable analysis (Imbens & Newey, 2009; Blundell & Powell, 2004). In the first stage, we regress the endogenous variable on exogenous firm characteristics and instruments. We assume that the error term in the first stage, ν_{jt}, and ε_{ijt}, i.e., the error terms in each firm's utility function (i.e., u_{ijt} in equation 1) are jointly independent of the exogenous variables and instruments, such that , ε_{ijt} is independent of institutional ownership conditional on ν_{it}. We estimate the first stage with OLS, and include the estimated residuals $\hat{\nu}_{it}$ in the specification of u_{ijt}. Following Petrin & Train (2010), we impose the parametric assumption that the distribution of ε_{ijt} conditional on the realizations of ν_{it} is iid type I extreme value, and then estimate the model with maximum likelihood estimation as in our main specification.

The results of the instrumental variable analysis in Table 7 suggest that the preferences of firms with high institutional shareholding for certain legal regimes are even stronger than those in our main specification. For example, firms with high institutional shareholding dislike anti-takeover statutes (column (1)). This dislike is even stronger when we use *Pill Statute* dummy instead of using the *ATS* index (column (2)); this is consistent with accounts that institutions tend to object to poison pill provisions in the charter (Gillan & Starks, 2000; Kahan & Rock, 2014). Similarly, as in the main specification, institutional shareholding is associated with higher *LP (DIR)* and lower *LP (OFF)*, but the magnitudes are larger. In fact, when using instruments for institutional shareholding, the size of the firm does not appear to be correlated at a statistically significant level with preferences for legal regimes, and institutional shareholding seems to be the critical factor. This suggests that institutional shareholding has a causal effect on the choice of corporate governance laws.

8   Discussion of Results

8.1   Is there Competition for Corporate Law?

The central finding of this study is that Delaware faces competitive pressure to adopt laws that are relatively more shareholder friendly than those of other states. If Delaware aggressively sought to favor managerial interests it would lose revenue and market share, especially among large firms. To be sure, our empirical strategy confirms many of the claims of influential writers on competition for corporate charters, including the ideas that (a) Delaware's power is derived from unobservable quality, network externalities and familiarity with the law; (b) firms exhibit strong home bias in incorporation decisions; (c) firms' incorporation decisions tend to be sticky due to inertia in decision-making; (d) it is impossible to compete with Delaware merely by copying its statutory code. However, if managerial favoritism were a main driving force in this market, we would find that firms prefer strong anti-takeover protections as well as laws that protect officers from liability, but nonetheless choose to incorporate in Delaware because of its strong fixed effect. In contrast, we find that states that have increased the level of their takeover protection lost market share over the time frame that we examined.

We emphasize that we do not argue that states actively and vigorously compete for incorporations. Thus, the insight by Kahan & Kamar (2002) that states' bureaucracies are not profit maximizing and face political obstacles in seeking to attract outside firms is consistent with our findings. Similarly, network externalities and investment in institutional infrastructure make it difficult to compete with Delaware (Bebchuk & Hamdani, 2002). In such circumstances, states might prefer to cater to the interests of the managers of local corporations by enacting laws that enable those managers to resist the influence of outside investors. Our results, however, indicate that the average effect of such policies is not to attract market share, but in fact to reduce it.

The emerging equilibrium that we observe is one of market differentiation (Barzuza, 2009; Gilson et al., 2013). Delaware offers market-oriented laws that are relatively favorable to shareholders, while the laws of most of other states cater primarily to local interests, such as those of employees and local merchants. Within this equilibrium, a third alternative has emerged for small firms that presumably have limited local influence, but seek a system that is responsive to the needs of small firms with high insider ownership and strong managers. The regulatory framework of corporate law in the United States may be viewed as a system of complementary laws that provide for the needs of different forms of business, and in particular large public firms that seek capital from widely dispersed shareholders and institutions.

Finally, we do not argue that Delaware pursues policies that are dismissive of managerial interests, nor that Delaware would increase its market share if it further curtailed the interests of firms' managers, for example by barring classified boards or poison pills. We only argue that in relative terms, Delaware has committed to a regime that is relatively more sensitive to the preferences of shareholders.

8.2 Shareholder Value

Whether competition for corporate governance laws is welfare enhancing depends on whether firms' choices are conducive to shareholder value. As shown by Daines (2001), Litvak (2013) and Barzuza & Smith (2014), incorporation in Delaware is correlated with higher Tobin's Q. While some have contested this finding (e.g., Subramanian, 2004), the results hold in the sample used in this study (Eldar, 2017). Moreover, largely all event studies have shown that incorporation in Delaware is associated with positive, albeit small, abnormal returns (Bhagat & Romano, 2002). Consistent with our findings, the main explanation for this is that Delaware incorporation facilitates takeover activity (Romano, 1985; Daines, 2001).

Nonetheless, there remains a possibility that Nevada's protectionist laws are value decreasing. However, most studies have shown that incorporation in Nevada is correlated with

higher Tobin's Q (Litvak, 2014; Eldar, 2017). Eldar (2017) shows that this correlation is limited to small firms with less than \$100 million in assets. But, since most Nevada corporations are small the result suggests that firms that choose to incorporate in Nevada tend to be those firms for whom Nevada incorporation is value enhancing. Eldar (2016) further conducts an event study of firm incorporation in Nevada between 1996-2013 and finds that such incorporations are associated with positive abnormal returns, although the effect is not usually statistically significant. One explanation for the positive effect of Nevada law is that it reduces the costs of corporate governance through takeovers and litigation for small firms with a high percentage of insider ownership (Kobayashi & Ribstein, 2012; Eldar, 2017).

Taken together, these findings suggest that the system of regulatory competition induces different types of firms to sort themselves into corporate governance systems that overall benefit their shareholders.

8.3   Policy Implications

The broader policy question is whether there is a need for federal regulation. This question echoes similar issues of harmonization versus competition in regulation that are present in other markets, such as financial services (White, 1996). Some scholars argue that takeovers should be federally regulated. Bebchuk & Ferrell (2001) advocate federal rules that would effectively prohibit the use of most defensive tactics utilized after a bid is made. Barzuza (2009) argues that federal regulation should impose a minimum standard for judicial review of poison pills and anti-takeover devices. To be sure, Delaware law may indeed be imperfect. For example, Delaware's adoption of a business combination statute in 1988 seems like a redundant policy (Romano, 1987). However, it is highly doubtful that the federal government would do better than Delaware.

The key problem with proposals for federal regulation is that they are based on a questionable empirical premise, which is that Delaware's pro-shareholder approach is due *exclusively* to fear of federal intervention and that firms as a whole tend to choose laws that favor man-

agerial interests. Our findings suggest that this premise is not founded in the data. Rather, Delaware faces pressure from the demand side to enact laws that facilitate takeovers relative to other states, even if imperfectly. In contrast, a federal regulator may be subject to the politics of other interest groups not well versed with business needs and pursue populist policies that do not necessarily benefit shareholders. Criticism of recent federal regulation, such as Sarbanes-Oxley and Dodd-Frank, are a case in point (Romano, 2005; Romano, 2014).

Finally, federal regulation could impose a one-size-fits-all approach to corporate governance on all firms. But the evidence suggests that there is scope for regulatory diversity. Even if laws that delay or prevent takeovers are on average value decreasing, firms may benefit from such laws in particular circumstances. Accordingly, there seems to be little reason to impose uniform laws through federal regulation.

9   Conclusion

We develop in this article a model of firm choice of corporate laws under rational inertia. We show that such a model can generate critical insights for the debate over the desirability of regulatory competition in the market for corporate laws. While elasticity in the demand for corporate laws is limited by unobservable quality, home bias, and inertia in decision-making, there is evidence that corporate law does matter and can generate market shifts in firm incorporation decisions. In particular, we find that Delaware faces competitive pressures to adopt corporate laws that are relatively shareholder-friendly. Consistent with the bonding hypothesis, our counterfactual analysis indicates that if Delaware enacted highly protectionist laws, large public firms would leave Delaware. While such a scenario is unlikely to transpire at present, it would be similar to events that led to the fall of New Jersey as the dominant state of incorporation for U.S. firms in the early twentieth century (Butler, 1985). The enactment of protectionist anti-trust laws by the New Jersey legislature triggered a mass migration of companies to Delaware, which copied New Jersey's corporate code and

created the infrastructure for serving modern business corporations. Similarly, we show that if Delaware enacted laws that harmed shareholders, other states have strong incentives to pick up the slack, especially small states that need new sources of revenues.[21] Thus, even if competition for corporate law is imperfect, it militates in favor of a corporate governance regime that is conducive to shareholder interests.

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[21]This observation is consistent with Baumol's theory that incumbents are disciplined by the threat of entry (Baumol, 1982; Romano, 2002).

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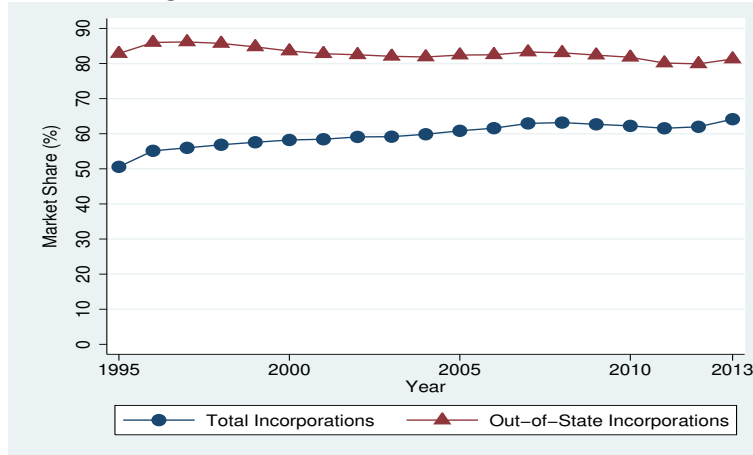
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Variable Definitions

| Variable	Definition
ATS	An index of anti-takeover statutes that counts the number of anti-takeover statutes for every state for every year at the year the statute was passed. Anti-takeover statutes are described in Table A3 of the Online Appendix. The index ranges from 0 to 5.
Dead Hand	A dummy equal to 1 if a state has a statute that validates dead-hand poison pills or has case law that holds such pills to be valid. For discussion, see section 2.2.1 and section 2.2 of the Online Appendix.
LP	A combined measure of LP (DIR) and LP (OFF) (described below), i.e., LP = LP (DIR) + LP (OFF). The measure ranges from 0 to 12.
LP (DIR)	A measure of each state's protection of directors from monetary liability based on liability exemption and indemnification provisions permitted under state law. The measure ranges from 0 to 6. For discussion, see section 2.2.2 and section 2.3 of the Online Appendix.
LP (OFF)	A measure of each state's protection of officers from monetary liability based on liability exemption and indemnification provisions permitted under state law. The measure ranges from 0 to 6. For discussion, see section 2.2.2 and section 2.3 of the Online Appendix.
Small	The firm has less than $100 million in assets adjusted using the CPI index to 2004 dollars.
Medium	The firm has more than or equal to $100 million in assets but less than $1 billion adjusted using the CPI index to 2004 dollars.
Institutional Ownership	The fraction of shares held by institutional shareholders sourced from Thomson Reuters 13F filings.
Ind. Premium > median$_{t-1}$	A dummy equal to 1 if the average takeover premium in the industry in year $t-1$ is greater than the median industry takeover premium across industry-years using the Fama French 49 industries. Data on takeover premiums is sourced from from SDC.
# Industry Takeovers$_{t-1}$	The number of 100% completed takeovers in the industry in year $t-1$ using the Fama French 49 industries. Data on takeovers is sourced from SDC.
Extreme	A dummy equal to 1 if Dead Hand is equal to 1 or if the state has a statute that requires firms implement a staggered board. For , discussion see section 2.2.1 and section 2.2 of the Online Appendix.
Home Bias	A dummy equal to 1 if a firm incorporates in the state in which it is headquartered.
Pill Statute	A dummy equal to 1 if a state has a poison pill validation statute described in Table A3 of the Online Appendix. For discussion, see section 2.2.1 and section 2.2 of the Online Appendix.
$ Industry Takeovers$_{t-1}$	The dollar volume of 100% completed takeovers in the industry in year $t-1$ using the Fama French 49 industries. Dollar amounts are converted to 2004 dollars using the CPI. Data on takeovers is sourced from SDC.
Manager > 15%	A dummy equal to 1 if managers (both directors and officers) hold more than 15% of the stock of the company. Data on managerial shareholding is sourced from Thompson Reuters forms 3,4 and 5.
Director > 15%	A dummy equal to 1 if directors hold more than 15% of the stock of the company. Data on managerial shareholding is sourced from Thompson Financial forms 3,4 and 5.
Officer > 15%	A dummy equal to 1 if officers hold more than 15% of the stock of the company. Data on managerial shareholding is sourced from Thompson Financial forms 3,4 and 5.

Figures

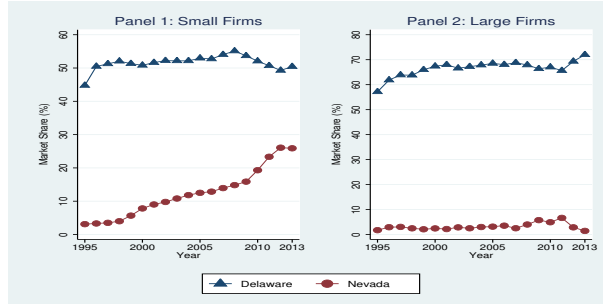## Figure 1: Market Shares of Delaware

This figure shows the trends in the market share of Delaware between 1995 and 2013 among all firms and among firms that incorporate out of their home state.

## Figure 2: Market Shares of Nevada, California and New York
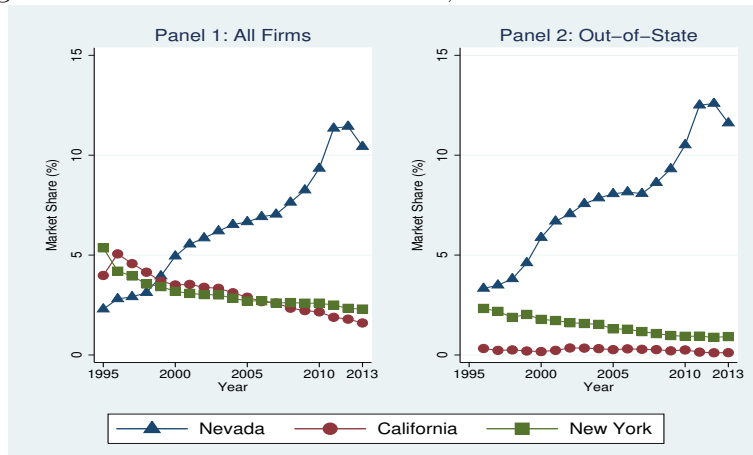
This figure shows the trends in the market shares of Nevada, California and New York between 1995 and 2013. In panel 1, the market share is computed using all firms, and in panel 2, the market share is computed using only firms that incorporate out of their home state.

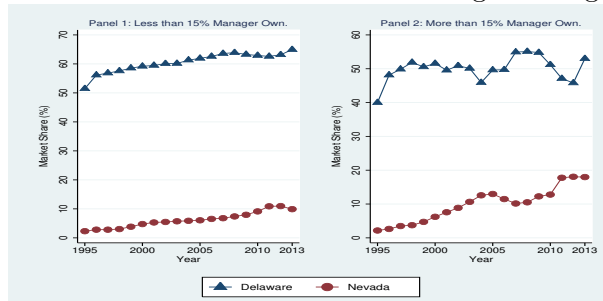Figure 3: Market Shares of Delaware and Nevada for Small and Large Firms

This figure shows the trends in Delaware and Nevada market shares between 1995 and 2013 among large and small firms. In panel 1, the market share is computed using only firms with less than $100 million in total assets. In panel 2, the market share is computed using only firms with more than $1 billion in total assets.

Figure 4: Market Shares of Firms with Low and High Institutional Ownership
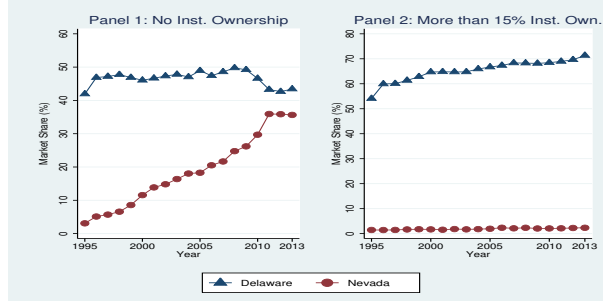

This figure shows the trends in Delaware and Nevada market shares between 1995 and 2013 among firms with high and low institutional ownership. In panel 1, the market share is computed using only firms with no institutional ownership. In panel 2, the market share is computed using only firms with at least 15% institutional owners.

Figure 5: Market Share of Firms with Low and High Managerial Ownership

This figure shows the trends in Delaware and Nevada market shares between 1995 and 2013 among firms with high and low managerial stock ownership. In panel 1, the market share is computed using only firms with less than 15% managerial ownership. In panel 2, the market share is computed using only firms with at least 15% managerial ownership.

Figure 6: Counterfactual 1 - Delaware Adopts Maximum ATS
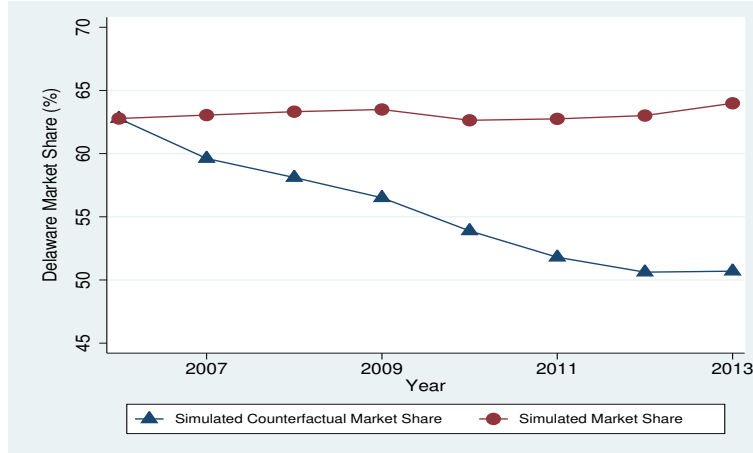
This figure compares Delaware's simulated market share given the state and firm characteristics observed in the sample to Delaware's simulated market share in the counterfactual scenario in which Delaware changes its laws in 2007 to increase the ATS index to its maximum level (i.e., ATS=5).

Figure 7: Counterfactual 2 - Delaware Adopts Maximum ATS, LP (DIR) and LP (OFF)
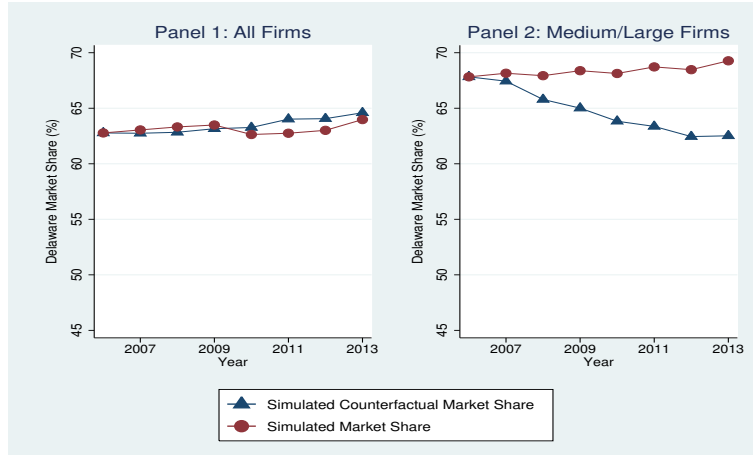
This figure compares Delaware's simulated market share given the state and firm characteristics observed in the sample to its simulated market share in the counterfactual scenario in which Delaware changes its laws in 2007 to increase the ATS, LP (DIR) and OFF indices to their maximum levels (i.e., ATS=5, LP (DIR)=6 and OFF=6). In panel 1, the market share is computed using all firms in the sample. In panel 2, the market share is computed using only firms with more than $100 million in total assets (i.e., medium and large firms).

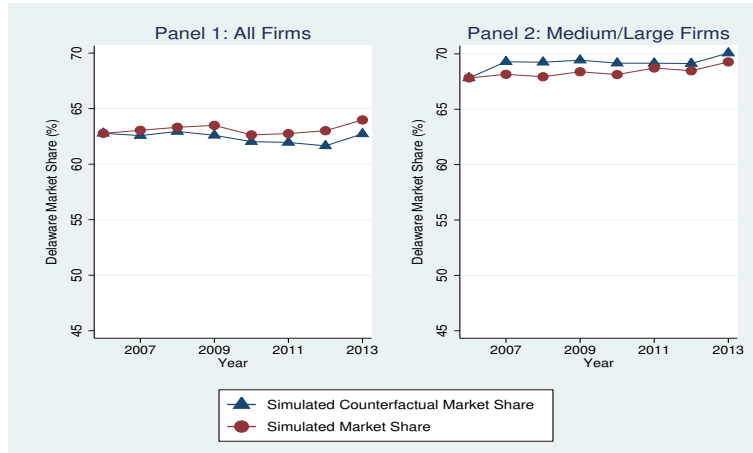Figure 8: Counterfactual 3 - Delaware Adopts Maximum ATS and LP (DIR)

This figure compares Delaware's simulated market share given the state and firm characteristics observed in the sample to its simulated market share in the counterfactual scenario in which Delaware changes its laws in 2007 to increase the ATS and LP (DIR) indices to their maximum levels (i.e., ATS=5 and LP (DIR)=6). In panel 1, the market share is computed using all firms in the sample. In panel 2, the market share is computed using only firms with more than $100 million in total assets (i.e., medium and large firms).
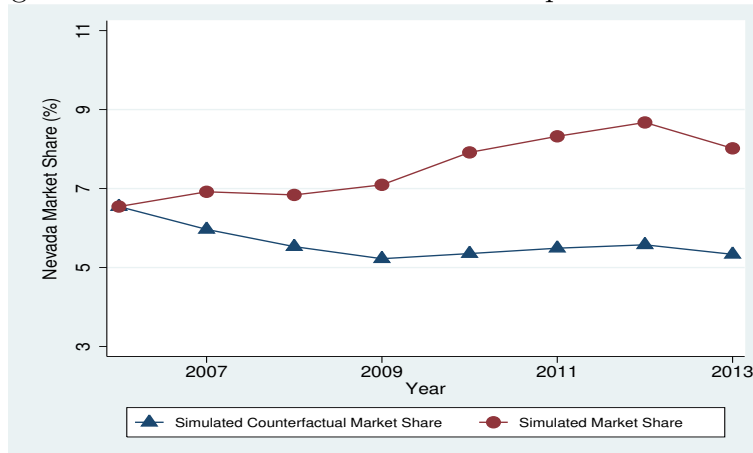
Figure 9: Counterfactual 4 - Nevada Adopts Delaware Law

This figure compares Nevada's simulated market share given the state and firm characteristics observed in the sample to its simulated market share in the counterfactual scenario in which Nevada changes its laws in 2007 such that its ATS, LP (DIR) and LP (OFF) indices will have the same values as those of Delaware law (i.e., ATS=1, LP (DIR)=2, and LP (OFF)=0.5).

Figure 10: In-Sample Predictions - Delaware and Nevada
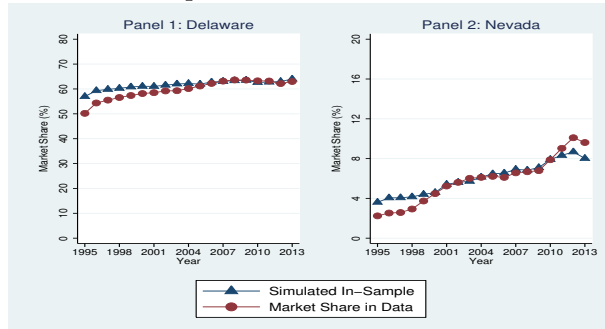
This figure compares the actual market shares of Delaware and Nevada and the in-sample predicted market shares of Delaware and Nevada.

Figure 11: In-Sample Predictions
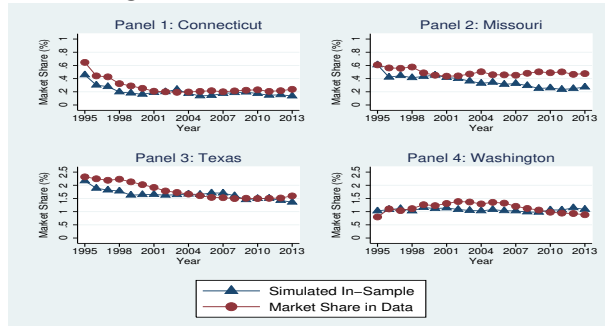
This figure compares the actual market shares of Connecticut, Missouri, Texas and Washington to their respective in-sample predicted market shares.

Figure 12: Out-of-Sample Predictions
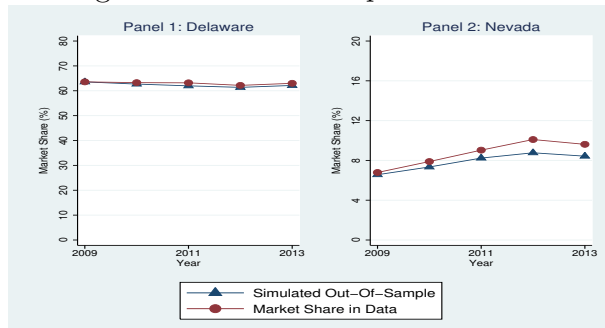
This figure compares the actual market shares of Delaware and Nevada and their predicted out-of-sample market shares for the period 2009-2013. Predicted market shares are obtained from estimating a model using the sample period 1995-2008.

Tables

Table 1: **Summary Statistics of Firm Characteristics**

	Mean	Std. Dev.	Min	Median	Max	N
Panel A: All Firms						
Total Assets ($ millions)	1,953.8	13,246.74	0	128.27	797,769	86,598
Sales ($ millions)	1,737.42	9,734.23	0	121.52	474,259	86,437
# of Employees (1000s)	7.17	36.3	0	0.6	2,200	84,097
Market Value ($ millions)	2,500.51	14,785.03	0	137.73	626,550.35	68,592
Institutional Ownership (%)	34.975	32.99	0	26.92	100	87,755
Managers Ownership > 15%	0.1	0.3	0	0	1	87,755
Directors Ownership > 15%	0.09	0.28	0	0	1	87,755
Officers Ownership > 15%	0.07	0.25	0	0	1	87,755
Panel B: Delaware Firms						
Total Assets ($ millions)	2,038.55	10,317.37	0	180.16	304,594	51,467
Sales ($ millions)	1,857.36	9,946.1	0	160.76	474,259	51,389
# of Employees (1000s)	7.63	42.21	0	0.73	2,200	50,331
Market Value ($ millions)	2,500.22	11,855.19	0	209.07	376,370.28	41,372
Institutional Ownership (%)	39.26	33.45	0	34.57	100	52,034
Managers Ownership > 15%	0.08	0.27	0	0	1	52,034
Directors Ownership > 15%	0.07	0.26	0	0	1	52,034
Officers Ownership > 15%	0.06	0.23	0	0	1	52,034
Panel C: Nevada Firms						
Total Assets ($ millions)	360.04	1,689.04	0	7.13	22,725.9	5,040
Sales ($ millions)	295.01	1,461.07	0	3.61	24,545.2	5,026
# of Employees (1000s)	1.88	8.95	0	0.03	125.95	4,613
Market Value ($ millions)	379.46	2,177.82	0	16.9	64,571.11	4,453
Institutional Ownership (%)	10.16	22.44	0	0	100	5,347
Managers Ownership > 15%	0.13	0.34	0	0	1	5,347
Directors Ownership > 15%	0.12	0.33	0	0	1	5,347
Officers Ownership > 15%	0.1	0.3	0	0	1	5,347

Table 2: **Summary of States' Laws Indices**

This table reports the scores for the ATS, LP (DIR) and LP (OFF) indices for Delaware and Nevada in 2013 and the state average between 1995-2013.

	ATS Index	LP (DIR) Index	LP (OFF) Index
Delaware	1	2	0.5
Nevada	5	5.3	5.3
Average	2.94	2.91	1.45

Table 3: **Correlation Table of States' Laws Indices**

This table reports the correlation matrix of the ATS, LP (DIR) and LP (OFF) indices in the period 1995-2013.

	ATS Index	LP (DIR) Index	LP (OFF) Index
ATS Index	1		
LP (DIR) Index	0.386***	1	
LP (OFF) Index	0.254***	0.558***	1

*** indicates statistical significance at a level $p = 0.01$.

Table 4: **Annual Industry Takeover Data**

This table reports summary statistics on takeover activity over the sample period 1995-2013, and across Fama French 49 industries. The "# Ind. Takeovers" refers to the number of 100% completed takeovers in the industry. Data on industry takeovers values are reported in billions of dollars. The four-week industry takeover premium is reported in percentage points. All dollar figures are converted to 2004 values using the Consumer Price Index. Source: SDC.

	Mean	Std. Dev.	Min.	Median	Max.	N
# Ind. Takeovers	131.2	204.1	0	70	1568	836
Ind. Takeovers Value ($ billions)	14.066	29.834	0	4.48	422.048	836
Ind. 4-week Premium (%)	49.82	160.439	-97.33	31.38	2,982.803	827

Table 5: **Rational Inertia Model with LP (DIR) and LP (OFF) Indices**

	(1)	(2)	(3)
ATS	-0.4448***	-0.4076***	-0.4097***
	(0.0744)	(0.0962)	(0.0962)
ATS $\times$ Small	0.0657	0.0678	0.0599
	(0.0405)	(0.0454)	(0.0456)
ATS $\times$ Medium	0.0184	0.0207	0.0152
	(0.0363)	(0.0426)	(0.0427)
ATS $\times$ Institutional Ownership	-0.0453	-0.0459	-0.0458
	(0.0411)	(0.0429)	(0.0431)
ATS $\times$ Industry Premium$_{t-1}$ > median		-0.0690***	-0.0692***
		(0.0224)	(0.0224)
ATS $\times$ Manager > 15%			0.0611**
			(0.0310)
Average ATS	-0.4260	-0.4349	-0.4366
- Small firms	-0.3846	-0.3949	-0.3968
- Medium firms	-0.4489	-0.4566	-0.4588
- Large firms	-0.4741	-0.4819	-0.4826
LP (DIR)	0.4733	0.4417	0.4424
	(0.5816)	(0.4457)	(0.4468)
LP (DIR) $\times$ Small	-0.1356 ***	-0.1373***	-0.1353**
	(0.0482)	(0.0644)	(0.0646)
LP (DIR) $\times$ Medium	-0.0604	-0.0632	-0.0613
	(0.0434)	(0.0568)	(0.0569)
LP (DIR) $\times$ Institutional Ownership	0.1765 ***	0.1764***	0.1788***
	(0.0494)	(0.0662)	(0.0666)
LP (DIR)$\times$ Ind. Premium$_{t-1}$ > median		0.0511	0.0508
		(0.0372)	(0.0373)
LP (DIR) $\times$ Director > 15%			-0.0210
			(0.0424)
Average LP (DIR)	0.4570	0.4588	0.4598
- Small firms	0.3592	0.3627	0.3628
- Medium firms	0.5007	0.5001	0.5027
- Large firms	0.5874	0.5888	0.5903

	(1)	(2)	(3)
LP (OFF)	0.1088	0.0861	0.0859
	(0.2540)	(0.4143)	(0.4153)
LP (OFF)× Small	0.3106 ***	0.3079***	0.3037***
	(0.0477)	(0.0514)	(0.0516)
LP (OFF)× Medium	0.0641	0.0630	0.0609
	(0.0537)	(0.0524)	(0.0526)
LP (OFF)× Institutional Ownership	-0.7461 ***	-0.7472***	-0.7543***
	(0.0672)	(0.0614)	(0.0623)
LP (OFF)× Ind. Premium$_{t-1}$ > median		0.0322	0.0330
		(0.0290)	(0.0290)
LP (OFF)× Officer > 15%			0.0425
			(0.0335)
Average LP (OFF)	-0.0042	-0.0067	-0.0087
- Small firms	0.3287	0.3261	0.3255
- Medium firms	-0.1980	-0.2006	-0.2032
- Large firms	-0.3734	-0.3760	-0.3796
Home Bias	4.4501***	4.4491***	4.4493***
	(0.0955)	(0.1144)	(0.1147)
Home Bias × Small	0.8378***	0.8338***	0.8385 ***
	(0.1029)	(0.1153)	(0.1156)
Home Bias × Medium	0.6276***	0.6289***	0.6307***
	(0.1084)	(0.1192)	(0.1194)
DE Fixed Effect	7.5986***	7.6022***	7.6041***
	(0.1862)	(0.1910)	(0.1914)
NV Fixed Effect	4.4581***	4.9323***	4.9281***
	(0.3995)	(0.7944)	(0.7953)
CA Fixed Effect	1.2141***	1.2130*	1.2144*
	(0.3678)	(0.7286)	(0.7306)
NY Fixed Effect	2.3451***	2.8315***	2.8346***
	(0.4706)	(0.4014)	(0.4020)
Average π	1.2%	1.2%	1.2%

Standard Errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

This table reports maximum likelihood estimates of the parameters of the rational inertia model. The dependent variable is a categorical variable that indicates the state of incorporation. The parameter estimates reflect the effect of one unit of each variable on the latent utility index of firms in the sample. All variables not defined herewith are defined in the Appendix. The table reports in bold firm utility with respect to one unit of each legal characteristic by firm size, given average firm characteristics (i.e., institutional ownership and managerial ownership) and parameter estimates. All specifications include state fixed effects, here reported for Delaware, Nevada, California and New York. The average π is the mean across firms-years of the probability that a firm makes an incorporation choice in any given year, obtained according to the formula in equation 4. The standard errors reported are computed using the Huber-White formula; see Train (2009). Firms with less than three observations are not included. The number of firm-year observations is 81,993, and there are 8,769 firms in the sample.

Table 6: **Rational Inertia Model with Poison Pill Statute Dummy**

	(1)	(2)	(3)
Pill Statute	-0.7579***	-0.7328***	-0.7461***
	(0.1996)	(0.2002)	(0.2003)
Pill Statute× Small	0.6245***	0.6286***	0.6281***
	(0.1669)	(0.1670)	(0.1668)
Pill Statute× Medium	-0.0283	-0.0278	-0.0285
	(0.1656)	(0.1656)	(0.1655)
Pill Statute× Institutional Ownership	-0.6806***	-0.6826***	-0.6802***
	(0.1461)	(0.1462)	(0.1462)
Pill Statute× Industry Premium$_{t-1}$ > median	-0.2218***	-0.2054***	-0.1868***
	(0.0736)	(0.0746)	(0.0770)
Dead Hand		-0.0198	
		(0.2615)	
Dead Hand × Industry Premium$_{t-1}$ > median		-0.2579	
		(0.2120)	
Extreme			-0.0347
			(0.2162)
Extreme × Industry Premium > median$_{t-1}$			-0.2330
			(0.1641)
Average Pill Statute Preference	-0.8949	-0.8572	-0.8573
- Small firms	-0.3756	-0.3348	-0.3350
- Medium firms	-1.2751	-1.2393	-1.2395
- Large firms	-1.3413	-1.3068	-1.3066
LP (DIR)	0.4857	0.4641	0.4682
	(0.3669)	(0.3648)	(0.3630)
LP (DIR) × Small	-0.2009***	-0.2049***	-0.2051***
	(0.0636)	(0.0637)	(0.0638)
LP (DIR) × Medium	-0.0359	-0.0385	-0.0385
	(0.0570)	(0.0569)	(0.0570)
LP (DIR) × Institutional Ownership	0.2799***	0.2796***	0.2789***
	(0.0653)	(0.0653)	(0.0657)
LP (DIR)× Ind. Premium$_{t-1}$ > median	0.0454	0.0481	0.0432
	(0.0363)	(0.0364)	(0.0363)
Average LP (DIR)	0.5182	0.4957	0.4961
- Small firms	0.3514	0.3278	0.3280
- Medium firms	0.6198	0.5972	0.5976
- Large firms	0.6960	0.6760	0.6764

	(1)	(2)	(3)
LP (OFF)	0.0992	0.1163	0.1156
	(0.3361)	(0.3303)	(0.3288)
LP (OFF)× Small	0.3016***	0.3031***	0.3033***
	(0.0525)	(0.0528)	(0.0529)
LP (OFF)× Medium	0.0706	0.0722	0.0723
	(0.0537)	(0.0539)	(0.0539)
LP (OFF)× Institutional Ownership	-0.7322***	-0.7346***	-0.7344***
	(0.0621)	(0.0626)	(0.0627)
LP (OFF)× Ind. Premium$_{t-1}$ > median	0.0198	0.0209	0.0204
	(0.0292)	(0.0294)	(0.0295)
Average LP (OFF)	0.0033	0.0214	0.0206
- Small firms	0.3261	0.3450	0.3443
- Medium firms	-0.1808	-0.1626	-0.1634
- Large firms	-0.3612	-0.3451	-0.3459

Standard Errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

This table reports maximum likelihood estimates of the parameters of the rational inertia model. The dependent variable is a categorical variable that indicates the state of incorporation. The parameter estimates reflect the effect of one unit of each variable on the latent utility index of firms in the sample. All variables not defined herewith are defined in the Appendix. The table reports in bold firm utility with respect to one unit of each legal characteristic by firm size, given average firm characteristics (i.e., institutional ownership and managerial ownership) and parameter estimates. Controls for Home Bias and states' fixed effects are included but not reported. The standard errors reported are computed using the Huber-White formula; see Train (2009). Firms with less than three observations are not included. The number of firm-year observations is 81,993, and there are 8,769 firms in the sample.

Table 7: **Rational Inertia Model with IV for Institutional Shareholding**

(1)		(2)	
ATS	-0.2975***	Pill Statute	0.0469
	(0.1041)		(0.4239)
ATS × Small	-0.0129	Pill Statute× Small	0.0051
	(0.0584)		(0.3323)
ATS × Medium	-0.0111	Pill Statute× Medium	-0.2551
	(0.0440)		(0.1997)
ATS × Institutional Ownership	-0.2124**	Pill Statute× Institutional Ownership	-1.9157***
	(0.0913)		(0.5854)
ATS × Industry Premium$_{t-1}$ > median	-0.0661***	Pill Statute× Industry Premium$_{t-1}$ > median	-0.2093
	(0.0225)		(0.1476)
LP (DIR)	0.2519	LP (DIR)	0.2312
	(0.4416)		(0.1687)
LP (DIR) × Small	0.0045	LP (DIR) × Small	-0.0110
	(0.0874)		(0.0821)
LP (DIR) × Medium	-0.0094	LP (DIR) × Medium	0.0309
	(0.0596)		(0.0494)
LP (DIR) × Institutional Ownership	0.4752***	LP (DIR) × Institutional Ownership	0.6744***
	(0.1472)		(0.1471)
LP (DIR)× Ind. Premium$_{t-1}$ > median	0.0286	LP (DIR)× Ind. Premium$_{t-1}$ > median	0.0270
	(0.0374)		(0.0350)
LP (OFF)	0.5871	LP (OFF)	0.5759***
	(0.4142)		(0.1631)
LP (OFF)× Small	-0.1163	LP (OFF)× Small	-0.0966
	(0.0773)		(0.0785)
LP (OFF)× Medium	-0.0962*	LP (OFF)× Medium	-0.0792
	(0.0550)		(0.0515)
LP (OFF)× Institutional Ownership	-1.4930***	LP (OFF)× Institutional Ownership	-1.4290***
	(0.1299)		(0.1331)
LP (OFF)× Ind. Premium$_{t-1}$ > median	0.0695***	LP (OFF)× Ind. Premium$_{t-1}$ > median	0.0524*
	(0.0294)		(0.0313)

Standard Errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

This table reports second stage maximum likelihood estimates of the parameters of the rational inertia model using the control function to implement the instrumental variable analysis. In the first stage (unreported), the endogenous variable, Institutional Shareholding, is regressed on the instrument, a dummy that equals 1 if a firm is included in the S&P 500 index in the relevant year, and the other exogenous variables. The dependent variable in the second stage is a categorical variable that indicates the state of incorporation. The parameter estimates reflect the effect of one unit of each variable on the latent utility index of firms in the sample. All variables not defined herewith are defined in the Appendix. Controls for Home Bias and states' fixed effects are included but not reported. The standard errors reported are computed using formulas for two-steps extremum estimators (Newey and McFadden, 1994). Firms with less than three observations are not included. The number of firm-year observations is 81,993, and there are 8,769 firms in the sample.

Online Appendix to

"Regulatory Competition and the Market for Corporate Law"

Ofer Eldar[*] and Lorenzo Magnolfi[†]

This Online Appendix provides additional descriptions of the data, a detailed legal analysis of the legal indices and their construction, and robustness results. Section 1 describes the data. Section 2 discusses in detail the legal indices. Section 3 contains a discussion of the effects of corporate law. Section 4 compares the rational inertia model to alternative models that do not include the inertia element. Section 5 presents several robustness tests, including: (1) estimation results for a specification of our model that includes the combined *LP* index; (2) an alternative specification of the probability of choosing that directly links the costs of choosing to firm characteristics; and (3) specifications without fixed effects. References to sections and tables refer to this Online Appendix unless it is stated that they refer to sections or tables in the article.

1   Data on Firm Incorporations

In this section we describe the construction of the data on incorporations. The state of incorporation is available on Compustat, but does not include historical data. Historical data is available on two main databases: SEC Analytics and Compustat Point in Time. However, each of these seems to have a large number of inaccuracies. SEC Analytics sources the information directly from SEC documents available from 1994, but it extracts the state of incorporation from the filing sheet rather than the document itself. The filing sheets are not updated in a timely fashion - very often they are updated three to four years after the actual reincorporation. For similar problems with SEC Analytics, see Heider & Ljungqvist (2015). Compustat Point in Time includes observations that extend to 1990 and firms with no public documents available on SEC Edgar website. However, this database appears to have a sizable number of mistakes manifested by the presence of firms that supposedly reincorporate several times within a short time frame; many of these mistakes cannot be corrected when public documents are not available, especially before 1994. Barzuza &

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Smith (2014) seem to address this problem by collecting data on reincorporations from Mergent, but Mergent includes only data from 2000, and does not identify other mistakes in Compustat that can only be detected by inspecting disclosure documents.

To address these problems, we create a new database by parsing data from over two million public documents available on SEC Edgar website. The parsing program sources the state of incorporation and the state of headquarters directly from the regular expressions on 10-Ks, 10-Qs and 8-Ks. In contrast to the filing sheets, the regular expressions are almost invariably accurate. We merge the parsed data with firm level data from Compustat. We further check manually (a) all firms where the parsing failed to identify the state from the document, (b) firms that had more than one reincorporation on the basis of the parsed data, and are therefore more likely to be mistakes, and (c) where there is a discrepancy with Compustat data in the last year of the database (i.e., 2013) when Compustat is supposed to be accurate. Finally, on sampling 200 reincorporations, we find no mistakes. Therefore, we have reasonable assurance that the database is highly accurate.

Table A1 presents descriptive statistics with respect to each state's market share of incorporations in 2013, including (a) each state's market share for all firms in the sample, (b) each state's market share for firms that incorporate out of the state where their headquarters are located, and (c) each state's retention rate, computed as the ratio of the number of locally headquartered firms incorporated in the state to the number of firms headquartered in that state. Although Delaware and Nevada are the most popular incorporation venues, almost 10% of the firms in the database (1,002 firms and 6,029 firm-year observations) choose at some point to incorporate out-of-state, but not in Delaware or Nevada. Table A2 shows a summary of the reincorporations we observe in our sample.

2   Laws' Characteristics

2.1   Anti-takeover statutes

In our main specification, we rely on the anti-takeover statutes ("ATS") index developed by Bebchuk & Cohen (2003) that counts the number of anti-takeover statutes in each state. Each state gets a score from 0 to 5 if it has one or more of the following statutes: constituency provisions, business combination statutes, control share statutes, fair price statutes, and poison pill validation laws. In Table A3 we describe the anti-takeover statutes, which are included in the ATS index discussed in section 2.2.1 of the article. We note that consistent with other studies, we do not include in the index idiosyncratic statutes that impede takeovers[1] or alternatively seek to facilitate them by placing restrictions on anti-

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[1]For example, California's Corporation Code prohibits a cash-out merger of minority shareholders in a controlled corporation unless the controlling shareholder owns at least 90% of the shares,

takeover defenses.[2]

2.2   Alternative Measures of Anti-takeover laws

As an alternative measure of anti-takeover laws, we use a dummy variable for poison pill statutes. The essence of such statutes is that they not only allow the board to adopt a poison pill, but they also protect the pill from judicial review. To be sure, many states, including Delaware, have case law that validates poison pills.[3] However, Delaware, as well as other states that follow it, subject the pill to some level of judicial scrutiny. In particular, under the *Unocal* standard, a poison pill is valid only if managers can show that there is a threat to their firm's policy and that the defensive measure in question is proportional to the threat posed.[4] Moreover, under the *Revlon* decision, if a sale or break-up of the company is inevitable, the board is obligated to pick the highest bid for shareholders.[5] This level of scrutiny does not generally apply when a state has a poison pill statute (Barzuza, 2009).

To be sure, there is disagreement as to whether the standard of review under *Unocal/Revlon* remains significant following the *Unitrin* decision[6], which held that a poison pill was valid because the bidder's chance of winning a proxy contest was not "mathematically impossible" or realistically unattainable. Whereas some believe that the decision made poison pills in Delaware largely immune to challenge (e.g., Bebchuk & Jackson, 2014), others argue that Delaware's standard of review remains an important constraint on managerial power to defend bids (e.g., Romano, 1993; Barzuza, 2009). The view that poison pill statutes matter is also supported by an Oklahoma Supreme Court case which held that shareholders of Oklahoma corporations may propose bylaws that restrict directors' implementation of poison pills, noting that had Oklahoma enacted a poison pill statute, it would have found the proposed bylaw invalid.[7]

We note that the poison pill statutes of two states, New York and North Carolina, validate the use of poison pills, but expressly subject them to judicial review. However, North Carolina also has a statute that provides that courts will apply the business judgment rule in reviewing anti-takeover tactics, including poison pills. New York has case law that rejects the applicability of the *Unocal/Revlon* standards of review to standard defensive

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the merger is approved by a California governmental agency, or shareholders approve the merger unanimously. Cal. Corp. Code §§1101.

[2]See North Dakota Publicly Traded Corporations Act, N.D. Cent. Code ch. 10-35 (2007), which requires, *inter alia*, shareholder approval for the adoption of poison pills.

[3]*Moran v. Household Int'l, Inc.*, 500 A.2d 1346 (Del. 1985).

[4]*Unocal Corp. v. Mesa Petroleum Co.*, 493 A.2d 946 (Del. 1985).

[5]*Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc.*, 506 A.2d 173 (Del.1986).

[6]*Amanda Acquisition Corp. v. Universal Foods Corp.*, 877 F.2d 496 (1989).

[7]See *Int'l Bhd. of Teamsters Gen. Fund v. Fleming Cos.*, 975 P.2d 907 (Okla. 1999).

tactics (see Barzuza, 2009). Accordingly, challenges to standard poison pills in these states are not subject the standard of review which is applicable to Delaware corporations.

Although the poison pill is the most prominent anti-takeover device, it is not completely fatal to a bid. In principle, the bidder may conduct a proxy fight to replace the incumbent board before the pill threshold is triggered. This strategy, however, is unlikely to succeed in two main circumstances. First, some states permit the use of an extreme form of poison pill known as a "dead hand" pill. A dead hand pill cannot be redeemed even by a new board of directors, thereby making the pill impossible to redeem by replacing the board. Two states, Maryland and Virginia, have adopted poison pill statutes that validate dead hand poison pills.[8] Likewise, two states, Pennsylvania and Georgia, have case law that validates dead hand pills.[9] By contrast, Delaware courts take seriously any interference with shareholders' voting rights in the context of defending a bid,[10] and they have expressly rejected the validity of dead hand pills under Delaware law.[11]

Accordingly, we use a dummy, *Dead Hand*, for states that have statutes or case law that validate a dead hand pill. We view this as an interaction term because all states that have validated a dead hand pill also have a poison pill statute. This is consistent with the view that a poison pill statute makes it more likely that courts will uphold dead hand pills (Barzuza, 2009).[12]

Second, if a firm has a staggered board, replacing the board can take several years and therefore a bid is more likely to fail (Bebchuk et al., 2002). A staggered or classified board is a practice in which a fraction (typically, one third) of the members of the board of directors is elected each year instead of the entire board standing for election. When the board is staggered, it could take more than a year before the bidder succeeds in replacing the target board. All states, including Delaware, allow firms to adopt staggered boards. However, a few states have adopted statutes requiring firms incorporated in the state to have staggered boards. Until recently, only Massachusetts had such a statutory provision.[13]

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[8]Md. Code Ann., Corps. & Ass'ns § 2-405.1(d); Va. Code Ann. § 13.1-727.1

[9]*Invacare Corp. v. Healthdyne Techs., Inc.*, 968 F. Supp. 1578, 1580-81 (N.D.Ga. 1997); *AMP Inc. v. Allied Signal, Inc.*, No. CIV. A. 98-4405, CIV. A. 98-4058, CIV. A. 98-4109, 1998 WL 778348 (E.D. Pa. Oct. 8, 1998).

[10]Pursuant to the *Blasius* case, managers may not use defensive tactics that interfere with shareholder voting rights in elections of directors unless they can show a compelling justification; *Blasius Industries, Inc. v. Atlas Corp.* 564 A.2d 651 (Del.Ch. 1988).

[11]*Quickturn Design Systems, Inc. v. Shapiro*, 721 A.2d 1281 (Del. 1998).

[12]Other than Delaware, the only other state that has invalidated a dead hand pill is New York; see *Bank of N.Y. Co. v. Irving Bank Corp.*, 528 N.Y.S.2d 482 (N.Y. Sup. Ct. 1988). Although New York has a poison pill statute, as explained above, its statute subjects poison pills to judicial review.

[13]Mass. Ann. Laws ch. 156D, § 8.06

More recently Indiana enacted such a law in 2009,[14] Oklahoma in 2010,[15] and Iowa in 2011.[16] In addition, one state, Maryland, allows the board to adopt a staggered board even if contrary to the firm's charter.[17] While some of these statutes allow firms to opt out the requirement to adopt staggered boards, as pointed out by Subramanian (2004), firms rarely opt out of anti-takeover laws that benefit managers. Thus, these laws seem to constitute a particularly strong form of anti-takeover statutes. Accordingly, to account for these statutes, we also use a dummy, *Extreme*, which is identical to *Dead Hand*, except that it is also set to one for states that have laws that impose staggered boards, or allow their adoption even if contrary to the charter.

In comparing Delaware to Nevada, we find that Nevada's laws are again more protective than Delaware's because Nevada has a poison pill statute. However, Nevada does not seem to permit dead hand pills and does not impose staggered boards,[18] and hence does not rank as the most protectionist state in this respect.[19]

Finally, we also conduct tests where we take into account the standards of review that each state has applied to the poison pill over time, following the analysis of Barzuza (2009). Our results are robust to this specification, but for simplicity we do not include them. We note, moreover, that the estimation with respect to *Dead Hand* and *Extreme* is likely to be relatively noisy because there is little cross-sectional and time-series variation in these variables.

2.3 Director and Officer Protection

Laws on exemption and indemnification differ along several dimensions. First, the standard of liability for which directors and officers can be exempted or indemnified differs from one state to another (see DeMott, 1988). The statutes of Delaware and many other states allow firms to exempt directors only if they acted in "good faith".[20] Some statutes, such as Delaware's, expressly prohibit firms from exempting directors from monetary liability for breaching the duty of loyalty. In any case, the "good faith" requirement has been interpreted to have this effect, and to allow exemption only from the duty of care (Romano,

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[14]Ind. Code Ann. § 23-1-33-6.

[15]Okla. Stat. Ann. tit. 18, § 1027

[16]Iowa Code § 490.806A

[17]Md. Code Ann., Corps. & Ass'ns § 3-803.

[18]It is noteworthy though that Nevada allows firms to stagger their boards over a term of four years, rather than three years. This arguably makes it harder to acquire control in Nevada firms; see Nev. Rev. Stat. Ann. § 78.330.

[19]Although Nevada has a a statute that imposes business judgment deference to anti-takeover defenses, it does apply a proportionality standard (which is similar to the *Unocal* standard) to tactics that interfere with shareholders' voting rights; Nev. Rev. Stat. Ann. § 78.139(2).

[20]Del. Code Ann. tit. 8, § 102(b)(7).

1990; Strine et al., 2010; Fleischer & Sussman, 2015). The duty of care requires managers to act in the same manner as a reasonably prudent person in their position would. It is generally associated with a gross negligence standard or sustained inattention. There are very few cases where courts found directors or officers to be liable for breaching their duty of care. The reason is that managers are protected by the business judgment rule, which stands for the principle that courts will not second-guess the business judgment of corporate managers and will find the duty of care has been met so long as the fiduciary executed a reasonably informed, good faith, rational judgment without the presence of a conflict of interest. Few states do not allow firms to exempt directors for liability even if they act in good faith if there was gross negligence or unexcused inattention.[21]

On the other hand, other states, such as Maryland and Virginia, allow firms to exempt directors even without good faith as long as there has been no willful or intentional misconduct.[22] This standard is generally viewed as permitting not only exemption from the duty of care, but also from the duty of loyalty. The duty of loyalty requires managers to act as fiduciaries in the best interests of the corporation, rather than for an improper motive or personal gain. This duty is manifested by courts' enhanced review of transactions that might be driven by managers' personal interest, such as takeovers and self-dealing transactions.

Most states' statutes provide that directors can only be exempted for actions taken in "good faith." Laws that enable corporations to exempt directors from the duty of loyalty typically provide that the exemption is not allowed if the conduct is intentional or willful. The laws of Pennsylvania, Indiana and Vermont do not allow exemption for recklessness, but do not have a good faith requirement.[23] Broadly stated, recklessness is less culpable than intention, but more culpable than negligence. We generally take the view that laws that carve out recklessness do allow exemptions from duty of loyalty.

Similar distinctions arise in the context of indemnification provisions. These provisions regulate the standard of liability for which directors can be indemnified both with respect to suits by third parties, and derivative suits by or in the name of the corporation. First, while some states, such as Delaware, allow indemnification for liability if the manager acted in good faith,[24] others, such as Maryland, permit indemnification without it.[25] However, while most states extend indemnification provisions to both directors and officers, most states' laws (including Delaware's) extend exemption from liability to directors only, and

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[21]e.g., California; Cal. Corp. Code § 204(10).

[22]e.g., Md. Corp. & Assns. § 2-405.2 and Va. Code Ann. § 13.1-692.1.

[23]See 15 Pa. Const. Stat. Ann. § 1713; Ind. Code Ann. § 23-1-35-1; Vt. Stat. Ann. tit. 11A § 2.02.

[24]Del. Code Ann. tit. 8, § 145.

[25]Md. Code Ann., Corps. & Ass'ns § 2-418.

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do not discuss officers at all. However, a few states, such as New Jersey and Nevada, extend this protection to officers as well.[26]

Laws that protect managers from liability also differ as to whether they are default or menu laws. Default rules apply if the corporate documents are silent, whereas menu laws do not apply unless corporations explicitly opt in in the corporate documents. There is literature demonstrating that menu provisions make it more likely that firms will adopt corporate governance provisions, and that firms very rarely opt out of corporate governance provisions embedded in default laws, especially if they are favorable to management (see Ayres, 1992; Romano, 1993; Subramanian, 2002; Listokin, 2009). States may also use default rules as a signal to firms about the appropriate level of culpability managers ought to face. Most states, including Delaware, adopt the menu approach to liability exemptions. This approach requires the board to obtain shareholder approval to effect a change to the articles of incorporation. However, several states, such as Wisconsin, exempt directors by a default rule.[27] Only one state, Nevada, exempts officers from liability by default.[28] In fact, Nevada actually adopted a mandatory exemption in 2001, but changed it to a default rule in 2003 (see Barzuza, 2012). We treat mandatory laws and default laws alike for the purpose of the index because firms rarely opt out of default laws.

Indemnification laws are slightly different from exemption laws in this regard because with few exceptions, they are embedded in menu options rather than default rules. An important distinction among states' indemnification laws is that under some statutes the board has sole discretion to indemnify managers (including directors), whereas some statutes require shareholder approval. The requirement for shareholder approval further depends on the type of liability. Many states follow Delaware in allowing the board to indemnify managers without shareholder approval if they acted in good faith. However, following the Model Business Act, many states allow the board to indemnify directors even without good faith if they obtain shareholder approval (by providing for such indemnification in the articles of incorporation).[29] Interestingly, the Model Business Act allows the board to indemnify officers without shareholder approval even if they act without good faith.[30] In this context, menu laws that do not require shareholder approval may be viewed as equivalent to default rules because they enable managers to protect themselves or their colleagues without input from shareholders.

We construct two indices, *LP (DIR)* and *LP (OFF)*, to capture the degree to which directors and officers are protected under each state's laws over time. In our main specifi-

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[26]E.g., N.J. Rev. Stat. § 14A:2-7.

[27]Wis. Stat. Ann. § 180.0828.

[28]Nev. Rev. Stat. Ann. § 78.138.

[29]Model Bus. Corp. Act §2.02(4).

[30]Model Bus. Corp. Act §8.56.

cation, we rate each state as follows:

- Exemptions from liability: 2 points if there is no good faith requirement (or if exemption from duty of loyalty is expressly permitted); 1 point if exemption is permitted subject to a good faith requirement; zero if exemption from gross negligence is not permitted. We add one point if the exemption is the default rule and there is no good faith requirement. The maximum score is three.

- Indemnification for liability: 2 points if there is no good faith requirement (or if indemnification for the duty of loyalty is expressly permitted); 1 point if indemnification is permitted subject to a good faith requirement; zero if indemnification for gross negligence is not permitted. We add one point if the board can indemnify the director or executive without shareholder approval and there is no good faith requirement. We give a separate score for indemnification provisions as they relate to (a) third-party lawsuits, and (b) corporate expenses in derivative suits, and divide the total score by two, such that the maximum score is three.[31]

For both *LP (DIR)* and *LP (OFF)* indices, we generally add up the scores for exemption and indemnification, such that the maximum score is six. But, when the exemption score is higher than the indemnification score, we let the indemnification score be equal to the exemption score; the rationale is that if the managers are exempted from liability, then indemnification becomes irrelevant. For the first specification, we use a combined index *LP* that ranges from 0 to 12 to proxy for the general level of liability protection for managers. But for our main specification, we split the index into *LP (DIR)* and *LP (OFF)*. We do not include idiosyncratic provisions[32] or non-exclusivity indemnification provisions in the indices.[33]

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[31] As noted in section 6.2 of the article, we also use as a robustness test a specification where the indemnification score takes into account provisions that allow firms to indemnify managers for liability for the settlement amounts in derivative suits. Several states, such as Wisconsin and Georgia, allow firms to provide directors and/or officers with such indemnification. However, it is uncertain whether such provisions have bite since they contemplate the absurd result that the company as the formal claimant in a derivative suit would indemnify the defendant. See Lockwood (2013).

[32] For example, Virginia law limits the liability of directors and officers by default to the greater of $100,000 or his or her cash compensation over the year preceding the act or omission giving rise to the liability, unless the articles of incorporation provide otherwise and unless the director or officer engaged in willful misconduct. Va. Code Ann. § 13.1-692.1. We gave Virginia a score of 4 on both *LP (OFF)* and *LP (DIR)* because to exempt managers from full liability for breach of the duty of loyalty requires shareholder approval.

[33] Many states' indemnification statutes, including Delaware (Del. Code Ann. tit. 8, § 145(f)), provide that statutory indemnification will not be deemed exclusive of other rights to which directors or officers may be entitled under any bylaw or contractual agreement. These provisions however do not seem to change the standard of liability for which indemnification is allowed (Lockwood, 2013).

2.4 Summary

To illustrate the cross-sectional variation among states' corporate laws, we present in Table A4 the scores of each state with respect to the *ATS*, *LP (DIR)* and *LP (OFF)* indices as of 2013.

3 The Effects of Corporate Law

One potential criticism of the empirical strategy we use is that corporate law does not materially affect outcomes. In particular, it might be argued that anti-takeover statutes do not affect the probability of takeovers. On this view, Delaware's case law is highly protective of management because it validates the poison pill, and the level of judicial review is viewed by some as minimal (Kahan, 2006; Catan & Kahan, 2016; Cremers & Ferrell, 2014). Similarly, it could be argued that Nevada's liability protections are not materially more protective of management, either because other states already allow firms to exempt managers from the duty of loyalty through a menu option (as opposed to Nevada's default rules) or because directors and officers are also heavily protected by insurance policies and rarely pay out of pocket (Black et. al, 2006).

The question then is what explains the robustness of the results we obtain. One explanation is that corporate laws do affect outcomes, at least to some extent. Delaware law is generally associated with a higher takeover probability (Daines, 2001). While Delaware case law has validated the poison pill, it also subjects it to judicial review under the *Unocal* and *Revlon* standards. On the other hand, it may be argued that Delaware's favorable takeover environment stems primarily from the presence of an expert judiciary that resolves disputes efficiently, and not from the lack of anti-takeover statutes, especially a pill validation statute.

To test these claims we run logit regressions where the dependent variable is a 50% completed takeover, and the coefficients of interest are the coefficients on the *ATS* index or *Pill Statute*. We use standard controls used by Cremers et al. (2009), such as the lagged industry adjusted Tobin's Q and return on investment, as well as the number of takeovers in the industry in the previous year. The results reported in columns (1) and (2) in Table A5 show that the probability of takeover is negatively related to the *ATS* index and *Pill Statute*. When alternatively we use a Delaware dummy as a coefficient of interest (column (3) of Table A5), the results re-affirm the result in Daines (2001) that Delaware law is associated with higher takeover probability. When we include both the *ATS* index and the Delaware dummy (column (4) of Table A5), the coefficient on *ATS* remains negative and the coefficient on the Delaware dummy remains positive. However,

when we use *Pill Statute* instead of *ATS*, the coefficient on the Delaware dummy becomes statistically insignificant, while the coefficient on *Pill Statute* is negative and statistically significant (see column (5) of Table A5). Thus, takeover statutes, especially pill validation statutes, are negatively correlated with higher takeover probability even when controlling for Delaware incorporation; therefore, this suggests that takeover statutes do matter.[34]

Similarly, it may be argued that Nevada liability protections do make a significant difference. While directors and officers rarely pay out of pocket in shareholder litigation, there is evidence that the quality of corporate governance, including the state of incorporation, may affect the insurance premiums paid by corporations for director and officer insurance (Baker & Griffith, 2007). Although there is no concrete data on this, it is likely that the extent to which directors and officers can be exempted or indemnified for liability under states' corporate laws has an impact on such premiums. Moreover, while Nevada (as well as other states) already allowed firms to exempt officers from the duty of loyalty prior to 2001 through a menu option, research has shown that firms do not always adopt menu options, whereas firms virtually never opt out of default provisions that benefit managers (Listokin, 2009). In fact, in a sample of 106 firms incorporated in Nevada in 2001, 35 firms did not protect their managers from liability to the fullest extent permitted under Nevada law (Eldar, 2016). Firms' adoption of corporate governance provisions itself may be subject to rational inertia, and firms therefore may be sluggish in amending their charters to benefit from corporate menu options.

A second explanation is that even if the laws by themselves do not directly affect outcomes, they are correlated with unobserved attributes of states' legal systems. In particular, states' legislatures may signal a commitment to firms to protect certain interests, whether they are those of shareholders, managers or local constituencies. Romano (2006) points out that Delaware's takeover-friendly environment is reflected in the legislature's reluctance to adopt many anti-takeover statutes. In fact, Bebchuk & Cohen (2003) justify the use of the *ATS* index not by insisting that it is consequential, but rather by arguing that anti-takeover statutes are viewed as potentially consequential by those making incorporation decisions. Barzuza (2009) surveyed state anti-takeover laws and showed that the strength of poison pill statutes and constituency statutes increased the likelihood that the courts would uphold a dead hand pill. Thus, it is no surprise that Georgia and Pennsylvania, two states with

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[34]These results are robust to using 30% or 100% completed takeovers, except that for 100% completed takeovers the negative coefficient on *ATS* in the specification of column (4) of Table A5 is not statistically significant. Following Daines (2001), we also repeat these regressions using only mature firms with at least five years in the sample and without firms that reincorporated at some point in the sample period. The results are generally robust, except that in the specifications in columns (4) and (5) of Table A5, the negative coefficients on *ATS* and *Pill Statute*, respectively, are not statistically significant. Note though that the Delaware incorporation dummy does not only control for Delaware's quality but also encompasses the lack of anti-takeover statutes.

five anti-takeover statutes, also have case law that validates the dead hand pill, whereas Delaware has rejected its validity. Similarly, Nevada's decision to make liability limitations the default rule might be a signal to small firms that their interests will be protected under Nevada law. This signal may even be viewed as part of a marketing campaign to attract firms to Nevada (see Barzuza, 2012).

This explanation is also consistent with Kahan & Rock (2015) who argue that corporate governance has symbolic value. Firms have adopted many pro-shareholder policies in recent years, such as increasing shareholder access to the proxy, even though they arguably have a trivial effect on the quality of governance. Consistent with our counterfactual analysis, a scenario in which Delaware enacted many anti-takeover statutes is equally likely to trigger fierce opposition by institutional investors because if anything, such statutes surely have symbolic value in delineating the balance of power between shareholder and mangers.

4 Comparison of the Inertia Model to Alternative Models

In section 3 of the article we argued that our model of rational inertia better reflects firms' decision-making. In this section we further show that it better fits the data as compared to alternative models. In particular, we examine a naive multinomial logit model in which firms make a choice every period with or without a dummy for switching costs (i.e., a dummy that equals 1 when a firm reincorporates into another jurisdiction). This comparison is important because these alternative models which were used in prior literature (e.g., Daines, 2002; Bebchuk & Cohen, 2003; Subramanian, 2004) yield different results, and in particular, the elasticity in the demand for corporate law under these models is significantly smaller. Accordingly, such models would predict smaller shifts (if any) in market shares if Delaware became more protectionist by adopting more anti-takeover laws.

Table A6 shows the results for the multinomial logit model without switching costs in column (1) and the model with switching costs in column (2). The coefficients on *ATS* are either smaller in magnitude than in the inertia model without switching costs, or largely insignificant in the model with switching costs. The coefficient on switching costs is very strong (-8.15) and even larger than the Delaware fixed effect. Also, the dislike of larger firms for *LP (OFF)* is trivial in these two models as compared to the inertia model.

In order to compare the models, we use a likelihood-based information criterion, known as the Akaike Information Criterion ("AIC"). The rationale underlying the AIC is to evaluate the distance between the fitted model and the unknown true model that generated the observed data (Burnham & Anderson, 2002).[35] The AIC is based on the value of the log-

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[35]We note that in this context we cannot use a statistical test that compares only the likelihood ratios because such a test can only be used to compare nested models, whereas the model of rational

likelihood of the model evaluated at the parameter estimates, but it also takes into account the number of parameters in order to penalize over-fitting. The AIC is computed as follows. Given the likelihood function $\mathcal{L}_m(\theta^m; x)$ of model m, data x and the parameter estimate $\hat{\theta}^m$, $AIC(m) := -2\log\mathcal{L}_m\left(\hat{\theta}^m; x\right) + 2K_m$, where K_m is the dimension of the parameter vector θ^m.

Table A7 shows the value of AIC using different models and specifications. The lower the AIC, the better the model fits that data. Burnham and Anderson (2002) suggest that a heuristic model comparison can be based on the difference in AIC, and a model that has an AIC which is 10 units greater than the best alternative model has little support from the data (even when the value of the log likelihood is of a greater order of magnitude). It is clear from the table that the multinomial model without switching costs is the worst model under all specifications. A model with switching costs does substantially better because it better explains the inertia in market shifts. However, it is inferior to our model of rational inertia. For example, in the baseline model in column (1) of Table A7, the AIC of the switching costs model is 26,704 and the AIC of the inertia model is 25,264. Since differences in AIC are around 1,400, we can conclude that the switching costs model fails to explain substantive aspects of the data that are captured by the rational inertia model.

Finally, as an alternative to the AIC, we also compute the Bayesian Information Criterion ("BIC"), which is defined as follows: $BIC(m) := -2\log\mathcal{L}_m\left(\hat{\theta}^m; x\right) + K_m \times ln(n)$, where n is the number of firm year observations. The values of the BIC are largely the same as the values of the AIC, and again, indicate that our model fits the data better than other models.

5 Robustness

5.1 Alternative Specification with Combined *LP* Index

We consider a specification of our model that uses the combined *LP* index; we show the estimation results for this specification in Table A8. The coefficient on *LP*, the combined measure of managerial liability protection, is approximately 0.22 for the average firm. This coefficient is large, especially for small firms with few institutional shareholders. This evidence suggests that Nevada's level of liability protection is mainly attractive to a specific segment of the market, though all firms like some level of protection. Interestingly, the preference for *LP* increases when the average industry takeover premium is above the median. This reflects the intuition that managers may be concerned about their liability when there is a higher likelihood of takeovers.

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inertia and the model with switching costs include different parameters.

5.2 Linking the Costs of Choosing to Firm Characteristics

The model of inertia described in section 3 of the article is very parsimonious, as the distribution of cost of attention is constant across firms. Although in that model firm-specific characteristics influence the expected benefit of choosing (as they enter the indirect utility from incorporation), characteristics do not directly affect the cost of making a choice of incorporation. However, it may be that larger firms, or those with more institutional shareholding, have access to more sophisticated legal counsel and face lower costs of choosing the state of incorporation. Conversely, it may be that the greater complexity of large firms' operations generates higher costs of considering the incorporation decision. If some firm characteristics that are associated with Delaware incorporation, such as firm size and institutional ownership, make firms less likely to make a choice, our counterfactuals may be overstating the decrease in market share that would follow a deterioration of Delaware law, thus invalidating the finding that Delaware is subject to competitive pressure.

Hence, we let the cost of considering the incorporation choice for firm i at time t, denoted as c_{it}, be distributed iid according to a logistic distribution with parameters (μ_{it}, σ), where $\mu_{it} = \mu_0 + \sum_r \mu_r z_{it}^r$. Hence, firm-specific observable characteristics have a linear effect,[36] through the coefficients μ_r, on the mean firm-specific cost of choosing a state of incorporation. This model follows previous empirical studies of choice under inertia (Ho et al. 2017, Handel 2013) that link the probability of choosing or switching to individual characteristics. Since we do not observe when firms make choices, but only when they change their states of incorporation, the parameters μ are identified from the covariation of the probability of mid-stream reincorporation and firm specific characteristics.

The estimation results for this model, reported in Table A6, are substantially the same as in the main specification in Table 5 of the article. Firm characteristics seem to have some effect on the probability of choosing the state of incorporation: institutional ownership is associated with higher cost of choosing the state of incorporation, and small and medium firms face lower costs of attention than large firms. However, because larger firms tend to have higher institutional shareholding there is no significant economic difference between the costs of choosing across firms with different sizes. Accordingly, unreported counterfactual analysis is virtually identical to that reported in Figures 6-9 in the main text.

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[36]Richer specifications, allowing for nonlinear effects, are immediate extensions. However, neither theory nor exploratory regressions of firm-level characteristics on the probability of reincorporation suggest any particular nonlinear specification, so we adopt the parsimonious linear form.

5.3 Specifications without Fixed Effects

We consider specifications without state fixed effects. It might be argued that our results, primarily the negative coefficients on anti-takeover statutes, derive solely from the inclusion of fixed effects. In contrast, Bebchuk & Cohen (2003) find a positive coefficient on anti-takeover statutes in a logit model where firms have a choice to incorporate in their home state (coded as 1) or migrate to Delaware (coded as 0).

We first present results that replicate Bebchuk & Cohen's basic finding in our sample. As shown in columns 1 and 2 of Table A10, there is a positive correlation between the ATS index and the decision to incorporate in the home state. As discussed in Kahan (2006), the major problem with this specification is that it does not control for unobservable state factors. To take one obvious example, California which does not have any of the anti-takeover statutes included in the ATS index loses many firms to Delaware; yet the loss of firms to Delaware is more plausibly related to other factors, primarily that California courts are widely regarded as being unfavorable to business. Thus, the fixed effect of California in our main specification in Table 5 in the article is very low as compared to Delaware.[37]

Second, states that have adopted anti-takeover statutes, such as Texas and Connecticut, in the sample period have actually lost some, albeit small, market share (see Figure 11 in the main text). Thus, when we add fixed effects to Bebchuk & Cohen (2003) the coefficient on the ATS index is negative (columns 3 and 4 of Table A10).

Nonetheless, we emphasize that the signs on the coefficients we obtain in the inertia model do not hinge on the inclusion of fixed effects. In fact, these signs are also robust to specifications without controlling for inertia in decision-making. In Table A11, we report two specifications without fixed effects, one for a simple multinomial logit model, and the other with inertia in decision-making. Both specifications generate negative coefficients on the ATS index that are actually larger than the equivalent specification with fixed effects. This is not surprising because the fixed effects attribute most of the shift to Delaware to institutional qualities or network effects, rather than the lack of anti-takeover statutes. Bebchuk & Cohen (2003)'s model essentially assumes away the possibility that lack of anti-takeover statutes may affect firms' perceptions of Delaware incorporation. In contrast, our model allows for this possibility, but also controls for unobservable factors.

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[37]Second, many of the other states that have no anti-takeover statutes, such as Alaska and Alabama, have legislatures that are simply not attentive to business needs at all (whether driven by managers or shareholders), and hence the lack of responsiveness arguably better explains their inability to retain firms.

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Tables

Table A1: Incorporations by State in 2013

Column (2) presents each state's market share for incorporations in 2013 for all firms in the sample. Column (3) presents each state's market share in 2013 for firms that incorporate out of the state where their headquarters are located. Column (4) presents retention rate in 2013 by state, computed as the ratio of the number of locally headquartered firms incorporated in the state to the number of firms headquartered in that state. All market shares and retention rates are in percentage points.

(1)	(2)	(3)	(4)
State	Market Share	Market Share of Out-of-State incorporations	Retention Rate
AK	.06	.038	50
AL	0	0	0
AR	.03	0	7.143
AZ	.091	0	5.556
CA	1.602	.115	7.862
CO	1.27	.846	17.241
CT	.212	0	10.145
DC	0	0	0
DE	64.148	81.284	100
FL	1.995	.615	31.447
GA	.574	.077	22.667
HI	.03	0	20
IA	.181	.077	36.364
ID	.06	.077	0
IL	.333	0	8.397
IN	.695	.231	47.222
KS	.121	.038	20
KY	.06	0	12.5
LA	.121	.038	15.789
MA	1.028	.077	18.713
MD	.967	.922	16.327
ME	0	0	0
MI	.605	.038	33.929
MN	1.935	.192	65.556
MO	.453	.154	26.19
MS	.03	0	25
MT	.06	.038	25
NC	.514	.077	19.481
ND	.03	.038	0
NE	.06	0	12.5
NH	0	0	0
NJ	.816	.423	11.594
NM	0	0	0
NV	10.429	11.606	71.667
NY	2.297	.922	18.909
OH	1.572	.231	51.111
OK	.181	0	20.69
OR	.605	.115	58.621
PA	1.239	.346	30.769
RI	.091	.038	18.182
SC	.121	.038	23.077
SD	.06	0	100
TN	.393	.038	25
TX	1.542	.231	13.158
UT	.514	.192	28.571
VA	1.028	.538	23.529
VT	0	0	0
WA	.816	.115	34.286
WI	.877	.077	56.25
WV	.03	0	25
WY	.121	.115	20

Table A2: Summary of Reincorporations

For each state, column (2) presents the total number of reincorporations into the state. Column (3) reports the number of firms that migrate away from the state and reincorporate in another state. Columns (4) and (5) report the number of firms that migrate away from the state and reincorporate in Delaware and Nevada respectively.

(1)	(2)	(3)	(4)	(5)
State	Total Reincorporations In	Total Reincorporations Out	Total Reincorporations in DE	Total Reincorporations in NV
AK	0	1	1	0
AL	0	4	4	0
AR	0	1	1	0
AZ	0	6	4	1
CA	6	104	96	5
CO	7	55	34	11
CT	0	4	3	0
DC	0	0	0	0
DE	386	105	0	28
FL	27	31	22	6
GA	7	5	4	0
HI	0	1	1	0
IA	0	3	3	0
ID	0	6	6	0
IL	5	5	5	0
IN	5	2	2	0
KS	1	1	1	0
KY	0	2	1	0
LA	1	1	1	0
MA	1	12	9	0
MD	10	2	2	0
ME	0	1	1	0
MI	4	5	5	0
MN	4	23	16	3
MO	0	4	2	2
MS	1	1	0	1
MT	1	0	0	0
NC	1	2	2	0
ND	1	1	0	1
NE	0	1	0	0
NH	0	1	0	1
NJ	0	21	14	2
NM	0	3	1	1
NV	72	56	48	0
NY	0	46	42	1
OH	5	9	7	0
OK	4	5	2	0
OR	2	4	3	0
PA	8	8	5	2
RI	0	0	0	0
SC	0	0	0	0
SD	0	1	1	0
TN	5	3	3	0
TX	6	11	11	0
UT	2	14	10	2
VA	2	3	3	0
VT	1	0	0	0
WA	9	8	6	2
WI	3	3	3	0
WV	0	0	0	0
WY	4	6	1	3
Total	591	591	386	72

Table A3: **Anti-takeover Statutes**

Statute	Description
Business Combinations	Business combination statutes prevent a bidder that gains control from merging the target with its own assets for a specified period of time (unless certain difficult-to-meet conditions are satisfied).
Constituency Statute	Statute allowing managers to take into account the interests of non-shareholders in defending against a takeover.
Control Share Acquisition	A control share acquisition statute requires a hostile bidder to put its offer to a vote of the shareholders before proceeding with it. If a bidder does not do so and purchases a large block of shares, it is not able to vote these shares at all and thus will not be able to gain control despite its large holdings.
Fair-price	A fair-price statute requires a bidder who succeeds in gaining control and then proceeds with a second-step freeze-out (a transaction removing remaining shareholders) to pay the remaining minority shareholders the same price it paid for shares acquired through its bid.
Poison-pill Validation	Statutes that protect poison pills from judicial review. Poison pills are warrants or rights issued by the company that are triggered and entitle their holders to significant value in the event that any buyer obtains a significant block without the approval of the board.

Table A4: Summary of State Law Indexes in 2013

State	ATS Index	Directors Protection Index	Officers Protection Index
AK	0	2	.5
AL	0	2	.5
AR	0	2	.5
AZ	5	4	3
CA	0	.5	.5
CO	1	2	.5
CT	4	1	1
DC	0	4.5	3
DE	1	2	.5
FL	4	2	.5
GA	4	4	3
HI	3	4	3
IA	3	4	2.5
ID	5	4	3
IL	4	2	.5
IN	5	6	1
KS	2	2	.5
KY	4	2	.5
LA	3	3	3
MA	4	2	1
MD	5	4	4
ME	3	4	3
MI	4	4	.5
MN	5	2	1
MO	5	3	2
MS	4	4	3
MT	0	4	.5
NC	4	4	.5
ND	1	2	1
NE	3	4	3
NH	0	4	4
NJ	4	2	2
NM	1	.5	.5
NV	5	6	6
NY	4	2	.5
OH	5	6	.5
OK	2	2	.5
OR	4	2	.5
PA	5	4	.5
RI	4	2	1
SC	4	.5	.5
SD	5	5	3
TN	5	2	.5
TX	3	2	1
UT	2	4	.5
VA	4	4	4
VT	1	4	.5
WA	3	4	2
WI	5	6	3
WV	0	3	3
WY	4	4	3

Table A5: **Takeover Probability Logit Regressions**

	(1)	(2)	(3)	(4)	(5)
ATS	-0.120***			-0.0574*	
	(0.0206)			(0.0343)	
Pill Statute		-0.469***			-0.337**
		(0.0717)			(0.133)
DE			0.419***	0.271**	0.148
			(0.0670)	(0.111)	(0.124)
Q	-0.0333***	-0.0325***	-0.0321***	-0.0324***	-0.0322***
	(0.0113)	(0.0110)	(0.0110)	(0.0111)	(0.0110)
ln(Cash)	-0.645***	-0.649***	-0.640***	-0.651***	-0.652***
	(0.209)	(0.208)	(0.208)	(0.208)	(0.208)
Leverage	0.136***	0.133***	0.131***	0.132***	0.132***
	(0.0237)	(0.0234)	(0.0233)	(0.0235)	(0.0234)
ROA	0.0310	0.0314	0.0327	0.0318	0.0317
	(0.0324)	(0.0323)	(0.0324)	(0.0325)	(0.0324)
# Ind. Takeovers	0.0127	0.0121	0.0117	0.0118	0.0118
	(0.00861)	(0.00862)	(0.00861)	(0.00862)	(0.00862)
Institutional Ownership	-0.138	-0.155	-0.162	-0.156	-0.160
	(0.161)	(0.161)	(0.161)	(0.161)	(0.161)
ln(Mkvalt)	0.0213	0.0183	0.0159	0.0172	0.0169
	(0.0221)	(0.0221)	(0.0221)	(0.0222)	(0.0222)
Year dummies	Yes	Yes	Yes	Yes	Yes
$Pseudo - R^2$	0.0176	0.0183	0.0179	0.0182	0.0185

Standard Errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

This table presents results of the maximum likelihood estimates of the logit model for the total sample excluding observations with missing variables. The dependent variable is a dummy (target) equal to 1 if the company is target of a 50% completed takeover. All variables not defined herewith are defined in the Appendix. DE is a dummy equal to 1 if the company is incorporated in Delaware. Q is the ratio of market-to-book value of assets, where market assets are defined as total assets plus market value of common stock minus book common equity and differed taxes. ROA is the return on assets. Leverage is the book debt to asset ratio. ln(Cash) is the natural log of cash and short-term investments to assets ratio. ln(Mkvalt) is the natural log of market value. # Industry Takeovers is equal to the number of 50% completed takeovers in the industry in the previous year, based on the Fama-French 49 industry classification. Q, ROA, and ln(Cash) are all industry adjusted and (together with ln(Mkvalt)) winsorized at the 1% level. All independent variables are measured at the end of the fiscal year previous to the takeover event. Robust standard errors are reported in parentheses. The number of firm-year observations is 64,376, and there are 8,443 firms in the sample.

Table A6: **Rational Inertia Model with Firm-specific Cost of Incorporation Choice**

ATS	-0.4462 ***	Home Bias	4.4327
	(0.0980)		(0.1230)
ATS × Small	0.0964 **	Home Bias × Small	0.8328***
	(0.0491)		(0.1228)
ATS × Medium	0.0501	Home Bias × Medium	0.6274***
	(0.0452)		(0.1273)
ATS × Institutional Ownership	-0.0625*	Fixed Effect DE	7.5887***
	(0.0442)		(0.2504)
ATS × Industry Premium$_{t-1}$ > median	-0.0697***	Fixed Effect NV	[]***
	(0.0225)		[]
LP (DIR)	0.4554	μ	19.2105***
	(0.8595)		(1.2483)
LP (DIR) × Small	-0.1627***	μ_{Small}	-2.2980***
	(0.0689)		(0.6315)
LP (DIR) × Medium	-0.0915	μ_{Medium}	-2.3905***
	(0.0619)		(0.6983)
LP (DIR) × Institutional Ownership	0.1987***	$\mu_{\text{Institutional Ownership}}$	4.3215***
	(0.0684)		(0.9436)
LP (DIR)× Ind. Premium$_{t-1}$ > median	0.0559	μ $_{\text{Industry Premiu}m_{t-1} > \text{median}}$	0.0599
	(0.0377)		(0.2694)
LP (OFF)	0.0685	Average μ_{it}	18.9781
	(0.7899)		
LP (OFF)× Small	0.3330***	Average μ_{it} for Large Firms	22.0424
	(0.0576)		
LP (OFF)× Medium	0.0962	Average μ_{it} for Medium Firms	19.0090
	(0.0598)		
LP (OFF)× Institutional Ownership	-0.7981***	Average μ_{it} for Small Firms	17.4811
	(0.0673)		
LP (OFF)× Ind. Premium$_{t-1}$ > median	0.0281	Average π_{it}	1.15%
	(0.0295)		

Standard Errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

This table reports maximum likelihood estimates of the parameters of the rational inertia model, with firm-specific cost of incorporation choice that depends on firm characteristics. The dependent variable is a categorical variable that indicates the state of incorporation. Parameter estimates on the left-hand side of the table reflect the effect of one unit of each variable on the latent utility index of firms in the sample. Firms with less than three observations are not included. The number of firm-year observations is 81,993, and there are 8,769 firms in the sample.

Table A7: **Multinomial Logit and Switching Costs Models**

	Multinomial Logit	Switching Costs
	(1)	(2)
ATS	-0.1479***	-0.0361
	(0.0297)	(0.0648)
ATS × Small	0.0077	-0.0248
	(0.0145)	(0.0321)
ATS × Medium	-0.0181	-0.0730***
	(0.0132)	(0.0305)
ATS × Institutional Ownership	0.0149	0.0643
	(0.0151)	(0.0397)
ATS × Industry Premium$_{t-1}$ > median	-0.0418***	-0.0674
	(0.0074)	(0.0187)
ATS × Manager > 15%	0.0727***	0.0440*
	(0.0106)	(0.0264)
Average ATS	-0.1743	-0.0898
- Small firms	-0.1684	-0.0941
- Medium firms	-0.1870	-0.1125
- Large firms	-0.1653	-0.0219
LP (DIR)	0.2375***	0.2327*
	(0.0503)	(0.1171)
LP (DIR) × Small	-0.1122***	-0.0104
	(0.0212)	(0.0528)
LP (DIR) × Medium	0.0094	0.0479
	(0.0171)	(0.0508)
LP (DIR) × Institutional Ownership	0.0628***	0.1096*
	(0.0246)	(0.0644)
LP (DIR)× Ind. Premium$_{t-1}$ > median	0.0596***	0.0553*
	(0.0126)	(0.0312)
LP (DIR) × Director > 15%	-0.0569***	-0.0008
	(0.0161)	(0.0454)
Average LP (DIR)	0.2556	0.3237
- Small firms	0.1758	0.2680
- Medium firms	0.3186	0.3637
- Large firms	0.3166	0.3326

	(1)	(2)
LP (OFF)	0.2225***	0.2335 **
	(0.0494)	(0.1138)
LP (OFF)× Small	0.1491***	0.1435***
	(0.0191)	(0.0407)
LP (OFF)× Medium	-0.0738 ***	-0.0699 **
	(0.0154)	(0.0400)
LP (OFF)× Institutional Ownership	-0.4105***	-0.5007***
	(0.0227)	(0.0513)
LP (OFF)× Ind. Premium$_{t-1}$ > median	0.0604***	0.0447
	(0.0112)	(0.0294)
LP (OFF)× Officer > 15%	0.0709***	0.0474
	(0.0131)	(0.0342)
Average LP (OFF)	0.0932	0.1360
- Small firms	0.3015	0.3576
- Medium firms	-0.0744	-0.0424
- Large firms	-0.0609	-0.0612
Home Bias	4.9118***	3.5110***
	(0.0286)	(0.1307)
Home Bias × Small	0.2584***	1.1842***
	(0.0305)	(0.1348)
Home Bias × Medium	0.3744***	0.9334***
	(0.0326)	(0.1421)
DE Fixed Effect	7.0802***	6.2831***
	(0.1450)	(0.1645)
NV Fixed Effect	3.6393***	2.4122***
	(0.2252)	(0.4251)
CA Fixed Effect	0.7083***	0.5739***
	(0.1602)	(0.2332)
NY Fixed Effect	1.9502***	1.3564***
	(0.1782)	(0.2688)
Switching Cost		-8.1463***
		(0.0737)

Standard Errors in parentheses. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

This table reports maximum likelihood estimates of the parameters of the multinomial logit model. The dependent variable is a categorical variable that indicates the state of incorporation. The parameter estimates reflect the effect of one unit of each variable on the latent utility index of firms in the sample. Switching Costs is a dummy equal to 1 if a firm reincorporates in a new a state in a given year. All variables not defined herewith are defined in the Appendix to the article. The table reports in bold firm utility with respect to one unit of each legal characteristic by firm size, given average firm characteristics (i.e., institutional ownership and managerial ownership) and parameter estimates. All specifications include state fixed effects, here reported for Delaware, Nevada, California and New York. The standard errors reported are computed using the Huber-White formula; see Train (2009). Firms with less than three observations are not included. The number of firm-year observations is 81,993, and there are 8,769 firms in the sample.

Table A8: **Goodness of Fit**

	Baseline	With Takeovers	With Takeovers and Insiders
	(1)	(2)	(3)
MNL	191,108	191,066	190,960
Switching Costs	26,704	26,696	26,690
Inertia	25,264	25,264	25,256

The table reports the values of the Akaike Information Criterion (AIC) for different models. MNL is the multinomial logit model; see Table A7. Switching Costs is the multinomial logit model that includes a Switching Costs dummy variable; see Table A7. Inertia is the rational inertia model described in section 3 of the article; see Table 5 in the article. Column (1) reports AIC values for the baseline model estimated without interacting state characteristics with takeover variables (e.g., Ind. $Premium_{t-1} >$ median) and managerial ownership dummies; see column (1) of Table 5 in the article. Column (2) reports AIC values for models estimated with interacting state characteristics with Ind. $Premium_{t-1} >$ median; see column (2) of Table 5 in the article. Column (3) reports AIC values for models estimated with interacting state characteristics with Ind. $Premium_{t-1} >$ median and managerial ownership dummies; see column (3) of Table 5 in the article. Lower values of AIC with respect to the same data specifications in each column indicate better fit. Models that have an AIC which is 10 units greater than the best alternative model using the same data have very little support from the data (Burnham and Anderson, 2002).

Table A9: **Rational Inertia Model with the Combined LP Index**

	(1)	(2)	(3)
ATS	-0.4044***	-0.3656***	-0.3686***
	(0.0879)	(0.0891)	(0.0892)
ATS × Small	0.0106	0.0130	0.0024
	(0.0390)	(0.0396)	(0.0398)
ATS × Medium	0.0014	0.0036	-0.0035
	(0.0350)	(0.0355)	(0.0356)
ATS × Institutional Ownership	0.0169	0.0164	0.0174
	(0.0389)	(0.0394)	(0.0397)
ATS × Industry Premium$_{t-1}$ > median		-0.0710***	-0.0713***
		(0.0213)	(0.0214)
ATS × Manager > 15%			0.0816**
			(0.0320)
Average ATS	-0.3931	-0.4017	-0.4038
- Small firms	-0.3917	-0.4017	-0.4043
- Medium firms	-0.3945	-0.4021	-0.4045
- Large firms	-0.3934	-0.4010	-0.4016
LP	0.2733***	0.2474***	0.2489***
	(0.0296)	(0.0316)	(0.0317)
LP × Small	0.1228***	0.1205***	0.1222***
	(0.0231)	(0.0234)	(0.0235)
LP × Medium	0.0100	0.0081	0.0095
	(0.0240)	(0.0241)	(0.0242)
LP × Institutional Ownership	-0.2960***	-0.2967***	-0.2983***
	(0.0247)	(0.0250)	(0.0252)
LP× Ind. Premium$_{t-1}$ > median		0.0401***	0.0403***
		(0.0132)	(0.0132)
LP × Manager > 15%			-0.0154
			(0.0182)
Average LP	0.2229	0.2227	0.2235
- Small firms	0.3601	0.3606	0.3617
- Medium firms	0.1362	0.1352	0.1360
- Large firms	0.0820	0.0816	0.0818

	(1)	(2)	(3)
Home Bias	4.4198***	4.4160***	4.4181***
	(0.1094)	(0.1102)	(0.1104)
Home Bias × Small	0.9031***	0.9042***	0.9032***
	(0.1072)	(0.1078)	(0.1080)
Home Bias × Medium	0.6035***	0.6047***	0.6059***
	(0.1098)	(0.1105)	(0.1107)
DE Fixed Effect	7.5641***	7.5674***	7.5691***
	(0.1872)	(0.1870)	(0.1873)
NV Fixed Effect	4.7307***	4.7582***	4.7538***
	(0.4429)	(0.4520)	(0.4460)
CA Fixed Effect	1.0133***	1.0097***	1.0100***
	(0.1867)	(0.1865)	(0.1868)
NY Fixed Effect	2.7568***	2.7624***	2.7644***
	(0.3736)	(0.3749)	(0.3753)
Average π	1.18%	1.18%	1.18%

Standard Errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

This table reports maximum likelihood estimates of the parameters of the rational inertia model. The dependent variable is a categorical variable that indicates the state of incorporation. The parameter estimates reflect the effect of one unit of each variable on the latent utility index of firms in the sample. All variables not defined herewith are defined in the Appendix. The table reports in bold firm utility with respect to one unit of each legal characteristic by firm size, given average firm characteristics (i.e., institutional ownership and managerial ownership) and parameter estimates. All specifications include state fixed effects, here reported for Delaware, Nevada, California and New York. The average π is the mean across firms-years of the probability that a firm makes an incorporation choice in any given year, obtained according to the formula in equation 4. The standard errors reported are computed using the Huber-White formula; see Train (2009). Firms with less than three observations are not included. The number of firm-year observations is 81,993, and there are 8,769 firms in the sample.

Table A10: Logit Regressions for In-State Incorporation

| | Dependent Variable: In-State Incorporation | | | |
| | Without State FE | | With State FE | |
	(1)	(2)	(3)	(4)
ATS	0.2259***	0.1040***	-0.3069***	-0.3132***
	(0.0922)	(0.0058)	(0.0304)	(0.0309)
LP (DIR)		0.2654***		0.1083**
		(0.0073)		(0.0549)
LP (OFF)		-0.0886***		-0.2250***
		(0.0081)		(0.0519)
Pseudo R^2	0.0473	0.0604	0.1179	0.1181

Standard Errors in parentheses. $* \, p < 0.10$, $** \, p < 0.05$, $* * * \, p < 0.01$

This table reports maximum likelihood estimates of the parameters for Logit regressions. The dependent variable is a binary variable that indicates in-state incorporation. The parameter estimates reflect the effect of one unit of each variable on the latent utility index of firms in the sample. The specifications in columns (1) and (2) do not include state fixed effects; specifications in columns (1) and (2) include instead the full set of state fixed effects. All specifications include two-digit industry dummy variables. Firms with less than three observations are not included. The number of firm-year observations is 81,993, and there are 8,769 firms in the sample.

Table A11: **Multinomial Logit and Rational Inertia Model without Fixed Effects**

	Multinomial Logit	Inertia
	(1)	(2)
ATS	-0.2791***	-0.3275***
	(0.0075)	(0.0868)
ATS × Small	0.0462***	0.1335**
	(0.0072)	(0.0423)
ATS × Medium	-0.0179***	0.0551
	(0.0061)	(0.0386)
ATS × Institutional Ownership	-0.0315***	-0.1013***
	(0.0085)	(0.0419)
ATS × Industry Premium$_{t-1}$ > median	-0.0198***	-0.0341
	(0.0046)	(0.0209)
LP (DIR)	0.0872***	0.0628
	(0.0106)	(0.1450)
LP (DIR) × Small	-0.0296***	-0.0145
	(0.0101)	(0.0614)
LP (DIR) × Medium	0.0218***	0.0120
	(0.0083)	(0.0476)
LP (DIR) × Institutional Ownership	0.0419***	0.1058
	(0.0119)	(0.0718)
LP (DIR)× Ind. Premium$_{t-1}$ > median	0.0232***	0.0264
	(0.0066)	(0.0351)
LP (OFF)	0.0280**	-0.2529*
	(0.0136)	(0.1374)
LP (OFF)× Small	0.0245*	0.3911***
	(0.0128)	(0.0531)
LP (OFF)× Medium	-0.1919 ***	0.0565
	(0.0122)	(0.0427)
LP (OFF)× Institutional Ownership	-0.6719***	-1.2296
	(0.0169)	(0.0646)
LP (OFF)× Ind. Premium$_{t-1}$ > median	-0.0292***	0.0721***
	(0.0085)	(0.0291)

Standard Errors in parentheses. $* p < 0.10$, $** p < 0.05$, $*** p < 0.01$

This table reports maximum likelihood estimates of the parameters of the multinomial logit model and of the rational inertia model without fixed effects. The dependent variable is a categorical variable that indicates the state of incorporation. The parameter estimates reflect the effect of one unit of each variable on the latent utility index of firms in the sample. All variables not defined herewith are defined in the Appendix to the article. These specifications do not include state fixed effects. Firms with less than three observations are not included. The number of firm-year observations is 81,993, and there are 8,769 firms in the sample.