THE FINANCIAL VALUE OF CORPORATE LAW:

EVIDENCE FROM (RE)INCORPORATIONS

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ABSTRACT

This paper provides novel evidence concerning the association between firm value and state corporate law regarding takeovers. We use plausibly exogenous variation in incorporation at the IPO stage from the law firm identity, finding that Delaware incorporation is negatively related to firm value. Consistent with this, firms reincorporating into (out of) Delaware decrease (increase) in firm value. Reincorporations into Delaware lead to more takeovers and results seem driven by firms with stronger shareholder-stakeholder conflicts of interests. Therefore, state corporate law seems to matter for firm value primarily by affecting shareholder commitment to long-term value creation, only secondarily by reducing managerial entrenchment.

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1. Introduction

In the last 40 years, a large body of literature has developed on the financial value of state corporate law and state competition for (re)incorporation. The common assumption of these studies is that interstate competition affects the way state corporate laws respond to managerial moral hazard, i.e., the risk that managers may use their control over the corporation to pursue their own interests rather than the shareholders' interests (Jensen and Meckling, 1976).

Delaware has long been at the core of this debate, both as the state firmly holding the dominant share of the (re)incorporation market and the one with the best-developed takeover case law (Bebchuk and Cohen, 2003). As Delaware has relatively few antitakeover statutes, several studies have described it as a takeover-friendly state, which would reduce the risk of managerial moral hazard and, thus, explain why firms benefit from Delaware (re)incorporation (see Romano, 2001). Consistent with this interpretation, earlier event studies found that financial value is higher for Delaware firms (Dodd and Leftwich, 1980; Romano, 1985; Heron and Lewellen, 1998). Daines (2001) similarly finds that financial value (proxied by Tobin's Q) is higher for Delaware firms than for firms incorporated elsewhere in the cross-section of firms. More recent contributions, however, have argued that prior studies fail to provide conclusive evidence on the higher value of Delaware (re)incorporation due to both methodological and endogeneity concerns (Bebchuk and Ferrell, 2001; Gompers, Ishii, and Metrick, 2003; Subramanian, 2002; Bebchuk and Cohen, 2003; Litvak, 2015). In addition, they argue that Delaware law would not be takeover-friendly due to its judicial validation of the poison pill (Subramanian, 2004; Bebchuk, Cohen, and Ferrell, 2002; Coates, 2001).

In this paper, we revisit the debate on the value of state corporate law – and, in particular, Delaware law – by reconsidering the common assumption that addressing managerial moral hazard constitutes the primary, if not exclusive, channel through which state corporate law matters for firm value.

Theoretically, our analysis starts from the proposition that the separation of ownership and control, combined with asymmetric information and incomplete contracting issues, gives rise to an additional agency problem – namely the shareholders' limited commitment problem (Cremers, Litov and Sepe, 2015). This problem arises out of the inability of public shareholders vested with strong exit rights – and who rationally attempt to maximize the value of their holdings – to credibly commit not to remove the board in a proxy contest or sell their shares in a

hostile takeover (Laffont and Tirole, 1988; Stein, 1988, 1989; Mizik and Jacobson, 2007; Edmans, 2011; Manso, 2011). Anticipating the limited commitment of shareholders to long-term value creation, important stakeholders whose business relationships are critical for long-term value creation may be discouraged to invest optimally in the firm (Knoeber, 1986; Shleifer and Summer, 1988; Johnson, Karpoff, and Yi, 2014).

Although the managerial moral hazard problem and the shareholder limited commitment problem are not mutually exclusive and could have different relevance for different firms, they yield different predictions on the value of state corporate law. If one focuses on the managerial moral hazard problem, state corporate law essentially matters for entrenchment, i.e., the degree of managerial protection from market discipline. Under this "entrenchment view," state antitakeover statutes would reduce a firm's exposure to the market for corporate control, aggravating managerial moral hazard and ultimately reducing firm value (for a survey, see Gartman, 2000). On the contrary, focusing on the shareholder limited commitment problem suggests that state corporate law primarily matters for a firm's ability to commit to the long term. Under this "commitment view," state antitakeover statutes would provide shareholders with an *ex-ante* commitment device to a firm's current business strategy, encouraging other stakeholders to likewise more strongly commit to their relationship with the firm and thereby increasing firm value.

With this theoretical framework in the background, we provide novel empirical evidence concerning how state corporate law is associated with firm value (as measured by Tobin's Q) by considering a database with historical (re)incorporation information for *all* publicly traded firms in the U.S. To the best of our knowledge, this database, which covers over 10,000 U.S. firms for the period 1994-2012 and includes over 80,000 firm-year observations, has not been previously used in the literature on the value of state corporate law. It also considers a significantly larger number of (re)incorporations than those previously examined in this literature – namely, 470 reincorporations, including 331 firms reincorporating into Delaware and 92 firms reincorporating out of (i.e., leaving) Delaware.

The first contribution of our research is documenting that the previously documented *cross-sectional* Delaware *incorporation* effect is positive only in the 1990s (8% higher *Q*, confirming Daines, 2001), negative in the 2000s (4% lower *Q*), and statistically insignificant during the full 1994-2012 period. As (re)incorporations are endogenous, we then use plausibly

exogenous variation in the state of incorporation at the IPO stage from the identity of the law firm advising the corporation at the IPO. This instrument was suggested by Coates (2001) and implemented by Johnson, Karpoff, and Yi (2014), who find that the law firm identity helps explain firm-level takeover defenses at the IPO. Conjecturing that the law firm identity similarly generates plausibly exogenous variation in the chosen state of incorporation at the IPO, we then use the hand-collected data of Johnson, Karpoff, and Yi (2014) on the law firm identity at the IPO to identify IPO firms for which Delaware incorporation is likely due to their law firm's general policy rather than firm-specific circumstances that give rise to self-selection concerns. We find that Delaware incorporation is negatively related to financial value. Economically, a standard deviation increase in the likelihood that a law firm advises Delaware incorporation is associated with a decline in financial value of 3.3% for firms incorporated in Delaware.

Our next main new finding is that, in the *time series*, firms reincorporating into (out of) Delaware decrease (increase) in firm value. This negative reincorporation association with firm value into Delaware seems related to Delaware's relatively few antitakeover statutes. Indeed, contrary to Delaware, reincorporation into managerial-friendly legislations, which have a relatively high number of antitakeover statutes, has a positive association with firm value, while reincorporation into states with a medium level of antitakeover statutes has an insignificant association. Change-in-Q regressions suggest that these valuation changes take effect over several years. For example, firms reincorporating into (out of) Delaware experience changes in Tobin's Q of -4.5% (+3.5%) over 2 years and of -14.1% (+11.5%) over the 4 year period subsequent to the reincorporation.

Consistent with the importance of state antitakeover statutes, we also find that the takeover channel plays a major role. In particular, facilitating a future takeover seems to be a major reason to reincorporate into Delaware, as Delaware reincorporation is associated with high probability of subsequently being taken over. Conversely, avoiding a takeover seems to provide a major reason to reincorporate into managerial-friendly jurisdictions.[1]

[1] For example, out of the 331 firms reincorporating into Delaware in our sample, 97 (or 29%) received a takeover bid, while only 6 out of (or 7% of) the 91 firms in our sample that reincorporated into managerial-friendly states received a takeover bid, and none out of 61 of those 91 firms coming from Delaware did. In contrast to the view that Delaware provides a relatively unfriendly environment for takeovers (Bebchuk and Ferrell (2001), Subramanian (2002), and Bebchuk and Cohen (2003)), our results thus indicate that firms regard Delaware as relatively takeover-friendly and that Delaware seems to facilitate changes in control. Also, our reincorporation results are robust to incorporating the takeover premium.

While these reincorporation results are consistent with the cross-sectional results we obtain using plausibly exogenous variation, they need to be interpreted with caution, as reincorporation decisions also are endogenous. Acknowledging the importance of self-selection, we put our reincorporation results to further testing by verifying the channel through which state corporate law may matter the most for firm valuation. We also observe, however, that while the possibility of self-selection is compatible with the commitment view of state corporate law, it seems incompatible with the entrenchment view, as under that view re-incorporating into managerial-friendly jurisdictions aggravates managerial moral hazard and lowers firm value, benefitting managers rather than shareholders (and vice versa for reincorporations into Delaware).[2]

In testing the respective importance of the moral hazard versus the limited commitment channel, we use a variety of firm-level proxies designed to identify firms where these problems seem especially relevant. We also try to further mitigate endogeneity concerns by focusing on industry-level proxies or proxies for firm-level characteristics that seem less at the discretion of management.

For the importance of the limited commitment, we employ four different proxies. First, we consider whether the firm is engaged in research and development, which is generally long-term in nature. Second, we consider whether the firm has any large customers, i.e., at least one customer accounting for 10% or more of its sales, as a proxy for the importance of (long-term) customers as in Johnson, Karpoff, and Yi (2014). Third, we consider the contract specificity measure that was introduced by Nunn (2007). This measure, which is based on the proportion of a firm's intermediate inputs that is not sold on an organized exchange, identifies firms in industries requiring more relationship-specific investments and hence we use it as proxy for businesses requiring more commitment. Fourth and finally, we use Cremers, Nair, and Peyer

[2] On the one hand, our results indicate that after leaving Delaware, firm value increases and exposure to the market for corporate control declines. As a result, shareholders gain after leaving Delaware and entering a more managerial-friendly jurisdiction. Self-selection could, at least in part, explain this result, as firms leaving Delaware tend to have low value beforehand, which would imply that their boards anticipate future value increases. On the other hand, shareholder commitment requires trust in the board, lack of which may cause shareholders to pressure non-Delaware firms to reincorporate into Delaware to facilitate a takeover. The subsequent decline in value after reincorporation into Delaware may be partly due to self-selection (where boards are more likely to 'give in' if directors anticipate disappointing future earnings) and partly due to an aggravated limited commitment problem. Conversely, the entrenchment view fails to explain why anyone would anticipate a value increase (decrease) after reincorporating into (out of) managerial-friendly states or why, as our results suggest, reincorporating out of (into) Delaware seems in (against) the shareholders' interests.

(2008), who code for 'relationship-intensive' industries generally characterized by longer-term relationships between the corporation and stakeholders such as employees, customers, and suppliers.

Empirically, we find strong evidence that the increased (decreased) value for firms reincorporating out of (into) Delaware is driven by firms where the limited commitment problem seems most relevant, or where stakeholder relationships may benefit the most from reduced exposure to the market for corporate control. In particular, the increase in Tobin's Q after reincorporation is considerably higher for firms engaged in R&D, firms with a large customer, firms in industries requiring relationship-specific investments, and firms in relationship-intensive industries.

Next, we employ two proxies for a firm's exposure to the market for corporate control, each of which can be expected to both mitigate managerial moral hazard and aggravate the limited commitment problem: industry-wide takeover activity in the previous year, and the percentage of shares held by institutional investors owning blocks of at least 5% of outstanding shares.[3] We find that the negative Delaware reincorporation effect is stronger in periods of significant M&A activity and for firms with larger institutional block-owners, consistent with the view that the shareholder limited commitment problem – rather than managerial moral hazard – is the primary channel through which state corporate law influences firm value.

Finally, we examine how firm-level antitakeover provisions interact with the channel through which state corporate laws relate to firm value. Using the corporate governance database from Cremers and Ferrell (2014), which covers 30-years of corporate governance choices (1978-2007), we distinguish between bilateral and unilateral board protection provisions. As suggested by Cremers, Masconale, and Sepe (2015), bilateral protection provisions (such as firms with a staggered board and supermajority requirements to amend the charter and approve mergers) require shareholder approval and hence are useful to commit both the board and the shareholders to longer-term value creation. Conversely, unilateral protection provisions (such as poison pills, golden parachutes, and supermajority requirements to change bylaws) can be adopted without

[3] On the one hand, these investors are likely to have both the resources and incentives to be able to effectively monitor management, hence reducing the room for managerial moral hazard (Cremers and Nair, 2005; Tirole, 2006). On the other, they are less exposed to the collective action problems that affect diffused shareholder actions (Agrawal and Knoeber, 1996; Knoeber, 1986), which makes the threat of board removal more serious and hence exacerbates the limited commitment problem.

shareholder approval to protect incumbent directors and top executives from market discipline (see Cremers, Masconale and Sepe, 2015).

This analysis provides two noteworthy results. First, the negative Delaware effect is significantly mitigated by the adoption of bilateral firm-level protection provisions.[4] Second, unilateral protection provisions that require little or no shareholder involvement are only negatively associated with firm value in managerial-friendly states. Combined together, these results suggest that managerial entrenchment is not the major agency problem for firms incorporated in Delaware (perhaps because its takeover-friendly nature already provides sufficient market discipline), though it remains important in states where firms may have more limited exposure to the market for corporate control.

The remainder of the paper is organized as follows. In Section 2, we discuss the related literature. In Section 3, we present our sample and summary statistics. In Section 4, we discuss our empirical results. Section 5 concludes.

2. Related Literature

Our work primarily relates to the literature examining the effect of interstate competition for corporate charters on firm value and actual (re)incorporation decisions, and the literature investigating the relation between antitakeover defenses (and antitakeover laws) and firm performance.

2.1. Effect of Interstate Competition for Charters on Corporations

An extensive scholarship has investigated the relation between interstate competition and firm value. Theoretical contributions offer two contrasting explanations of this relation and derive similarly contrasting policy considerations. Race-to-the-top scholars praise interstate competition as the "genius of American corporate law" (Romano, 1985), contending that competition induces states to adopt value-enhancing laws that constrain managerial moral hazard in order to attract a larger number of (re)incorporations (Winter, 1977; Easterbrook and Fischel, 1991; Romano,

[4] Consistent with this result, we also find a positive rather than negative, Delaware effect for firms with a controlling shareholder as proxied by dual class stock. A possible explanation for this finding is that dual class stock provides an alternative mechanism that may reduce the limited commitment problem, although this may come at the expense of aggravating the managerial moral hazard problem (which the relatively takeover-friendly corporate law in Delaware may address more effectively).

1985, 1993). Supporters of the opposing "race to the bottom" view argue instead that states compete by catering to the interest of managers – the constituency with the largest influence over (re)incorporation decisions – at the expense of shareholders (Cary, 1974; Bebchuk, 1992; Bebchuk and Ferrell, 1999, 2001).[5]

Empirical contributions have primarily focused on analyzing how firm value is affected by reincorporation into Delaware and are similarly divided. Event studies of Delaware reincorporation (Dodd and Leftwich, 1980; Romano, 1985; Peterson, 1988; Netter and Poulsen, 1989; Wang, 1996; Heron and Lewellen, 1998) have been largely criticized for failing to exclude the confounding events that tend to accompany a firm's reincorporation decisions, such as merger and acquisition programs, dividend increases, and higher takeover probability (Bebchuk, Cohen, and Ferrell, 2002; Subramanian, 2002; Daines, 2001). Similarly, while Daines (2001) reports that firms incorporated in Delaware have higher financial value, subsequent studies have reached opposite results. Gompers, Ishi, and Metrick (2003) find incorporation into Delaware to be associated with a lower Tobin's Q during the 1990s. Bebchuk, Ferrell, and Cohen (2002) contend that the large fluctuation in size of the Delaware effect indicates that Daines' evidence might be affected by a selection bias, and Subramanian (2004) finds that the Delaware effect is driven by small firms and disappears after 1996.

Other related empirical studies focus on the determinants of reincorporation decisions. Bebchuk and Cohen (2003) find that firms display substantial home-state preferences when incorporating and that anti-takeover protections are correlated with greater success in the (re)incorporation market both relative to a state's ability to retain local firms and attract out-of-state incorporations. Consistently, Subramanian (2002) finds that managers tend to migrate to (and are reluctant to migrate away from) states with more anti-takeover statutes. Barzuza and Smith (2014) document that firms incorporated in Nevada have a higher probability of restating their financial results, suggesting that managers who expect to misbehave may have incentives to

[5] Other views of interstate incorporation competition have appeared as well. Black (1990) has argued that a firm's incorporation decision is unimportant as corporate actors can eliminate differences among jurisdictions by contracting for customized governance arrangements. Bratton and McCahery (1995) and Carney (1998) have instead taken a middle-ground view and highlighted the importance of various constituencies in preserving Delaware's dominance, although not necessarily to the detriment of shareholders (Bratton and McCahery, 1995; Carney, 1998).

incorporate in states with laxer (i.e., more manager-oriented) corporate law standards such as Nevada.[6]

2.2. The Relation between Takeover Defenses and Firm Performance

How board insulation and anti-takeover measures, including antitakeover laws, affect firm value and performance has received much attention in the finance literature. Advocates of shareholder empowerment contend, both theoretically and empirically, that corporate measures that allow board insulation are undesirable as they exacerbate the risk of moral hazard by unconstrained managers (Manne, 1965) and may block value-increasing acquisition attempts (Easterbrook and Fischel, 1981; Grossman and Hart, 1980). The end result of adopting such measures would thus be a reduction in firm value (Gompers, Ishi, Metrick, 2003; Bebchuk, Cohen, and Ferrell, 2009). On the other hand, myopia studies derive the opposite theoretical prediction, suggesting that board insulation pressure might be beneficial to promote the undertaking of valuable longer-term investments and avoid instances of rational managerial myopia (Stein, 1988, 1989; Laffont and Tirole, 1988). Using the different argument that board insulation responds to the shareholder limited commitment problem, Cremers, Litov, and Sepe (2014) document that the adoption of a staggered board is associated with increased firm value over time, consistent with the hypothesis that staggered boards serve as an *ex-ante* commitment device towards longer-term value creation.

Other studies examine the relation between takeover defenses and specific investments, with a particular focus on firm innovation. This group of studies is likewise divided. Some studies conjecture that an increased takeover threat is beneficial to discipline managers and keep them focused on pursuing valuable innovations (Jensen and Ruback, 1983; Jensen 1988). Consistent with this prediction, Bertrand and Mullainathan (2003) empirically document that state antitakeover laws decrease shareholder monitoring and lead to a decline in overall productivity and profitability. Atanassov (2014) also finds a significant decline in the number of patents and citations per patent for firms incorporated in states that pass antitakeover laws relative to firms incorporated in states that do not. Similarly, Chakraborty, Rzakhanov, and Sheikh (2013) find that an increase in antitakeover provisions is negatively related to innovation.

[6] While Barzuza and Smith also examine reincorporations in Nevada (2014), their main focus is on incorporations, as the reincorporation part of their sample is very small.

Other studies, instead, draw on the well-established insights of hold-up theory (Klein, Crawford, and Alchian, 1978; Williamson 1979, 1985) to contend that the threat of managerial dismissal inherent in takeover pressure may deprive managers of the incentives to pursue specific investments and, in particular, innovation. Knoeber (1986) and Shleifer and Summers (1988) show theoretically that the adoption of anti-takeover measures may serve to incentivize managerial specific investments by committing the firm to a business strategy that cannot easily be reverted through a takeover. Manso (2011) and Fi (2012) also develop theoretical models showing that the pursuit of long-term objectives, such as investments in innovation, tends to imply poor short-term performance, calling for a policy of tolerance toward short-term managerial failure as a means to incentivize investments in innovation.

Empirically, Johnson, Karpoff, and Yi (2014) find that board insulation may serve as a bonding mechanism vis-à-vis key stakeholders in contexts where the likelihood of a takeover might have negative effects on a firm's long-term relationships with its customers, suppliers, and strategic partners. Cen, Dasgupta, and Sen (2013) find that the passage of antitakeover laws results in better operating performance for firms having long-term relationships with large customers. Finally, Baranchuck, Kieschnick, and Moussawi (2014) find that providing incumbents with more protection from early termination promotes incentives for innovation.

3. Data and Descriptive Statistics

3.1. Data and Descriptive Statistics

Our data sample as used in our main analysis consists of all publicly traded firms in the Compustat database of industrial firms between 1994 and 2012 with share codes 10 or 11 (excluding for example closed-end funds), which are headquartered in the United States, are not in regulated industries or the financial industry (removing firms with SIC codes between 4900 and 4943 and between 6000 and 6200), and have no missing data necessary to compute Tobin's Q or any of our standard controls (e.g., book value of assets, book value of common equity, equity market capitalization, book value of total debt, capital expenditures and book value of plant, property, and equipment).

Data on financial information and current incorporation state for our final sample are from the CRSP/Compustat merged database as available through WRDS. This database, however, does not provide historical incorporation information. Our historical incorporation data

comes from two other Compustat database. The first is the COMPHIST database with Compustat header history, with effective dates starting around 2007. This database is available on WRDS. The second source is the CSTHIST database, which contains header history from the legacy CRSP/Compustat merged database. The effective dates in the CSTHIS database start in 1994, and this database is not available on WRDS but was accessed directly from CRSP. As far as we could ascertain, our study is the first to use the historical incorporation information in the CSTHIST database. Our final basic sample consists of 10,880 firms and over 80,000 firm-year observations for 1994 - 2012.

Our analysis compares firms incorporated in Delaware (indicated by the dummy variable *DE*, set to one for firms incorporated in Delaware), insider-friendly "Managerial States" (as defined below, using the dummy variable *MS*, set to one for firms incorporated in a Managerial State), California (using the dummy *CA*), and using all other firms incorporated elsewhere as a control group. In selecting groups of U.S. states other than Delaware, we focus on Managerial States and California for two main reasons. First, Managerial States and California present the most significant variance in the adoption of antitakeover statutes imposing rules on bidders wishing to acquire target companies. This allows us to overcome the general objection that computing differences in state corporate laws is problematic given the substantial similarity of the various state corporate law regimes (Bebchuk, Cohen, and Ferrell, 2002).

Second, a main argument advanced by advocates of the race-to-the-top view to explain the success of Delaware in the incorporation race is that Delaware has among the mildest of antitakeover statutes (Daines, 2001; Romano, 2001). In selecting corporate law regimes that provide a substantially different alternative to Delaware, we thus opt for – at one end of the spectrum – California, which has adopted no anti-takeover statutes and is traditionally described as the jurisdiction with the most shareholder-friendly corporate regime (Subramanian, 2002; Jagannathan and Pritchard, 2011). At the other end of the spectrum, we select the group of Managerial States, which have the most restrictive antitakeover statutes and can hence be considered as relatively managerial-friendly.

Specifically, in order to determine how managerial-friendly a state is, we construct a state-level anti-takeover protection index (henceforth *State-ATP*-index) following Bebchuk and Cohen (2003). The *State-ATP* index attaches to each state a score from 0 to 6 depending on how

many out of the following six standard anti-takeover statutes that state has adopted:[7]

(1) *Control-Share-Acquisition Statutes*, which require the bidder to win approval of a majority of disinterested shares;

(2) *Fair-Price Statutes*, which require the bidder to pay a certain price for the remaining shares to prevent two-tier acquisitions with a low back-end;

(3) *3-Year Business Combination Statutes* (or "freeze-out" statutes), which prevent a bidder from engaging in a wide range of transactions with an acquired company (such as mergers, liquidations, and sales of assets) for three years after she has acquired a controlling stake, unless the target board approves the acquisition (Subramanian, 2002).[8] This moratorium makes hostile takeovers extremely difficult to pursue by preventing bidders from gaining access to the target's assets for the purpose of financing acquisition debt (see Atanassov, 2013; Bertrand and Mullainathan, 2003; Karpoff and Malatesta, 1989);

(4) *5-Year Business Combination Statutes*, which prohibit acquisitions by "interested shareholders" for up to five years, unless certain conditions are satisfied, making hostile takeovers extremely difficult if not impossible;[9]

(5) *Poison-Pill-Endorsement Statutes*, which explicitly authorize the use of poison pills; and

[7] We note that a limit of this methodology is that it does not take into account that state takeover regulation also consists of judge-made law. This additional body of state law is difficult to incorporate empirically, as its application tends to depend on case-specific circumstances.

[8] Specifically, the Delaware's business combination statute prohibits acquisitions by "interested shareholders" for up to three years, unless certain conditions are satisfied. An "interested shareholder" is any entity owning (directly or indirectly) at least 15% of the outstanding voting stock. A "business combination" is any merger or acquisition of corporate assets benefiting the interested shareholder. The conditions permitting a business combination without the 3-year window are as follows: (i) if the target's board approves the business combination or the asset sale to the interested shareholder, and (ii) after this transaction, the interested shareholder owns at least 85% of the target's outstanding shares. Alternatively, business combination can also be allowed within the 3-year window if the target's board approves the business combination and at least two-thirds of the target's voting shareholders approve as well.

[9] Any state with a 5-year Business Combination Statute are coded to also have a 3-year Business Combination Statute. Bebchuk and Cohen (2003) do not distinguish between 5- and 3-year Business Combination Statutes, which in our sample would result in a 5-level state index that has a 99% correlation with our 6-level state index. We note, however, that the difference between 3- and 5-year Business Combination Statutes is not only "quantitative," but also "qualitative." Indeed, the 5-year Business combination statutes tend to bar a larger number of transactions than the 3-year Business Combination statutes. For example, while the New York's 5-year business combination statute bars *any* substantial sale of assets or merger after the threshold is crossed without prior approval, the Delaware's 3-year statute defines the term ''business combination'' narrowly so as to cover only transactions between the target and the bidder or its affiliates. Further, the Delaware's 3-year Business Combination statute is a default provision, which makes it easier for firms to opt out of this anti-takeover measure.

(6) *Constituency Statutes*, which authorize the use of defensive tactics in the name of non-shareholder constituencies, such as employees or creditors.

Delaware only has a 3-year Business Combination Statute, and thus a *State-ATP*-index level of 1. As shown in Panel B of Table 1 with descriptive statistics, Delaware-incorporated firms constitute 60% of the sample.

Managerial States are defined as states with a *State-ATP*-index level of 5 or 6 and constitute about 23% of the sample. This group consists of 17 states, with the largest number of observations in New York, followed by (in order of the number of observations) Minnesota, Nevada, Pennsylvania, Ohio, Massachusetts, New Jersey, Georgia, Maryland, Wisconsin and Indiana (plus 6 other states with relatively few observations).

The remainder of the sample consists of 7 state with no state antitakeover provisions at all, including California (constituting 3% of the sample), 7 other states with a *State-ATP*-index level of 1 (primarily firms incorporated in Colorado and Texas, this group of 7 states jointly constituting 3% of the sample) and, finally, a group of 19 states with a *State-ATP*-index level of 2, 3 or 4.

Consistent with many prior studies investigating the relation between firm-level provisions and firm value (Demsetz and Lehn, 1985; Morck, Shleifer, and Vishny, 1988; Lang and Stultz, 1994; Yermack, 1996; Daines, 2001; and Gompers, Ishii, and Metrick, 2003), we measure firm value (i.e., the main dependent variable in our analysis) using Tobin's Q (*Q*), defined as the ratio of the market value of assets to the book value of assets at the end of the fiscal year (as in Fama and French, 1992) and using Compustat data. Following Daines (2001), in order to minimize the existence of a possible selection bias and sensitivity to outliers, we trim observations with Tobin's Q values in the upper and lower 5% of the sample.

Following the prior literature, we always include the following control variables (for which we provide brief definitions in Panel A of Table 1) using Compustat data: the log of the book value of total assets (*Log Assets*), book leverage as the ratio of the sum of total short-term and long-term debt over the book value of total assets (*Leverage*), the ratio of capital expenditures over the book value of total assets (*CAPX/Assets*), the ratio of research and development expenditures over the book value of total assets (*R&D/Assets*) plus a dummy for whether the firm is engaged in R&D and thus R&D expenditures are not missing (*Engaged in*

R&D), and finally the ratio of the book value of property, plant, and equipment over the book value of total assets (*PPE/Assets*).

In investigating the importance of the limited commitment problem as a channel through which state law affects firm value, we use the following four proxies: *Engaged in R&D*, *Large Customer, Relationship Industry*, and *Contract Specificity.* Following Johnson, Karpoff, and Yi (2014), we define *Large Customer* as a dummy variable set equal to one if the firm has at least one customer accounting for 10% or more of its sales, which we use a proxy for the importance of firm customers in creating financial value. This data comes from the Compustat Segments – Customer database available on WRDS. About 32% of firms in our sample have a *Large Customer*. The dummy *Relationship Industry* comes from Cremers, Nair, and Peyer (2008), who provide a list of 2-digit industries characterized by longer-term commitments between the firm and its stakeholders such as employees, suppliers, and customers. About 68% of the firms in our sample are in a *Relationship Industry* as defined by Cremers, Nair, and Peyer (2008). *Engaged in R&D*, *Large Customer*, and *Relationship Industry* are available for the full sample.

Following Nunn (2007), we also employ *Contract Specificity* as a proxy for relationship-specific investments. This data is at the industry level for 1997 and made available at Nunn's website.[10] Firms in industries with higher *Contract Specificity* use a higher fraction of inputs (i.e., products and services) that are not sold on an organized exchange or reference priced in a trade publication and for which the market thus appears less complete, rendering firm-specific relationships with suppliers more important. This variable is only available for about a quarter of the industries in our sample and set as missing otherwise.[11]

In investigating the tradeoff between managerial moral hazard and limited commitment problem, we employ two proxies, *M&A in Industry* and *5% Block Ownership*. *M&A in Industry* is the ratio of mergers & acquisitions' dollar volume in the SDC database to the total market capitalization from CRSP for the previous calendar year, calculated for each of the 49 Fama-

[10] See http://scholar.harvard.edu/nunn/pages/data-0.

[11] The four dummies for the importance of the limited commitment problem generally do not have high correlations with each other, with the exception of Contract Specificity and Relationship Industry, which have a rank correlation of 58%. However, it is still useful to keep both proxies, as Contract Specificity is only available for a subset of our sample but is based on more detailed information than Relationship Industry. The rank correlation between Engaged in R&D with Contract Specificity and Relationship Industry equals 35% and 11%, respectively, indicating industries engaged in research and development are more likely to be contract-specific and a bit more likely to be characterized by long-term relationships between the corporations and its stakeholders. The rank correlations between Large Customer and the other three proxies are positive but small (11% or lower).

French industries. The CRSP annual industry market capitalization is for ordinary stocks only and excludes ADRs and REITs, and we only include transactions in SDC where the buyer achieves control of the target. The variable *5% Block Ownership* contains the percentage of institutional block ownership, defined as the percentage of outstanding shares owned by institutions that each own at least 5% of outstanding shares. We construct *5% Block Ownership* by using the aggregated holdings in the 13F filings in the quarter of the firm's fiscal year, which we retrieve from Thomson as available on WRDS.

As a robustness check for the relative importance of managerial moral hazard, we also consider the propensity of the board to replace the CEO using the variables *CEO Turnover* and *Forced CEO Turnover.* We define *CEO Turnover* and *Forced CEO Turnover* as two dummy variables equal to one if, respectively, there was a voluntary CEO departure or the CEO was forced to leave office in the relevant observation year. Our source for both variables is the database as constructed in Jenter and Kanaan (2010) with data available only for a subset of firms in 1993 – 2001, with a total of 141 forced CEO turnovers and 894 total CEO replacements (out of a total of 1,669 firms in the sample). In the analysis of (in)voluntary CEO turnover, following Faleye (2007), our regressions control for *Abnormal Returns*, which is the fiscal year stock return minus the beta times the market return (estimated using daily stock returns), in addition to the standard controls described above.

In investigating the robustness of our hypothesis that state corporate law only matters when the limited commitment problem is relevant, we employ various firm-level governance indices – namely the *G-Index*, *E-Index*, *C-Index* and *I-Index* – and *Dual Class*. These variables are used in a separate sample with a longer time series but more limited cross-section, namely the 1978 – 2007 dataset that is also used in Cremers and Ferrell (2014). This dataset combines data for the largest 900 or so firms in 1978 – 1989 with the sample of around 1,500 large firms from RiskMetrics data in the period 1990 – 2007.

Dual Class is a dummy variable indicating whether or not the firm has dual class stock, i.e., unequal voting rights where a controlling shareholder can control the firm. The *G-Index*, introduced by Gompers, Ishii, and Metrick (2003), is a composite of twenty-four provisions that measure the strength of shareholders rights by adding one point if any of the provisions included in the index is present. Higher *G-Index* scores indicate weaker shareholder rights or a larger number of antitakeover measures. The *E-Index* is a subset of 6 provisions of the *G-Index*

(Bebchuk, Cohen and Ferrell, 2009) and designed to measure managerial entrenchment.

The *C-Index* and *I-Index* are two further sub-indices of the *E-Index* proposed by Cremers, Masconale and Sepe (2015). The *C-Index* (commitment index) consists of three "bilateral" board protection provisions that generally require shareholder approval (namely a staggered board and supermajority requirements to change the charter and to approve merger agreements). These provisions may bind shareholders towards a longer-term horizon by bilaterally protecting all stakeholders from short-term changes to the corporate strategy and financial policies, while leaving open the possibility of longer-term shareholder discipline. The *I-Index* (incumbent index) consists of three "unilateral" board protection provisions that incumbent boards can adopt without shareholder approval to gain insulation even from longer-term shareholder discipline (poison pills, golden parachutes, and supermajority requirements to change corporate bylaws).

Panel B of Table 1 presents descriptive statistics of all our variables for the 1994 – 2012 sample for all Compustat firms (consisting of about 10,800 firms and over 80,000 firm-year observations) as well as the 1978 – 2007 dataset from Cremers and Ferrell (2013) consisting of close to 1,877 firms and about 26,000 firm-year observations.[12] This smaller but longer sample is only used at the end of the paper; the shorter sample of all Compustat firms is our main sample and is used unless we explicitly mention this otherwise.

3.2. Incorporations and Re-incorporations

Figure 1, Panel A presents the percentage of firms by state of incorporation in our all-Compustat sample each year from 1994 to 2012. It quantifies the well-known fact that Delaware largely dominates the incorporation market, with the percentage of firms incorporated in the state having steadily increased from 1994 to 2012. In 1994, 54% of all publicly traded firms incorporated in Delaware, with its share of incorporations growing through the 1990s and 2000s until reaching a percentage of about 67% in 2012. Conversely, incorporations in Managerial States declined steadily throughout this time, from 26% in 1994 to 20% in 2012. California incorporation also steadily decreased from 4-5% in the 1990s to 2% in the late 2000s.

[12] For both samples, we require no missing information for these variables: state of incorporation, the book value of total assets, the market value of equity, the book value of equity, and the book value of total debt. For the 1994 – 2012 sample, we remove firms with more than one 'permno' in CRSP to avoid firms with dual class stock (it is possible that we still keep some firms with dual class stocks where only one of the classes is included in CRSP).

Figure 1, Panel B shows the percentage of firms by state of incorporation at the IPO each year from 1994 to 2012. Reporting evidence on IPO incorporation choices is important to understand how states fare in the corporate charter market, in addition to the reincorporation market for generally more mature firms. Consistent with prior studies (Daines and Klausner, 2001; Daines, 2001; Coates, 2001; Subramanian, 2002), we document that the breakdown by state of IPO incorporation is even more concentrated than the breakdown for mature firms, with Delaware's share continuing to increase: from 60% of IPO firms incorporating in Delaware in 1994 to more than 84% in 2012. Correspondently, the ratio of IPO firms incorporating in Managerial States has declined from 21% in 1994 to 10% in 2012. The ratio of IPO firms incorporating in California has declined from 3% in 1994 to below 1% in 2012.

Figure 1, Panel C focuses on the percentage of market capitalization by state of incorporation, showing that firms with larger market capitalization are more likely to be incorporated in Delaware, with a slowly growing percentage of 61% in 1994 and 68% in 2012. The share of firms incorporating in Managerial States weighted by market capitalization is in line with the equal-weighted incorporation percentages reported in Figure 1, Panel A. Figure 2 presents the annual numbers of reincorporations *into* Delaware, Managerial States, and California (in Panel A) and *out of* these jurisdictions (in Panel B) in the time period 1996-2011.[13] For reincorporations into Delaware and Managerial States (see Figure 2, Panel A), we observe substantial time variation. Delaware received 331 total reincorporations over this period, though with a substantial drop in the Delaware's market share among reincorporations in the late 2000s.

Migration into Managerial States presents a similar pattern, though the total number of reincorporations into these states is only 91 and thus significantly less frequent than reincorporations into Delaware. Across time, the highest annual number of reincorporations into Managerial States equals 14 in 2000. About 60% of the firms reincorporating into Managerial States were previously incorporated in Delaware. Among Managerial States, the most popular choices are Maryland, Nevada and Pennsylvania. In contrast, only three firms reincorporate into California over this period.

Figure 2, Panel B shows the numbers of reincorporations by the state firms reincorporate

[13] There are no firms for which the state of incorporation in our data is different in 1995 relative to 1994 or where it is different in 1996 relative to 1995. That means that for reincorporations, our data effectively starts in 1996.

out of. While we continue to observe substantial time variation, the patterns of migration *from* Delaware, Managerial States, and California seem more consistent than the patterns of migration *into* these states. The total number of firms leaving Delaware equals 92, and the number of firms leaving any of the Managerial States (and not reincorporating into another Managerial State) equals 156. Given the relatively low number of firms incorporated in California, the number of firms leaving California seems high at 118 over our time period.

Table 2 presents the reincorporation transition matrix for our sample of firms, showing the original state (group) of incorporation and destination state of incorporation for a total of 470 reincorporations over the period 1996-2011.[14] This allows us to take into account the existence of potential variations among states, unlike prior reincorporation studies that typically divide the incorporation market between Delaware and non-Delaware firms, lumping together all non-Delaware states. Delaware received a total of 331 out of 470 reincorporating firms, or about 70% market share among reincorporations – similar to Subramanian (2002), who finds a 56% Delaware market share among reincorporations.[15] Table 2 also shows that most reincorporations to Delaware were from Managerial States (133 reincorporations, or 40% of all firms reincorporating into Delaware and 28% of total reincorporations) and California (115 reincorporations, 35% of all reincorporations into Delaware and 24% of total reincorporations).

Managerial States received a total of 91 reincorporating firms, or about 19% market share among reincorporations, with most reincorporating firms being from Delaware (61, or 67% all of firms reincorporating into Managerial States and about 13% of total reincorporations). In contrast, California received only 3 reincorporating firms. Consistent with Subramanian (2002), we find that almost all firms (97%) leaving California reincorporated into Delaware, while presenting the highest number of migration away from a state (with 118 California firms reincorporating elsewhere or about 25% of total migrations away from a state). Thus, the most significant migration patterns in 1996-2011 were into Delaware and away from California, while reincorporations into and out of Managerial States tended to balance out.

4. Results

[14] As a comparison, Subramanian (2002) finds 373 reincorporations between 1991 and 2001.

[15] Earlier studies report even higher migration rates to Delaware, generally between 80% and 90% (Dodd and Leftwich, 1980; Kaouris, 1995; Romano, 1985).

4.1. Incorporation and Firm Value

This section examines the financial value of state corporate law by focusing on incorporation decisions. We first consider the cross-sectional association between firm value (as measured by Tobin's Q) and incorporation in Delaware and other U.S. states. After that, we examine possible self-selection effects.

4.1.1. Cross Sectional Analysis

Table 3, Panel A presents the results of the association between Tobin's Q and Delaware incorporation (*DE*) in the cross-section of firms, using pooled panel regressions and our full time period (1994-2012). Column (1) presents the results for a regression that only included *DE*, Column (2) adds year fixed effects, and Columns (3) through (9) control for both year and industry fixed effects at the 4-digit SIC level. In Columns (4) through (9), we add firm-level controls, namely *Log Assets, Leverage, CAPX/Assets, R&D/Assets*, *Engaged in R&D, PPE/Assets*. In Column (5), we also add fixed effects for the state where the firm's headquarters are located. Throughout the paper, the robust standard errors are clustered by firm.

The results in Column (1) show that with no controls or fixed effects at all, firms incorporated in Delaware have, on average, a 8.38% (=16.5% coefficient divided by the average Q of 1.97) higher Tobin's Q than firms incorporated outside of Delaware (t-statistic of 7.22). Controlling for year fixed effects in Column (2) makes little difference, but once we also control for industry fixed effects in Column (3), the difference between the Tobin's Q of firms incorporated in Delaware relative to firms incorporated in other states becomes much smaller at 1.80% (=3.54%/1.97) and only marginally statistically significant with a t-statistic of 1.77. Adding firm-level controls in Column (4) further reduces the *DE* coefficient and renders it statistically insignificant with a t-stat of 0.89. Controlling for the state where the firm's headquarters are located, in Column (5), makes little difference.

Next, we confirm previous results on a disappearing positive Delaware effect (Subramanian, 2004; Bebchuk and Cohen, 2003) by adding the interaction of *DE* and a dummy that is equal to one in the second half of our sample (i.e., after 2001). As shown by Column (6), the coefficient for Delaware incorporation is positive and statistically significant during 1994-2001 (*DE* coefficient of 6.45% with a t-statistic of 2.71). Conversely, as indicated by the coefficient on the interaction of *DE* and the 2002-2012 dummy of -10.2% (t-statistic of 3.62), firm value and Delaware incorporation appears to be negatively associated after 2001. As these

cross-sectional differences are likely driven by changing self-selection effects, we do not investigate these further, only showing these to confirm previous literature.

In Column (7) and (8), we examine the association of firm value with incorporation in a Managerial State and California. Column (7) shows that incorporation in a Managerial State has an insignificant association with firm value. Conversely, incorporation in California is associated with a firm value that is about 8.98% (=0.177/1.97) higher. However, Column (8) shows that the higher value of firms incorporated in California is completely driven by the pre-2002 period, suggesting that systematic differences between California firms and firms incorporated elsewhere during the 1990s explain the higher financial value of Californian firms in those years, rather than the purported benefits of California law.[16]

Finally, as prior studies suggest that firms are more likely to remain in their headquarters' state if the state has certain antitakeover statutes (Subramanian, 2002; Bebchuk and Cohen, 2003), we create a dummy *Incorp=Headq* that is equal to one for firms that are incorporated in the same state as where their headquarters are located. Across firms incorporated in Delaware, only 0.5% of firms also have their corporate headquarters in Delaware. On the other extreme, firms incorporated in California almost always have their corporate headquarters in California (96%). However, for Managerial States there is significant variation, with 65% of firms incorporated in a Managerial State also having their headquarters in that state. Consequently, it is only for firms incorporated in a Managerial State that we can consider whether the dummy *Incorp=Headq* matters. In Column (9), we add the interaction of incorporation in a Managerial State and being incorporated in the state where the corporate headquarters are located, plus the *Incorp=Headq* dummy itself, finding that both are insignificant.

4.1.2 Selection Effects and Plausibly Exogenous Variation in Delaware Incorporation

In this section we consider possible self-selection effects by separately examining the value of corporate law for incorporations at the IPO stage, as such effects are likely to be different for firms at the IPO stage than more mature firms (Daines, 2001). For example, Veasey and Di Guglielmo (2005) and Kamar (1998) argue that some IPO firms may prefer Delaware

[16] The higher value of California incorporation coincides with the information technology 'bubble' of the 1990s (ending with the Nasdaq crash in 2001), when technology firms – many of which were incorporated in California – were particularly highly valued. Specifically, the California coefficient equals 0.313 for 1994-2001 and 0.036 in the second part of our time period (i.e., the sum of coefficients of CA and its interaction with a dummy for 2002-2012), which is statistically insignificant.

incorporation because of the relatively flexible nature of Delaware law, which makes it more contractible than the mandatory statutory provisions of other states.

In order to separately examine IPO firms, we consider an 'IPO sample' that consists of firms whose IPO falls in our overall sample. We have 3,312 firm IPOs with all required data in our sample, with an average Tobin's Q in this sample of 2.24. This IPO sample contains 158 reincorporations, including 113 firms reincorporating into Delaware and 36 out of Delaware, for which we present pooled panel Q regressions results in Table 4.

Column (1) of Table 4 shows that in the cross-section (i.e., with industry fixed effects), the *DE* coefficient equals -1.05% with a t-stat of 0.25, indicating that the value of firms incorporated in Delaware is on average similar to that of other firms in our IPO sample. Column (2) adds the dummy *DE@IPO*, which equals one if the firm was incorporated in Delaware at the IPO and is still incorporated in Delaware, resulting in a *DE* coefficient equal to -24.6% (t-statistic of 3.01) and a *DE@IPO* coefficient of 25.2% (t-statistic of 3.23). This result has a twofold implication. On the one hand, it suggests that firms that are incorporated in Delaware at the IPO and remain incorporated in Delaware have a firm value that is no different from other firms, as summing up the *DE* and *DE@IPO* coefficients gives a small positive coefficient of 0.6% that is statistically insignificant. This suggests that self-selection at the IPO stage does not seem to be related to a firm's (anticipated) financial value after the IPO.[17]

On the other hand, firms that did not incorporate in Delaware at the IPO but are now incorporated in Delaware have on average 11.2% lower (=24.6%/2.2, with a t-statistic of 3.01) value of *Q*. This suggests that corporate law has a different association with financial values for firms reincorporating after the IPO. Hence, (re)incorporations may have different motivations than incorporations at the IPO stage with different self-selection effects (see further Section 4.2).

Next, we employ plausibly exogenous variation in the firm's tendency to incorporate in Delaware at the IPO stage from the identity of the law firm advising the IPO firm. This instrument was suggested by Coates (2001) and adopted by Johnson, Karpoff, and Yi (2014), who find that the law firm identity helps explain firm-level takeover defenses at the IPO.

[17] While we obviously do not observe the Tobin's Q before the IPO, logit regressions of the likelihood to incorporate in Delaware at the IPO on the level of Q at the first fiscal-year end following the IPO (adjusted or not for industry) plus standard controls also result in an insignificant coefficient for financial value, as shown in Columns (1) and (2) of Appendix Table A.1.

Specifically, they argue that the law firm identity provides a good instrument for the adoption of antitakeover provisions in firm charters and bylaws at the IPO, as "IPO firms tend to choose their lawyers well before the IPO. This implies that law firm identity and characteristics meet both relevance and exclusion criteria as instruments for the number of takeover defenses." (Johnson, Karpoff, and Yi, 2014, at page 309).

Similarly, law firm identity may generate plausibly exogenous variation in the chosen state of incorporation at the IPO. Different law firms differ in their tendency to recommend incorporation of IPO firms in Delaware, controlling for other firm characteristics. As a result, if an IPO firm chooses a law firm that generally advises firms to incorporate in Delaware and then the firm indeed incorporates in Delaware, such firm seems especially likely to incorporate in Delaware due to their law firm's general policy rather than firm-specific circumstances.

The hand-collected data of the law firm identity at the IPO as used in Johnson, Karpoff, and Yi (2014) is available for 1,168 IPOs in our sample, out of which 74% incorporates in Delaware at the IPO.[18] However, we observe considerable variation in the propensity to incorporate in Delaware depending on the law firm identity. In general, law firms handling more IPOs tend to be more likely to advise IPO firms incorporated in Delaware.[19]

We estimate the probability to incorporate into Delaware depending on the law firm ($P(DE_{Law\ Firm\ @\ IPO})$) by regressing the Delaware dummy on our basic controls plus law firm fixed effects, using the information available at the end of the firm's first fiscal year after the IPO. The variable $P(DE_{Law\ Firm\ @\ IPO})$ has a mean of 74% and a standard deviation of 31%. The correlation between $P(DE_{Law\ Firm\ @\ IPO})$ and the log of the number of IPO firms advised by the firm's law firm equals 25%. An important caveat is that many law firms advise only a few IPO firms, for which firms our estimates of $P(DE_{Law\ Firm\ @\ IPO})$ may be quite imprecise. For example, out of the 1,168 IPO firms, 166 firms (14%) use a unique law firm, 120 firms (10%) use a law firm that only one other IPO firm also uses, and 57 firms (5%) use a law firm also used by only two other IPO firms. Therefore, we conduct two robustness checks. First, we control for the log of the number

[18] We thank Johnson, Karpoff, and Yi for making their data available to us.

[19] For example, out of the 109 IPO firms advised by the law firm Wilson, Sonsini, Goodrich and Rosati (the most popular law firm), 84% incorporated in Delaware, and out of the 60 IPO firms advised by the law firm Cooley, Godward, Castro, Huddleson & Tatum (the second-most popular law firm), 93% incorporate in Delaware.

of IPO firms advised by the firm's law firm, and second, we consider the results in a subsample of firms using a law firm that advises at least 4 IPO firms in our sample.

In Column (3) through (8) of Table 4, we present the results of pooled panel Q regressions using the sample for which the identity of the IPO law firm is available, using the standard set of controls with year and industry fixed effects throughout. Column (3) shows that in this sample, firms incorporated in Delaware have a similar value as firms incorporated elsewhere. Column (5) shows that the interaction of the Delaware dummy with $P(DE_{Law\ Firm\ @\ IPO})$ equals -0.717 with a t-statistic of 2.75, while $P(DE_{Law\ Firm\ @\ IPO})$ by itself has a coefficient of 0.504. Economically, that means that a one standard deviation increase in $P(DE_{Law\ Firm\ @\ IPO})$ (of 31%) is associated with a 3% (= [-0.717+0.504]*0.31, divided by the average Q in the sample of 2.2) lower firm value if the firm incorporates in Delaware at the IPO stage. In other words, Delaware incorporation seems negatively related to financial value in the case of IPO firms for which Delaware incorporation is likely due to their law firm's general policy. Column (6) shows that this result is robust to only considering firms whose law firm advises at least 4 IPO firms in our sample, while Columns (7) and (8) further show that the results are robust to controlling for the number of IPO firms advised by the firm's law firm.

4.2. Reincorporation and Firm Value

Our dataset for a large cross-section of firms from 1994 to 2012 contains many changes in firm reincorporations, i.e., original states of incorporation and destination states of incorporation. This allows us to perform a time series analysis, in addition to a cross-sectional analysis, of the association between firm value (as measured by Tobin's Q) and (re)incorporation, both *in* and *out of* Delaware and other U.S. states. Hence, the main empirical contribution of this section is the time series association between firm incorporation and firm value using pooled panel Tobin's Q regressions with firm fixed effects that is identified using reincorporations, as well as changes in *Q* regressions on changes in the state of (re)incorporation. Additionally, we try to predict which firms are more likely to (re)incorporate into Delaware, in order to reconcile our cross-sectional and time series evidence and consider reverse causality.

4.2.1 Firm Fixed Effects Pooled Panel Q Regressions

In Table 5, we consider the time series evidence for the association between corporate law and firm value in pooled panel Q regressions on the state of incorporation using firm fixed effects, which effectively allows us to compare the average firm value before versus after

reincorporation. Adding firm fixed effects controls for any firm characteristic that is time invariant and hence reduces the potential bias resulting from unobserved firm heterogeneity and mitigates related endogeneity concerns (at least relative to the cross-sectional results).

Our main finding, shown in Column (1), is that Delaware reincorporation has a strongly negative association with firm value, at a statistically and economically significant level. Specifically, reincorporation into (out of) Delaware is associated with a decrease (increase) in Tobin's Q of 12% (=0.245/1.97, with a t-statistic of 4.21). This result captures both the decreased value of firms after they reincorporate *into* Delaware and the increased value of firms after they reincorporate *out of* Delaware, and is henceforth referred to as the "Delaware reincorporation effect."

In Column (2) we disentangle the change in firm value for firms reincorporating into versus out of Delaware by adding the dummy *DE * Out of DE* (which equals one for firms initially incorporated in Delaware that reincorporated out of Delaware in our sample). As we find that the coefficient of *DE * Out of DE* is insignificant (with a t-statistic of 1.36), the decrease in firm value for firms reincorporating into Delaware is statistically similar to the increase in firm value for firms reincorporating out of Delaware. Overall, these results suggests that firms reincorporating into Delaware experience a remarkably large decrease in firm value, while firms leaving Delaware experience an equally remarkable increase in Tobin's Q.

In Column (3) through (8) of Table 4, we show that the negative Delaware reincorporation effect is related to state corporate law, as proxied by the State Antitakeover Protection Index (*State-ATP Index*). First, Column (3) shows that reincorporation in other states with a *State-ATP Index* level of one (like Delaware) is also negatively associated with firm value, with a coefficient that is quite similar to the Delaware coefficient in Column (1). The coefficient is statistically insignificant though, which may not be surprising given the very limited number of reincorporations into and out of these states (29 in total).

Second, Column (4) shows that reincorporation into states with a medium *State-ATP Index* level between 2 and 4 is not associated with firm value, as indicated by the coefficient of 0.0066 with a t-statistic of 0.06.

Third, Column (5) shows that reincorporation in Managerial States (i.e., states with a high *State-ATP Index* level of 5 or 6) has a substantial economically and statistically significant

positive association with firm value. Specifically, reincorporation into these states is associated with an increase in Tobin's Q of 8.78% (=0.173/1.97, with a t-statistic of 2.50). This shows that firm value tends to increase substantially after firms reincorporate into a Managerial State, and likewise decreases on average after firms reincorporate out of a Managerial State. Column (6) shows that the increase in value for firms reincorporating into a Managerial State is on average similar to the decrease in value upon reincorporating out of a Managerial State, as the coefficient on *MS * Out of MS* is statistically insignificant with a t-statistic of 0.44.[20]

4.2.2 Change in Q Regressions

In Table 6, we further investigate the time series dimension of the association between firm value and reincorporation using changes in Tobin's Q (i.e., *ΔQ*) in the next 1, 2, 3 and 4 years after reincorporation. In panel A, we consider changes in valuations after firms reincorporate into *Delaware* (*ΔDE * Into DE*) and out of it (*ΔDE * Out of DE*). (For example, *ΔDE * Into DE* equals 1 in the first year after the firm reincorporates into Delaware, and equals 0 otherwise.) In Panel B, we consider changes in valuations after firms reincorporate into one of the Managerial States *(ΔMS * Into MS*) and out of it (*ΔMS * Out of MS*). In both panels, we control for the industry-wide movements – by adjusting the Tobin's Q by the median *Q* of all firms in the same industry that year – and for market-wide changes by adding year fixed effects.

Starting with Panel A of Table 6, Columns (1) through (4) examine reincorporations into Delaware, while Columns (5) through (8) examine reincorporations out of Delaware. These pooled panel regressions of changes in firm value on changes in Delaware incorporation confirm that firm value, as proxied by Tobin's Q, decreases following a firm's decision to reincorporate

[20] Column (7) shows that reincorporation in California also has a substantial economically and statistically significant positive association with firm value. However, as almost all reincorporations of California firms concern firms leaving California for Delaware (see Table 2), what appears as a positive California effect seems a reflection of the negative Delaware reincorporation effect. As discussed in subsection 3.2 above, Table 2 documents that over the period 1996-2011 California received only 3 reincorporating firms, while it experienced the highest number of migrations away from a state. Specifically, 118 California firms reincorporated elsewhere during 1996-2011, with 115 out of those 118 firms reincorporating into Delaware. Given these reincorporation patterns, the higher financial value we document for California firms seems fully attributable to the decrease in firm value after reincorporation out of California and into Delaware, rather than to a value-enhancing effect of California law. Statistically, there is insufficient data to separately estimate the change in value associated with reincorporations into or out of California that do not involve firms that are incorporated in Delaware before or after this change. Hence, in the remainder of the paper we will focus on examining the effect on firm value of (re)incorporations into and out of Delaware and Managerial States. We also test whether in *Q* changes associated with reincorporations into/out of Delaware, the Managerial States and California are different in the second part of our sample, and find no statistically significant differences.

into Delaware and increases following a firm's decision to reincorporate out of Delaware. Specifically, reincorporation into Delaware is associated with a decrease in Tobin's Q of 5.3% (=-0.105/1.97 with a t-statistic of 1.35, see Column 1) in the year after reincorporation and a decrease of 14% (=-0.282/1.97 with a t-statistic of 2.35, see Column 4) in Tobin's Q in the fourth year after reincorporation. These results suggest that the change in firm value surrounding reincorporation into Delaware needs several years to take effect, as indicated by the weaker economic and statistical results in Column (1) and (2).

Similarly, the change in firm value surrounding reincorporation out of Delaware is increasing over time, as indicated by the results of Column (5) through (8). Specifically, reincorporation out of Delaware is associated with an increase in Tobin's Q of 6.6% (=0.131/1.97 with a t-statistic of 1.91, see Column 5) in the year after reincorporation and an increase of 12% (=0.230/1.97 with a t-statistic of 2.28, see Column 8) in Tobin's Q in the fourth year after reincorporation.

Next, in Panel B of Table 6, Columns (1) – (4) examine reincorporations into the group of Managerial States, and Columns (5) – (8) reincorporations out of the group of Managerial States. These pooled panel regressions of changes in firm value on changes in Managerial States incorporation confirm that firm value, as proxied by Tobin's Q, increases (decreases) following a firm's decision to reincorporate into (out of) a Managerial State. The results for reincorporations into the Managerial States are monotonically increasing over time, as indicated by the strong economically and statistically significant results of Column (1) – (4). Specifically, reincorporation into a Managerial State is associated with an increase in Tobin's Q of 21.8% (t-stat of 3.16, see Column 1) in the year after reincorporation and a 35.1% (t-stat of 3.32, see Column 4) Tobin's Q increase in the fourth year after reincorporation. The results for incorporation out of Managerial States are consistent as Columns (5) through (8) show that leaving a Managerial State is associated with a decrease in firm value. This effect is monotonically increasing over time, becoming statistically significant after three years.

4.2.3. Reincorporation Decisions: Reverse Causality and the M&A Channel

In this section, we consider two possible self-selection explanations of our reincorporation results that firm value tends to drop (increase) if firms reincorporate into (out of) Delaware and tends to increase (drop) if firms reincorporate into (out of) one of the Managerial States (with no association with firm value for reincorporations into or out of states with a

medium number of state antitakeover protections): reverse causality and the M&A channel.

The reverse causality explanation would hold that firms that currently have a relatively high value but anticipate a lower value in the future tend to be more likely to reincorporate into Delaware, while firms with current low values anticipating higher future values tend to be more likely to reincorporate into a Managerial State. The M&A channel explanation would hold that firms may reincorporate in order to facilitate or avoid a future takeover. For example, consistent with the entrenchment view of state corporate law, the drop in value after firms reincorporate into Delaware may potentially be due to a lower likelihood to be taken over after reincorporation. Similarly, the increase in value after firms reincorporate into a Managerial State could potentially be explained by such firms being likely takeover targets whose effort to avoid a takeover by reincorporating elsewhere is on average unsuccessful (or whose strategy to increase the takeover premium by reincorporating into a Managerial State is successful).

We consider the reverse causality explanation in Appendix Table A.1, where we run Cox proportional hazard regressions of the likelihood to reincorporate into and out of Delaware, including the standard controls. The table presents the marginal effects of all the included variables. In Column (1), we consider the subsample of firms incorporated outside of Delaware, and their decision to reincorporate into Delaware. We find that the financial value before reincorporation is not associated with the decision to reincorporate, as the Q coefficient has a marginal effect of 7.6% that is statistically insignificant (t-statistic of 1.21). In Column (2), we consider the subsample of firms incorporated in Delaware and their decision to reincorporate out of Delaware. We again find that this decision does not seem related to their financial value when still incorporated in Delaware, as the Q coefficient has a marginal effect of -6.3% that is again statistically insignificant (t-statistic of 1.31).

Next, we consider the M&A channel. We start by examining how the state of incorporation is associated with the likelihood of receiving a takeover bid. Merging our data sample with SDC, we have 4,294 announcements of complete mergers (i.e., acquisition of a majority of the shares of the target), out of which 3,733 are completed. We will focus on the latter, though our results are robust to using announced rather than completed mergers.

Panel A of Table 7 presents the marginal likelihoods of Cox proportional hazard regressions of the likelihood to be taken in the next fiscal year on different states of incorporation and other firm characteristics at the end of the current fiscal year end. As controls, our model

specification incorporates variables that have been used in the prior literature seeking to explain the probability of takeover (Hasbrouck, 1985; Palepu, 1986; Ambrose and Megginson, 1992; Cremers, Nair and John, 2008), including the value of the firm's assets as proxied by Tobin's Q, the size of the assets, leverage, capital expenditures, R&D, tangibles (book value of plant, property and equipment over all assets), institutional ownership, and the percentage owned by institutional block-owners each holdings at least 5% of outstanding shares.

Column (1) shows that lower valued, smaller, and more research-intensive firms are more likely to be taken over, as well as firms with more intangibles, more institutional owners and more institutional block-owners. These results are in line with the existing literature. Economically and statistically, the strongest predictor for becoming a target is the current Tobin's Q, with a one-standard deviation shock decrease in Tobin's Q (equal to 1.38) being associated with an increase in the marginal likelihood to be acquired of 40% (=0.288*1.38). More importantly for our discussion, we find that the state of incorporation is unrelated to the acquisition likelihood, as the dummies for Delaware, Managerial States and California are all statistically insignificant.

In Column (2), we add the interaction of the Delaware dummy with a dummy that equals one if the firm reincorporates into Delaware after their IPO (*Into DE*), and zero otherwise. This interaction has a large positive and statistically significant coefficient of 0.402 (with a t-statistic of 2.52), indicating that firms that reincorporate into Delaware have about 40% higher likelihood to be acquired than other firms. This suggests that firms reincorporating into Delaware may do so in order to facilitate a takeover.

If this self-selection story is true, we would expect that the increased takeover likelihood for firms reincorporating into Delaware is especially pronounced for firms that were previously incorporated in states with less takeover-friendly legal environments. This intuition is confirmed by the data in Column (3). Here, we interact the Delaware dummy separately with three other dummies, each an indicator for firms reincorporating into Delaware from a different legal environment: firms entering Delaware from a state with a moderate level of takeover-friendliness (*Into DE x From Medium State-ATP*), a Managerial State (*Into DE x From MS*), and California (*Into DE x CA*). We find that firms reincorporating into Delaware only have a statistically significantly increased takeover likelihood if they were previously incorporated in a Managerial State (a state with *State-ATP Index* levels of 5 or 6). According to the estimate marginal

likelihood, such firms have a 55% higher probability to be taken over. Firms reincorporating into Delaware from California have a similar positive marginal likelihood, although statistically less significant. This seems to suggest that California corporate law is less takeover-friendly than Delaware law.

If firms originally incorporated in a relatively takeover-unfriendly Managerial State reincorporate into Delaware in order to facilitate a takeover, then this could suggest that firms that leave Delaware to reincorporate into a Managerial State may do so in order to avoid a takeover. This prediction is confirmed in Column (4), where we interact dummies for being incorporated in a state with a medium number of state antitakeover protections (i.e., a state with *State-ATP Index* levels of 2 – 4) and, separately, for being incorporated in a Managerial State (i.e., a state with *State-ATP Index* levels of 5 or 6), with a dummy that indicates that the firm reincorporated to this new legal environment in general, and with a dummy indicating that the firm reincorporated from Delaware (*Out of DE*) in particular.

We find that the likelihood to become a target does not change for firms that reincorporate into a state with a medium number of state antitakeover protections, irrespective of whether the firm was previously incorporated in Delaware or not. This result combined with the result in Column (3) is consistent with the takeover friendliness of Delaware and states with a medium number of antitakeover protections being similar. In contrast, firms reincorporating into a Managerial State are extremely unlikely to be acquired, but only if they reincorporated from Delaware, as shown by the large positive and strongly statistically significant coefficient of the interaction *MS x Out of DE* and the small and insignificant coefficient of the interaction *MS x Into MS*.

These results have two important implications. First, they suggest that the takeover channel is likely an important driver of reincorporations, although for reasons that appear inconsistent with the entrenchment view of state corporate law, under which the negative Delaware effect could be explained by Delaware law reducing the likelihood of future takeovers. In contrast to this explanation, our results suggest that firms that want to facilitate a takeover reincorporate into Delaware. Conversely, firms that want to avoid a takeover leave Delaware and reincorporate into a Managerial State. This self-selection is also evident from the number of acquisitions of firms that reincorporate depending on their destination. In particular, out of the 331 firms that reincorporate into Delaware in our sample, 97 (or 29%) received a takeover bid,

while only 6 out of the 91 firms (7%) in our sample that reincorporated into managerial-friendly states received a takeover bid. More importantly, *none* of the 61 firms leaving Delaware to reincorporate into a Managerial State are taken over in our sample, while 39 out of 133 firms (29%) leaving a Managerial State to reincorporate into Delaware are taken over.

Second, the acquisition likelihood results pertain to the legal debate on the relative takeover-friendliness of Delaware. While we do not have exogenous variation in reincorporations, our new evidence that the takeover channel provides an important possible motivation for reincorporation decisions still sheds novel light on this debate. In other words, this evidence remains significant for that debate even if one assumes that our takeover likelihood results are completely driven by self-selection (with firms that are likely takeover candidates and want to be taken over deciding to reincorporate into Delaware and firms that are likely takeover candidates and do not want to be taken over deciding to reincorporate into a Managerial State). Indeed, even assuming this self-selection effect, we can still conclude empirically that firms (and their shareholders) generally view Delaware as a *relatively* takeover-friendly environment, which in practice helps to facilitate a takeover. Conversely, firms seem to generally view the group of Managerial States as providing an environment where it is easier to gain protection against any unwanted takeover attempts, with this *ex-ante* view being generally consistent with the subsequent *ex-post* rates of takeovers after reincorporation.

4.2.4 Robustness after incorporating takeover premiums

The changes to takeover likelihood after reincorporations raise two potential concerns. First, any valuation effects from a changing takeover likelihood could be potentially offset by changing takeover premiums, at least in expectation. We thus test whether an increased likelihood of being acquired upon reincorporation into Delaware from a Managerial State is offset by a lower takeover premium, which would potentially explain why on average Delaware reincorporation is associated with lower firm value.[21] Second, the takeover channel may raise concerns about the robustness of our earlier results, which use firm valuations at the fiscal-year end (as is standard in this literature), which never incorporates the takeover premium paid during

[21] On the other hand, a decreased likelihood of being acquired after moving from Delaware to a Managerial State may be done in order to improve the firm's bargaining position in order to get a higher takeover premium, which could potentially explain why reincorporating in a Managerial State seems to add value. We cannot test this because no firm leaving Delaware to reincorporate in a Managerial State is taken over in our sample.

the fiscal year in which the firm is acquired and subsequently delists.

We consider the first concern in Panel B of Table 7, which regresses the one-week takeover premium on the same set of variables considered in Panel A of Table 7. The one-week takeover premium is calculated as the percentage change in the target's stock price from one week before the announced takeover to the announced takeover price. We can calculate the one-week takeover premium for 4,294 announced takeovers, out of which 3,733 are eventually completed. Panel B shows results for the sample of completed takeovers only, but results using the full sample of announced takeovers are quite similar. For this sample, the average takeover premium equals 36.7% with a standard deviation of 28.5% (for the sample of all announced takeover attempts, the average equals 36.8% with a standard deviation of 28.7%).

We find in Column (1) that the average takeover premium is 5.60% higher (with a t-statistic of 2.64) for firms incorporated in states with a medium number of state antitakeover protections (*State-ATP* level of 2 – 4), and is 6.75% higher (with a t-statistic of 2.44) in the Managerial States. Delaware incorporation does not have a significant association with the takeover premium. Furthermore, Column (2) shows that firms reincorporating into Delaware do not have a statistically significantly different takeover premium, as the interaction *DE x Into DE* has a coefficient of -1.52% with a t-statistic of 0.57. Column (3) provides some statistically weak but economically meaningful evidence that firms leaving a Managerial State to incorporate into Delaware have a higher, not lower, takeover premium, though the positive coefficient of 6.45% has a t-statistic of only 1.39 (or an associated p-value of 18%). This shows that the increased takeover likelihood for such reincorporations is not offset by a lower takeover premium.

Columns (4) through (7) show that the takeover premium of firms reincorporating into a Managerial State is not statistically different. As none of the firms leaving Delaware to reincorporate into a Managerial State are taken over, we cannot separately estimate the takeover premium for those. We also find that firms that reincorporate into a state with a medium number of state antitakeover protections (*State-ATP Level of 2 – 4*) receive a substantially higher takeover premium, but only if they leave Delaware (with a *State-ATP Level* of 1*)* rather than a state with more antitakeover protections, as *State-ATP Level of 2 – 4 x Out of DE* has a coefficient of 17.3% and a t-statistic of 15.75 in Column (6). This suggests that the higher level of takeover defenses in these states (relative to Delaware) may provide boards with a substantially improved bargaining position in a takeover attempt, without on average

jeopardizing the takeover likelihood itself (as shown in Panel A of Table 7). These results further suggest that the Managerial States are different in that firms seem to choose their legal environment not to improve the bargaining position in a takeover attempt, but to forestall such an attempt in the first place.

Next, we check the robustness of our earlier reincorporation results if we replace the firm's Tobin's Q at the end of the firm's last fiscal-year end before delisting with the Tobin's Q that incorporates the delisting price (henceforth called $Q_{delisting\text{-}price}$), thereby including any takeover premium paid during the next fiscal year in which the firm is acquired and subsequently delists). These robustness results are all shown in the appendix in order to save space, with Appendix Table A.2 showing results analogous to Table 4 using $Q_{delisting\text{-}price}$, and Appendix Tables A.3 and A.4 showing results analogous to Panels A and B, respectively, of Table 6. As shown in the Appendix, we find that our results are robust to incorporating the delisting price in the Tobin's Q.

4.3. The Twin Agency Problems

Our main new findings are that reincorporation into (out of) Delaware is associated with a substantial reduction (increase) in firm value and that reincorporation into (out of) Managerial States is, on the contrary, associated to an increase (reduction) in firm value. We further found that reincorporation into (out of) Delaware from (into) a Managerial State is strongly associated with an increased (decreased) likelihood to be taken over after reincorporation. These findings cast a doubt on both the race-to-the-top and the race-to-the-bottom views of interstate competition for corporate charters, to the extent that both views exclusively focus on managerial moral hazard as the channel through which state corporate law affects firm value.

The race-to-the-top argument claims that Delaware has won the incorporation race by offering value-increasing laws that effectively curb managerial moral hazard, which is inconsistent with the negative Delaware effect we document in both the cross-section (using plausibly exogenous variation of Delaware incorporation at the IPO stage) and the time series. Conversely, the race-to-the-bottom argument claims that interstate competition induces states to adopt value-decreasing pro-management rules in order to attract more incorporations, so that the high level of state antitakeover provisions in the Managerial States is attractive to managers but not to shareholders. However, our results suggest that (even if endogenous) both managers and

shareholders may benefit from reincorporating out of Delaware and into a Managerial State, given the subsequent decrease in takeover likelihood and increase in firm value.

In this sub-section, we explore whether an approach that considers the twin agency problems of moral hazard and limited shareholder commitment – rather than solely the former problem – may solve the apparent puzzle posed by our results, providing a novel explanation to how a state's corporate law affects firm value. As explained earlier, the limited commitment problem arises out of the ability of shareholders to sell their shares in public markets in the short-term, increasing the likelihood of a future change in control and/or investment policy and making shareholders unable to firmly commit to longer-term strategies. This may cause other stakeholders to increase the cost of their performance or reduce the level of their investments and efforts, with the result over time being a decline in the value created by the firm. (Cremers, Litov, and Sepe, 2014). Accordingly, the corporate law of Managerial States – with weaker shareholder rights and less takeover pressure on directors – might be better suited at constraining the limited commitment problem than jurisdictions, like Delaware, with milder anti-takeover laws and an increased likelihood of future changes in control and investment policy. On the other hand, as Managerial States insulate boards from shareholder and market pressure, they could exacerbate the problem of managerial moral hazard relative to Delaware. This analysis suggests that the choice of the level of shareholder rights and exposure to the market for corporate control may involve a tradeoff between these twin agency problems (see also Kadhyrzanova and Rhodes-Kropf, 2011).

Viewed through this lens, our results documenting a negative cross-sectional association between Delaware incorporation and firm value (through the use of plausibly exogenous variation in Delaware incorporation at the IPO stage) would seem to indicate that the risk of increased managerial moral hazard to which these firms are exposed is more than compensated by the benefits accruing from more strongly committing all stakeholders to long-term firm value. Our time-series evidence also seems consistent with this explanation, as the gradual increase in firm value after reincorporation into a Managerial State is consistent with the hypothesis that the limited commitment problem is the first-order information problem for the firms reincorporating.

Nevertheless, our time series results need to be interpreted with particular caution, as reincorporations are endogenous choices and our takeover likelihood results strongly suggest that self-selection is important. To address these concerns, we use the reincorporation results to

further examine whether reducing managerial moral hazard versus creating longer-term commitments is the channel through which Delaware law may negatively impact corporate value relative to the corporate law of Managerial States. In particular, we test the respective importance of these problems and possible tradeoffs using a variety of firm-level proxies to identify firms where moral hazard or limited commitment seems especially relevant. We also try to further mitigate endogeneity concerns by focusing on industry-level proxies or proxies for firm-level characteristics that seem less at the discretion of management.

We also note, however, that while self-selection, particularly related to takeovers, is likely to be critically important for reincorporation decisions, plausible self-selection stories seem inconsistent with the entrenchment view of state corporate law. This view holds that re-incorporating into managerial-friendly jurisdictions aggravates managerial moral hazard and lowers firm value, benefitting managers rather than shareholders (and vice versa for reincorporations into Delaware). Yet, our results indicate that after leaving Delaware, firm value increases while exposure to the market for corporate control declines. Hence, shareholders gain, rather than lose, after leaving Delaware and entering a more managerial-friendly jurisdiction. Self-selection would also imply that the boards of these reincorporating firms anticipate future value increases. However, the entrenchment view cannot explain why anyone (especially shareholders) would anticipate a value increase after reincorporating into a managerial-friendly state or why, more generally, leaving Delaware to reincorporate into a managerial-friendly state seems in the shareholders' interest (at least for the firms choosing to do so).

Conversely, self-selection seems compatible with the limited commitment hypothesis. Under this hypothesis, shareholder commitment requires trust in the board. Lack of such trust may cause shareholders to pressure non-Delaware firms to reincorporate into Delaware to facilitate a takeover. The subsequent decline in value after reincorporation into Delaware may thus be partly due to self-selection (if boards are more likely to 'give in' if directors anticipate disappointing future earnings) and partly due to an aggravated limited commitment problem.

4.3.1. Testing the Limited Commitment Problem

Theory suggests that the limited commitment problem would be more severe for firms where the nature of the business requires more commitment between the corporation and one or more of its stakeholders. Empirically, we try to capture the need for such commitment using four different proxies: *Engaged in R&D, Large Customers*, *Contract Specificity*, and *Relationship*

Industry (all defined in Panel A of Table 1). Table 8 shows the results of pooled panel *Q* regressions on, respectively, *DE* and *MS* dummies with and without the interactions with these commitment proxies (plus our standard controls). All but *Large Customers* are variables at the industry-level and thus have the advantage that they are arguably not (fully) under the firm's control, thereby mitigating endogeneity concerns.

The results shown in Table 8 strongly support the view that the negative association between Delaware reincorporation and firm value is primarily due to firms where the limited commitment problem is more severe. The results further suggest that the corporate law model of Managerial States helps to commit shareholders and boards to the creation of longer-term firm value, as reincorporation into a Managerial State is more strongly and positively related to changes in firm value for firms where the nature of the business requires more commitment between the corporation and its stakeholders.

In particular, the coefficient on the interaction between *Engaged in R&D* and *DE* of -0.152 (t-statistic of 2.40) in Column (1) indicates that firms that are engaged in research and development experience a 7.7% (=0.152%/1.97) greater decline in firm value when reincorporating into Delaware. Consistently, in Column (2) where we add the interaction of *Large Customers* (i.e., customers accounting for 10% or more of a firm's sales) and *DE*, we find that a firm reincorporating out of Delaware has a 4.6% (=0.091/1.97, with a t-statistic of 2.83) greater increase in firm value if it has a large customer compared to firms likewise reincorporating out of Delaware without a large customer.

The interaction of *Contract Specificity* (as defined in Nunn, 2007) with *DE* (shown in Column 3) also has a negative and, again, both statistically and economically significant coefficient. Economically, the coefficient implies that if a firm reincorporates into Delaware and it is in an industry whose *Contract Specificity* is a standard deviation above the average, this reincorporation is associated with a 12% (=-1.15*0.203/1.97, with a t-statistic of 2.17) greater decline in firm value compared to firms in industries with average *Contract Specificity*. As higher *Contract Specificity* means that firms have contracts that require more specific investments, this result suggests that incumbent managers, as well as other stakeholders, will have less incentive to undertake such investments when there is a higher likelihood that potential acquirers may expropriate them of the benefits of their sunk costs.

Finally, the coefficient on the interaction between *Relationship Industry* and *DE* equals -

0.162 (with a t-statistic of 2.49) in Column (4), which indicates that firms that are, in general, more engaged in longer-term stakeholder relationships are less valuable when they reincorporate into Delaware. Indeed, stakeholders at these firms – including employees, suppliers, and customers – will tend to be more affected by the potential adverse effects of a future change in control (Johnson, Karpoff, and Yi, 2014), which is more likely to take place in jurisdictions such as Delaware where boards are more exposed to the market for corporate control.[22]

Next, we interact the *Managerial States* with the four proxies for the importance of the limited commitment problem, showing results in Columns (5) through (8) of Table 7. In all four cases, the interaction coefficients have the opposite signs from those in Columns (1) through (4), with similar economic but generally weaker statistical significance. Only the interaction of *MS* with *Large Customer* is strongly statistically significant at the 5% level, while the interaction with *Relationship Industry* is marginally significant with a t-statistic of 1.63 (p-value of 10%). The weaker statistical significance relative to the *DE* interactions may be related to the lower number of reincorporations into and out of the Managerial States compared to Delaware. Nonetheless, the coefficients on the four interactions with *MS* are consistent with our hypothesis that the increase of firm value upon reincorporation into a Managerial State is larger if the firm is engaged in R&D, has a large customer, or is in an industry with more contract-specificity or longer-term stakeholder relationships.

4.3.2. The Tradeoff between Limited Commitment and Managerial Moral Hazard

In order to test potential tradeoffs between the limited commitment problem and the managerial moral hazard problem, we employ proxies for industry-level M&A activity and whether the firm has institutional investors owning at least 5% of outstanding shares. Indeed, managerial moral hazard is arguably less severe for firms that are more exposed to the market for corporate control. At the same time, the threat of a takeover may aggravate the limited commitment problem, as relationships with stakeholders such as employees, customers, and suppliers may get disrupted in a takeover (Cremers, Nair, and Peyer, 2008; Cen, Dasgupta, and Sen, 2013). As a result, our proxy of industry-wide takeover activity in the previous year, which

[22] Throughout the paper, the robust standard errors in the tables are clustered by firm. However, *Contract Specificity* and *Relationship Industry* vary only at the industry-year and the industry level, respectively. If we independently double cluster the standard errors at the industry and year levels the statistical significance of the results is generally but not always reduced, but results remain statistically significant at 10%.

previous research has shown to predict future takeover activity for firms in the same industry (Cremers, Nair, and John, 2008) considers the trade-off between these twin agency problems.

We also consider the role of institutional investors owning at least 5% of outstanding shares. These investors are more likely to have both the resources and incentives to be able to effectively monitor management, hence reducing the room for managerial moral hazard (Cremers and Nair, 2005; Tirole, 2006). However, when ownership is more concentrated, the threat of board removal – and, more generally, of a change in control – is also likely to be more serious, as institutional investors are less exposed to the collective action problems that affect dispersed shareholder actions (Agrawal and Knoeber, 1996; Knoeber, 1986). This, in turn, may exacerbate the limited commitment problem, for several reasons. First, the firm's managers may become overly preoccupied with (excess) monitoring by the largest institutional investors and develop perverse incentives to boost short-term earnings in order to secure the cooperation of such investors (Tirole, 2006). Second, other corporate stakeholders might become less willing to contribute firm-specific inputs if they anticipate that the presence of large institutional investors may more easily lead to the expropriation of their sunk costs for contributing those inputs. As a result, the large institutional investor proxy also captures the tradeoff between the twin agency problems of moral hazard and limited commitment.[23]

Table 9 presents the results for pooled panel *Q* regressions with *M&A in Industry* (see Columns 1 and 2) and *5% Block Ownership* (see Columns 3 and 4) interactions with the *DE* and *MS* dummies, respectively. In Column (1), the coefficient of the interaction of *DE* with *M&A in Industry* equals -0.215 (t-statistic of 3.33), suggesting that the decreased firm value associated with Delaware (re)incorporation is more pronounced for firms with significant M&A activity in their industry that year.[24] Assuming that such M&A activity exerts a disciplining effect on managerial moral hazard, this suggests that Delaware law – to the extent it likewise disciplines managerial moral hazard – is relatively less important in doing so. Economically, the coefficients suggest that if the M&A activity in the industry is one standard deviation (0.0807) higher, then

[23] Blockholders appear endogenously depending on firm decisions. However, when we add *5% Block Ownership* to the logit and Cox proportional hazard specifications in Table 5 to explain Delaware (re)incorporations, we find that these are not related to the presence of an institutional block holder. This reduces endogeneity concerns.

[24] Our proxy for the importance of the M&A channel, *M&A in Industry*, only varies by year, while the reported robust standard errors are clustered by firm. Clustering standard errors by industry (or independently double clustering the standard errors by industry and by year produces slightly larger standard errors, though the interaction coefficients remain statistically significant at 5%.

the firm value associated with Delaware reincorporation is 0.9% lower (=-0.215*0.0807/1.97). This result seems to indicate that the disciplining effect exerted on managerial moral hazard by more exposure to the market for corporate control does matter, but seems economically minor or a second order association.[25] Column (2) shows that significant M&A activity in the industry does not seem to matter for reincorporations into the Managerial States.

Columns (3) and (4) show the results for the *5% Block Ownership* interaction with the *DE* and *MS* dummies, respectively. In Column (3), the coefficient of the interaction of *DE* with *5% Block Ownership* equals -0.185 (with a t-statistic of 1.71, marginally significant at 10%), showing that the value of firms with an institutional block owner declines more after that firm reincorporates into Delaware than for firms without such block owner. This suggests that while more monitoring by large institutional investors may be beneficial to reduce managerial moral hazard, this benefit seems more than offset by the increase in the limited commitment problem that arises in firms with large institutional investors – at least in jurisdictions such as Delaware with milder antitakeover laws (and thus more board exposure to shareholder and market pressure), which are also likely to exacerbate the limited commitment problem.[26]

Consistently, Column (4) shows that the coefficient of the interaction of *MS* with *5% Block Ownership* has a positive coefficient of 0.225 (with a t-statistic of 1.79, against marginally significant at 10%), suggesting that in Managerial States where boards are further insulated from market pressure, firms with large institutional investors benefit from added monitoring from such investors, while being less penalized by the more severe limited commitment problem to which they are subject – arguably because in Managerial States the latter problem is more effectively addressed by state corporate laws than elsewhere.

Next, as a robustness check for the relative importance of managerial moral hazard, we investigate whether state corporate law is associated with the likelihood and performance

[25] As *M&A in Industry* only varies at the industry-year level, one could use independently double-clustered standard errors by year and industry here, rather than clustering by firm. Doing so results in similar statistical significance.

[26] One potential explanation for why a more active market for corporate control seems to reduce managerial moral hazard more than the presence of a large institutional investor is that a firm's incorporation into Delaware may be related to expectations of future takeover activity. Hence, the beneficial effect on firm value that we document in the interaction of *DE* and *M&A in Industry* may be partly due to an anticipation effect (Edmans, Goldstein, Jiang, 2012; Cremers, Nair, and John, 2008; Song and Walkling, 2000). As mentioned above, takeovers usually produce high abnormal returns to the target shareholders. Hence, the positive valuation effect we document for *DE*M&A in Industry* could be driven by an anticipation effect of increased probability of future takeover activity for firms incorporated in Delaware relative to firms incorporated elsewhere.

sensitivity of forced CEO turnover. Indeed, a board's ability and decision to fire the CEO after poor performance indicates that the board is able to properly perform its monitoring function. Accordingly, if incorporating in a Managerial State substantially exacerbated the problem of managerial moral hazard, we would expect that both the likelihood and the performance sensitivity of forced CEO turnover be significantly lower for firms incorporated in those states. Conversely, if incorporating into Delaware mitigated the problem of managerial moral hazard, we would expect that both the likelihood and the performance sensitivity of forced CEO turnover be significantly higher in Delaware relative to other states.[27]

4.3.3. Delaware Reincorporation, Dual Class Stock, and Shareholder Rights

The interaction analysis performed in Tables 8 and 9 documents that the decreased financial value for firms reincorporating into Delaware appears to be driven by firms where the limited commitment problem seems most relevant. This analysis would further suggest that in situations where the limited commitment problem is less pertinent, corporate law's role in reducing managerial moral hazard may be more important – an hypothesis that we test below.

We start by considering whether a firm has outstanding dual class stock, and then the level of firm-specific shareholder rights limitations in the firm's charter and bylaws as proxied by the *G-Index*. The presence of a controlling shareholder, as proxied by the issuance of dual class stock, likely mitigates the relevance of the limited commitment problem. Dual class stock implies that a firm has unequal voting rights, with one class of stocks giving substantial voting control. As a result, firms with dual class stocks (i.e., a controlling shareholder) have boards that are substantially insulated from shareholder and market pressure. Moreover, several reasons suggest that a controlling shareholder is likely to have better incentives to commit to long-term firm projects, which may add significant stability and mitigate the limited commitment problem.

[27] Appendix Table A.5 presents the marginal likelihood results for Cox proportional hazard models on the likelihood and performance sensitivity of CEO replacements, considering only forced CEO turnovers in Columns (1) and (2) and all CEO replacements in Columns (3) and (4). Forced turnovers are more likely after bad performance, but there is indication that these are more or less likely for firms incorporated in Delaware or a Managerial State. The marginal likelihood for the interaction between *MS* and *Abnormal Return* equals 1.397 with a t-statistic of 1.21, providing some but statistically quite weak (p-value of 22%) evidence that the performance sensitivity is larger for firms incorporated in a Managerial State. CEO replacements in general are also more likely after bad performance, as shown in Columns (3) and (4). We find that firms incorporated in Delaware are less likely to replace their CEO (*DE* has a marginal likelihood of -0.124% with a t-statistic of 1.94 in Column 3), and some weak evidence that their performance sensitivity is larger (*DE* * *Abnormal Return* has a marginal likelihood of 0.23 with a p-value of 18% in Column 4, which is economically minor compared to the marginal likelihood of *Abnormal Return* of -0.652).

First, controlling shareholders bear higher exit costs, since the cost of selling a large block is typically greater (Demsetz, 1983; Shleifer and Vishny, 1986). Second, as controlling shareholders often hold board seats (Holderness and Sheehan, 1988), they tend to be more informed about a firm's corporate affairs and hence better able to evaluate management performance over both short-term and long-term periods. Third, especially when controlling shareholders serve as directors, they are likely to be subject to reputational sanctions for reneging on prior commitments (Adams, Hermalin, and Weisbach, 2010).

The *G-Index*, introduced by Gompers, Ishii and Metrick (2001), measures limitations to shareholder rights using a composite of twenty-four variables (adding one point for any present), where a higher score indicates more restrictions on shareholder rights or a larger number of anti-takeover measures. The *G-Index* is generally used as a proxy for the extent to which the firm is subject to managerial moral hazard, with a high *G-Index* score indicating that the board and management are more insulated from shareholders and thus potentially more entrenched.

In order to use data on dual class stock and the *G-Index*, we employ an extended dataset from 1978 to 2007 as used in Cremers and Ferrell (2014), who combine hand-collected governance data for 1978-1989 with the 1990 – 2007 RiskMetrics data. The main limitation of this dataset is that it only includes the largest firms (about 900 firms until 1990, and about 1,500 firms annually after that). The dataset includes very few reincorporations for Managerial States, such that we can only empirically consider reincorporations involving Delaware.[28]

Table 10 presents results for panel *Q* regressions on Delaware incorporation, *DE*, with and without its interactions with *Dual Class* and the *G-Index* (plus our ordinary controls and including firm and year fixed effects throughout). Column (1) includes only *DE* with no interactions. Consistent with our time-series results for the much larger dataset covering 1994-2012, we find that the coefficient for *DE* over the time period 1978-2007 is negative, indicating that the reincorporation into (out of) Delaware is associated with a decrease (increase) in firm

[28] Specifically, this 1978-2007 sample of large firms includes 172 reincorporations into Delaware and 33 reincorporations out of Delaware, and a total number of 285 changes in firm reincorporations. In this sample, there are 14 dual class firms that reincorporate into Delaware (out of a total of 172) and 2 dual class firms that reincorporate out of Delaware (out of a total of 33). There are only 48 reincorporations into a Managerial State and only 16 out of a Managerial State, and using these give statistically insignificant results.

value of 9.5% (=coefficient of -0.143 divided by the sample average of Tobin's Q of 1.51, with a t-statistic of 2.21).[29]

Column (3) shows that the interaction of *DE* with *Dual Class* has a positive and statistically significant coefficient, which is sufficiently large to offset the negative coefficient on *DE*. For example, the coefficients in Column (3) suggest that firms with dual class stock reincorporating into (out of) Delaware increase (decrease) about 7% (=(0.263-0.158)/1.51, which difference is statistically significant in value, while firms with equal voting rights reincorporating into (out of) Delaware decrease (increase) 10% (=0.158/1.51, with a t-statistic of 2.58) in value.

The increase in financial value for firms with dual class stock when they (re)incorporate into Delaware is consistent with our hypothesis that state corporate law primarily matters to financial value when the limited commitment problem is relevant. For firms where a controlling shareholder adds credibility to the firm's commitment to long-term investment strategies, the limited commitment problem is likely not the main problem, in which case Delaware law may be more effective in reducing managerial moral hazard than other jurisdictions.

Next, we consider the *G-Index*. In Column (3), we include both *DE* and *G-Index* but not their interaction, and find that both have a negative and statistically significant coefficient (at 10%). The negative coefficient on *G-Index* is in line with the previous literature (Cremers and Ferrell, 2014), and shows that firm value tends to go up if the firm removes restrictions on shareholder rights. In Column (4), we separately consider the relevance of the *G-Index* for Delaware and non-Delaware incorporated firms. We find that the coefficient of the G-Index for firms incorporated in Delaware is close to zero and statistically insignificant (coefficient of -0.0005 with a t-statistic of 0.08), while the *G-Index* coefficient for firms incorporated outside of Delaware equals -0.0112 (with a t-statistic of 1.82), which is economically meaningful, negative and statistically significant at the 10% level.

On the one hand, this result suggests that the decrease in firm value associated with Delaware (re)incorporation is reduced for firms with weaker shareholder rights and/or more antitakeover defenses (i.e., firms with a higher *G-Index* score). For example, the coefficients in Column (4) suggest that reincorporation into Delaware is associated with a time-series decrease

[29] The unreported cross-sectional coefficient – using industry rather than firm fixed effects – is also negative and statistically significant, equal to -0.0492 with a t-statistic of 1.84.

in firm value of at least 10.8% (=(-0.221-(-0.0005-0.0112)*5)/1.51) for "democracy" firms with strong shareholder rights and/or less antitakeover defenses (i.e., firms with a *G-Index* of 5 or less). However, for 'dictatorship' firms with a *G-Index* score of 14 or higher, there is no statistically significant decrease in firm value associated with reincorporation into Delaware[30] – consistent with our hypothesis that corporate law seems to primarily matter for financial value when the limited commitment problem is relevant.

On the other hand, Column (4) indicates that reducing shareholder rights is unrelated to firm value for firms incorporated in Delaware, but negatively related to firm value for firms incorporated outside of Delaware. A possible interpretation of this result would be that being Delaware relatively takeover-friendly, the increased exposure to the market for corporate control of firms incorporated in Delaware would sufficiently reduce managerial entrenchment such that shareholder rights would matter less. In contrast, while the legal environment for firms incorporated outside of Delaware may more effectively deal with the limited commitment problem, it may also leave firms relatively more vulnerable to managerial moral hazard.

A limitation of the *G-Index* is that it combines many different shareholder rights provisions that may not all be equally important or even have an unequivocal relationship to entrenchment. For this reason, Bebchuk, Cohen and Ferrell (2009) introduced a subset of six of the *G-Index* provisions, termed the *E-Index*, which they argue are empirically the most relevant for managerial entrenchment. Among these six provisions, Cremers, Masconale, and Sepe (2015) further distinguish between bilateral and unilateral board protection provisions. The first include provisions whose adoption, as well as subsequent amendments, require both board initiation and shareholder approval. Accordingly, Cremers, Masconale, and Sepe (2015) interpret these provisions as more strongly committing both the boards and the shareholders to longer-term value creation. The second, instead, include provisions that can be adopted (or changed) by the board without asking for shareholder approval. Specifically, Cremers, Masconale and Sepe (2015) propose two sub-indices of the E-Index as better capturing this distinction between The *E-Index* provisions, namely the *C-Index* (commitment index) and the *I-Index* (incumbent index).

[30] The coefficient estimates suggest a smaller decrease of at most 3.8% (=(-0.221-(-0.0005-0.0112)*14)/1.51), and a smaller decrease for firms with a G-Index score above 14. The use of G-Index scores of 5 and 14 and the 'democracy' versus 'dictatorship' terms follows Gompers, Ishii and Metrick (2001). The calculations of the economic association between firm value and reincorporation into Delaware assume that the G-Index does not change due to the reincorporation, which is unlikely to be typical, and are only meant as illustrations.

The *C-Index* consists of three provisions that can serve as an ex-ante commitment device for shareholders to the firm's current strategy and financial policy, namely a staggered board and majority voting requirements to change the charter and for merger agreements. Each of these three provisions provides some short-term protection to incumbent directors. For example, directors of a staggered board are elected for three years terms rather than for one-year term as in firms with a unitary board, while supermajority requirements add stability by providing for generally substantially large shareholder voting majorities in the approval of changes to key corporate provisions. Similar to the *G-Index* and the *E-Index*, a higher value of the *C-Index* implies that a firm has adopted a greater number of commitment devices.

Conversely, the *I-Index* consists of three provisions that the board can unilaterally adopt to entrench itself without asking for shareholder approval, namely the adoption of a poison pill, golden parachutes and shareholder voting requirements to change the bylaws. A higher value of the *I-Index* implies that the board has adopted a greater number of these entrenchment devices.

We first replicate some of the main empirical results in Cremers, Masconale, and Sepe (2015), namely that in the time series, the *E-Index* has no significant association with firm value (see Column 5 in Table 10), while the I-Index has a negative and the *C-Index* a positive association (see Column 7). Next, Column (8) of Table 10 provides two noteworthy results. First, changes in the *C-Index* are only positively associated with changes in firm value for firms incorporated in Delaware (the coefficient of *C-Index x DE* equals 0.0860 with a t-statistic of 2.32, while the coefficient of *C-Index x Not DE* equals 0.0161 with a t-statistic of 0.52). This indicates that the negative Delaware effect is significantly mitigated by bilateral firm-level provisions that may reduce the limited commitment problem.

Second, the negative association between changes in the *I-Index* and changes in firm value is only statistically significant for firms that are not incorporated in Delaware (the coefficient of *I-Index x DE* equals -0.0230 with a t-statistic of 1.04, while the coefficient of *I-Index x Not DE* equals -0.0382 with a t-statistic of 1.91). While this result has limited statistical significance (e.g., we cannot reject that the two coefficients of -0.0230 and -0.0382 are equal), this is consistent with the managerial entrenchment problem being more important in states where firms have more limited exposure to the market for corporate control than in Delaware (whose takeover-friendly jurisdiction may provide stronger market discipline).

5. Conclusion

Both advocates of the race-to-the-bottom and the race-to-the-top views in the long-standing debate on interstate competition agree that the primary channel through which state corporate law influences a firm's financial value is through its ability to mitigate managerial moral hazard. These views differ only in assessing the incentives that intestate competition provides for controlling such problem. Largely based on empirical studies supporting the existence of a positive association of Delaware incorporation to firm value, race-to-the-top advocates argue that interstate competition promotes rules that benefit shareholders. Conversely, race-to-the-bottom advocates argue that interstate competition induces states to cater to managers, resulting in value-decreasing managerial-friendly rules such as excessively restrictive antitakeover statutes.

In this paper, we challenge the shared assumption that a state's response to managerial moral hazard is the main channel through which corporate law is related to financial value. Using a comprehensive database with historical incorporation information for all publicly traded firms in the U.S over the time-period 1994-2012, we document two important results. First, we find that the positive cross-sectional Delaware effect reported in prior studies becomes negative once we employ plausibly exogenous variation in Delaware incorporation at the IPO stage from the law firm identity. Second, we show that in the time series the Delaware reincorporation effect has a negative association with firm value, while reincorporation into Managerial States has a positive association with firm value. These results challenge both the race-to-the-top and the race-to-the-bottom arguments. On the one hand, the negative Delaware effect we document is inconsistent with the claim that Delaware has won the incorporation race by offering value-increasing laws. On the other, the positive Managerial States effect we document is inconsistent with the claim that managerial-friendly rules reduce firm value.

To explain our results, we explore the possibility that the financial value of state corporate laws primarily depends on a different agency problem, namely the limited commitment problem. Such a problem arises out of the shareholders' ability to sell their shares in public markets whenever this benefits them, which makes them unable to credibly commit to long-term investments. Anticipating the risk that shareholder exit in the short-term may result in a future change in control and investment policy, other stakeholders, including managers, have incentives to sub-optimally invest in the firm, which reduces firm value. Viewed through this lens,

Managerial States that further insulate directors from the consequences of shareholder exit might be better equipped to constrain a firm's commitment problem than jurisdictions like Delaware, which has less restrictive anti-takeover laws.

We find empirical support for the limited commitment hypothesis, as we document that the decreased (increased) financial value for firms reincorporating in Delaware (Managerial States) is driven by firms where the limited commitment problem seems most relevant, i.e., firms engaged in R&D, firms with a large customer, firms in industries requiring relationship-specific investments, and firms in relationship industries with long-term connections between the corporation and one or more of its stakeholders. Conversely, the negative Delaware effect is substantially reduced in firms where the limited commitment problem is likely to be less pertinent, i.e., firms with weaker shareholder rights and/or more antitakeover defenses and firms with a controlling shareholder.

From a broader perspective, our analysis challenges the normative desirability of a shareholder-driven corporate law model, which has encountered mounting success among both U.S. academics and regulators. In the past twenty years, the governance practice of U.S. corporations has been largely reshaped by a series of new regulations – including, most recently, the Dodd-Frank Act's introduction of say-on-pay shareholder votes and new proxy access rules – which have sustained shareholder empowerment and simultaneously eroded the corporate power of boards of directors and managers. Supporting these reforms, advocates of shareholder empowerment argue that shifting corporate authority to shareholders serves to maximize firm value, as shareholders' residual-claimant position give them the best incentives to provide value-enhancing inputs (Bebchuk, 2005, 2007).

Underlying this argument is the fundamental assumption that managerial moral hazard is the main – if not the sole – corporate agency problem (Romano, 1984). Our empirical evidence, however, seems to suggest that the limited commitment problem seems is the first-order information problem in the corporate context. As a result, the benefits arising from vesting shareholders with formal authority over the corporate decision-making are likely to be more than offset by the negative externalities that such a corporate model produces – exacerbating a firm's commitment issues and ultimately reducing rather than maximizing firm value. We also note that "Coasean bargaining" is unlikely to be an available solution in such circumstances as the inability of shareholders to make credible commitments negates the necessary premise for ex-

post efficient contracting with other corporate stakeholders, including managers. This is because shareholders' rapid exit rights create the risk that those who make the promises today may vanish tomorrow, while reputational sanctions are an unlikely threat for institutional investors. In a world where fund managers focus on quarterly earnings per share, exit from low-performing investments may increase, rather than decrease, a fund's reputation.

Our analysis raises a series of novel questions. First, shouldn't the market or at least longer-term shareholders anticipate the negative Delaware effect? How should one assess the overall impact of interstate competition? What is the direction that a corporate law reform should take, if any is needed? While further research is warranted to answer to these questions, our empirical results suggest that the relative takeover-friendly nature of Delaware may explain the continuing success of Delaware in the incorporation race, as laws that promote a more active market for corporate control are likely to increase an investor's short-term returns (as well as the fees for those advising acquirers and targets), although potentially at the expense of the creation of long-term firm value.

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FIGURE 1:
PERCENTAGE OF FIRMS, IPOS, AND MARKET CAPITALIZATION BY STATE OF INCORPORATION.

Panel A shows the percentages of firms by state of incorporation for all the firms in our all-Compustat sample each year from 1994 to 2012. Panel B shows the percentage of firms by state of incorporation at the IPO each year from 1994 to 2012. Panel C shows the percentages of market capitalization by state of incorporation.

Figure 1, Panel A. Percentage of Firms by State of Incorporation

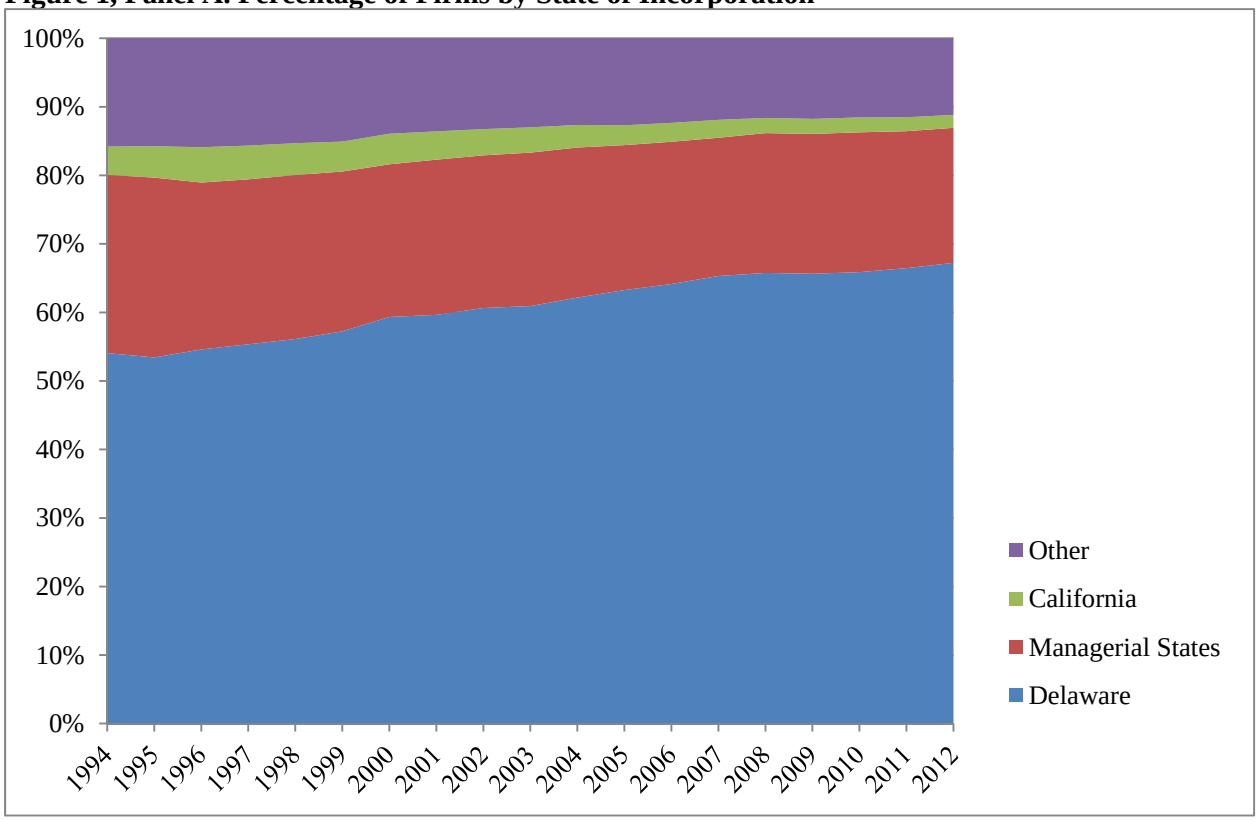


Figure 1, Panel B. Percentage of IPOs by State of Incorporation

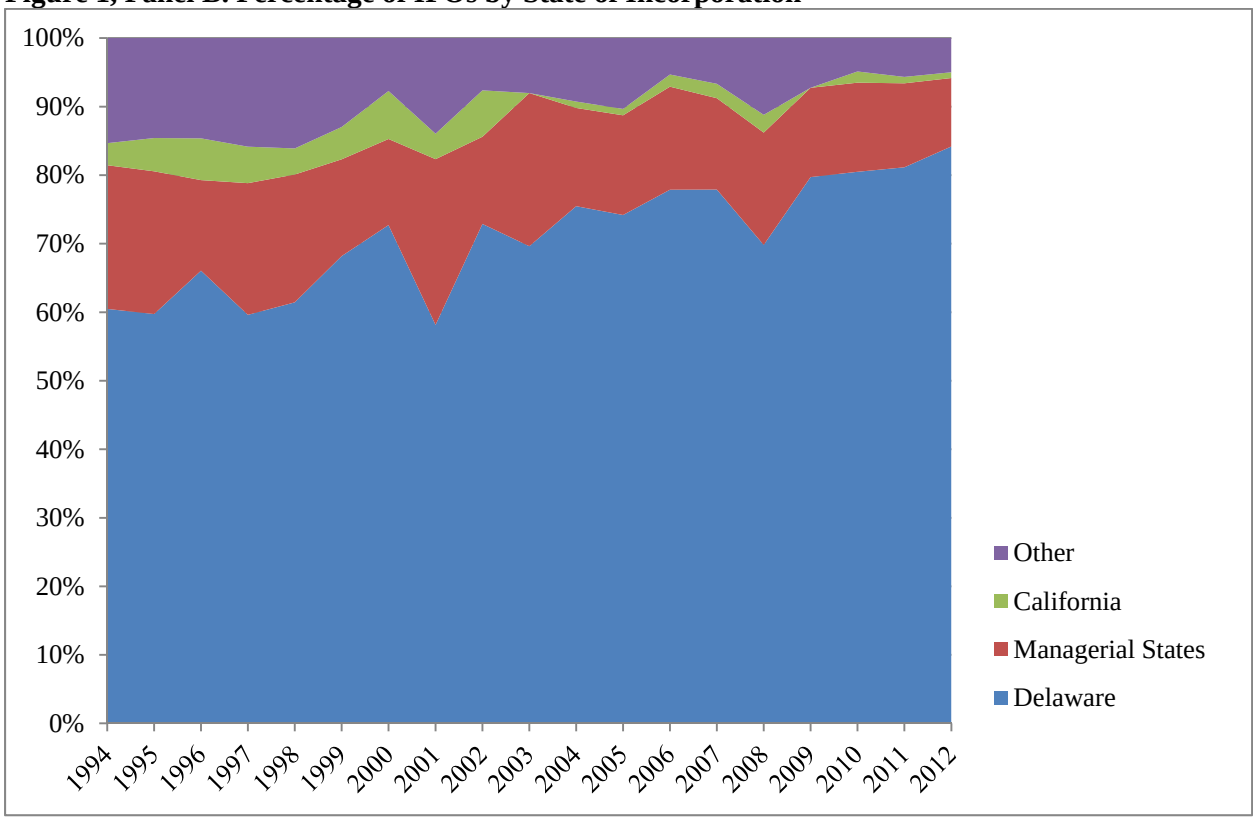


Figure 1, Panel C. Percentage of Market Capitalization by State of Incorporation

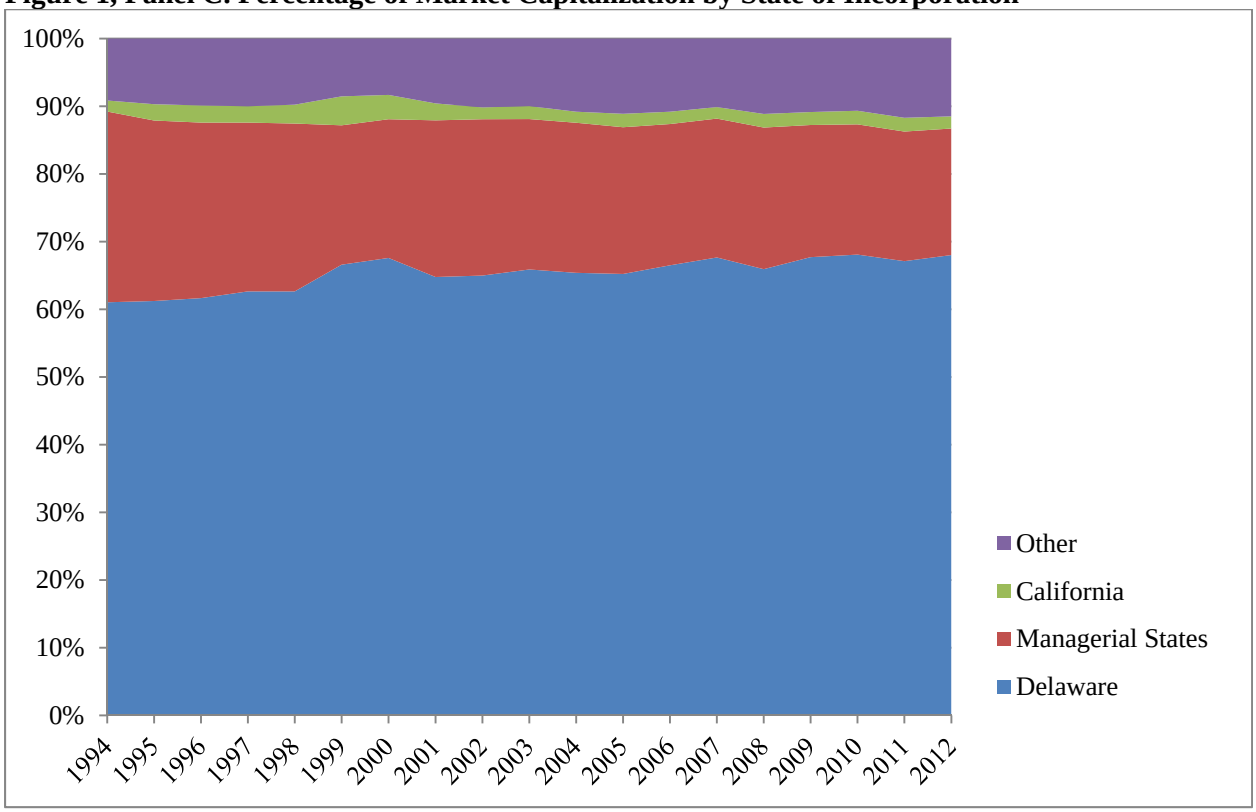


FIGURE 2:
(RE)INCORPORATIONS IN – AND OUT OF – BY STATE

Figure 2 presents the annual numbers of (re)incorporations *into* Delaware, Managerial States, and California (in Panel A) and *out of* these jurisdictions (in Panel B). The time period is 1996-2011.

Figure 2, Panel A. Number of Reincorporations by State Re-Incorporated Into

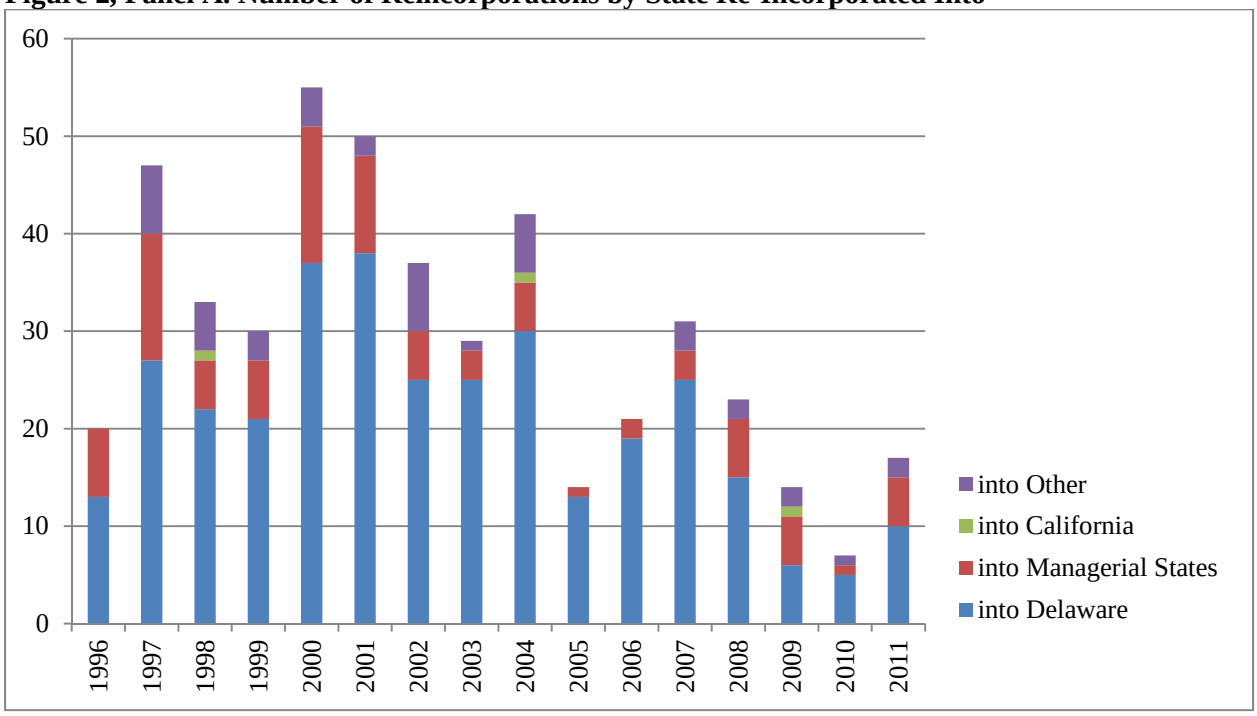
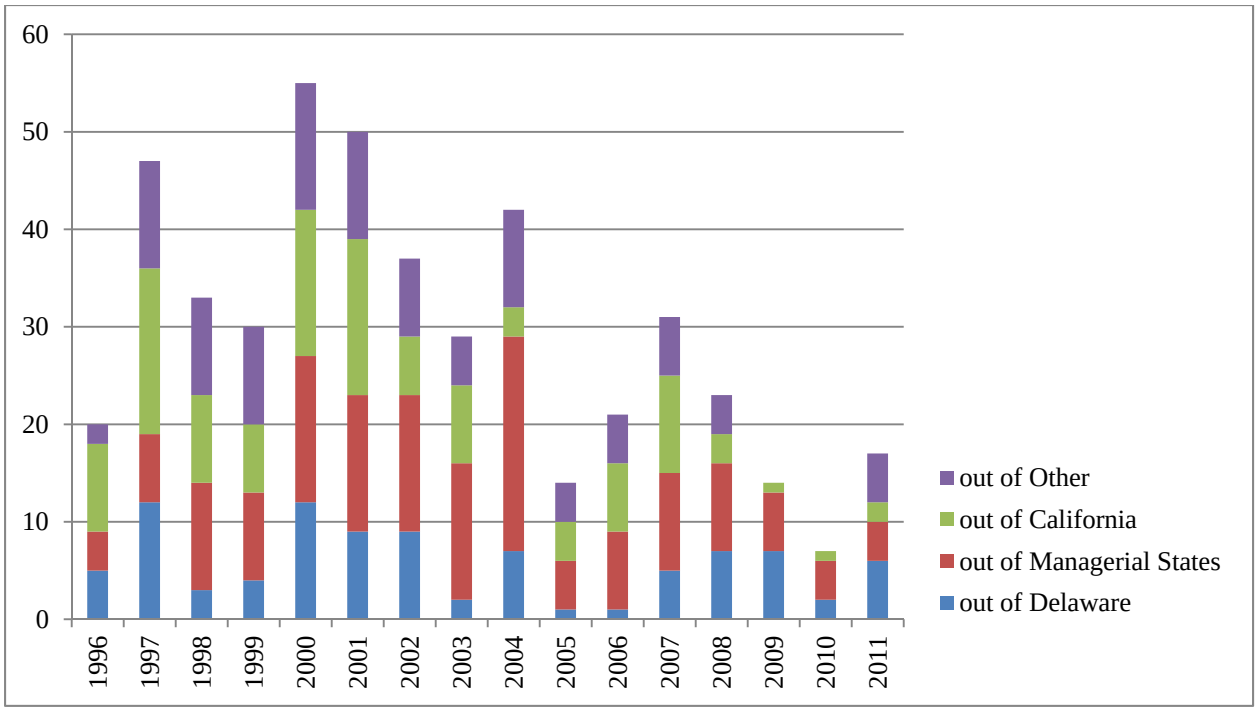


Figure 2, Panel B. Number of (Re)incorporations by State (Re)Incorporated Out of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2010
2011
out of Other
out of California
out of Managerial States
out of Delaware

TABLE 1, PANEL A: DEFINITIONS OF VARIABLES

Panel 1 of Table 1 presents brief definitions of the main variables that appear in the analysis. All continuous variables are winsorized at 1% in both tails (or as specified).

Dependent Variables:	
Tobin's Q	Defined as the market value of assets (i.e., total assets – book equity + market equity) divided by the book value of assets at the end of the fiscal year. Calculation follows Fama and French (1992). This variable is then winsorized at 5% in each tail of its distribution. Source of data is Compustat annual data file.
CEO Turnover	Defined as one if there is a voluntary CEO departure in the Jenter and Kanaan (2010) data file; as zero otherwise. Data are available for the time period 1993-2001.
Forced CEO Turnover	Defined as one if there is an involuntary CEO departure in the Jenter and Kanaan (2010) data file; as zero otherwise. Data are available for the time period 1993-2001.
$Q_{Delisting\text{-}price}$	Defined like Tobin's Q, except that for firms that delist during our time period, the market capitalization at last the fiscal-year end in our time period is replaced by the market capitalization at the time of delisting, using the delisting price from CRSP and the number of shares outstanding at the time of delisting.
Independent Variables	
State-ATP	Index capturing how many out of six state-level antitakeover protections are in place in the firm's state of incorporation (see Section 3.1 for details).
DE	Defined as one if the company is incorporated in Delaware (*State-ATP* of 1).
Medium State-ATP	Defined as one if the company is incorporated in a state with a medium level of the *State-ATP* index of 2 to 4.
MS	Defined as one if the company is incorporated in a Managerial State with a high *State-ATP* index level of 5 or 6.
CA	Defined as one if the company is incorporated in California.
State-ATP of 1 (not DE)	Defined as one if the company is incorporated in a state other than Delaware with a *State-ATP* index level of 1
$State_{Incorproation} = State_{Headquarters}$	Defined as one if the state of incorporation is identical to the state where the firm's headquarters are located.
DE @ IPO	Defined as one if the firm incorporates in Delaware at the IPO.
Out of DE	Defined as one if the firm reincorporates out of Delaware at any point in time during the sample.

Into DE	Defined as one if the firm reincorporates into Delaware at any point in time during the sample.
Not DE	Defined as one if the firm is not incorporated in Delaware.
Out of MS	Defined as one if the firm reincorporates out of a Managerial State at any point in time during the sample.
Into MS	Defined as one if the firm reincorporates into a Managerial State at any point in time during the sample.
Out of CA	Defined as one if the firm reincorporates out of California at any point in time during the sample.
Out of State-ATP of 2 – 4	Defined as one if the firm reincorporates out of a state with a *State-ATP* index level of 2 – 4 at any point in time during the sample.
Into State-ATP of 2 – 4	Defined as one if the firm reincorporates into a state with a *State-ATP* index level of 2 – 4 at any point in time during the sample.
$P(DE_{Law\ Firm\ @\ IPO})$	Predicted value of an OLS regression of *DE @ IPO* on the standard controls (at the end of the first fiscal year-end after the IPO) plus fixed effects for the law firm advising the IPO firm, which hand-collected data is from Johnson, Karpoff, and Yi (2014).
Log Law Firm IPOs	Log of the number of IPO firms advised by the firm's law firm at the time of the IPO.
CAPX/ Assets	Capital Expenditure/ Total Assets.
Leverage	Ratio of the sum of total short-term and long-term debt over total book assets.
Log (Assets)	Natural logarithm of total book assets.
PPE/Assets	Ratio of the book value of property, plant, and equipment over total book assets.
R&D/ Assets	Ratio of research and development expenditures over the total book assets.
Engaged in R&D	Defined as one when a firm has non-missing R&D expenditures.
Interacted Variables:	
Institutional Ownership	Percentage of outstanding shares owned by institutions. Source is 13F Thomson data as available on WRDS.
5% Block Ownership	Percentage of outstanding shares owned by institutions that each owns at least 5% of outstanding shares. Source is Thomson as available on WRDS, which provides data on aggregated holdings in the 13F filings.
Contract Specificity	Defined as one if the firm is an industry that uses a higher fraction of inputs that are not sold on an organized exchange or reference priced in a trade publication. Data is from the Nunn (2007) data file. Data is available for 1997 only.

Dual Class	Defined as one if the firm has dual class stock. Data is from the Cremers and Ferrell (2014) dataset and RiskMetrics for 1978-2007.
G-Index	Governance index; sum of 24 governance provisions indicators in the corporate charter or bylaws introduced by Gompers, Ishii, and Metrick (2003). Data is from the Cremers and Ferrell (2014) dataset and RiskMetrics, available for 1978-2007.
E-Index	Entrenchment index; sub-index of the G-Index, sum of 6 governance provisions indicators in the corporate charter or bylaws introduced by Bebchuk, Cohen, and Ferrell (2009).
I-Index	Incumbent index; sub-index of the E-Index, sum of 3 governance provisions indicators in the corporate charter or bylaws introduced by Cremers, Masconale, and Sepe (2015), consisting of three "unilateral" provisions that the board can adopt without asking for shareholder approval and that unilaterally protect incumbents from long-term shareholder discipline (namely the poison pill, golden parachutes, and supermajority requirements to change the corporate bylaws and).
C-Index	Commitment index; sub-index of the E-Index, sum of 3 governance provisions indicators in the corporate charter or bylaws introduced by Cremers, Masconale, and Sepe (2015), consisting of three "bilateral' provisions" that generally require shareholder approval (namely a staggered board and supermajority requirements to change the charter and to approve merger agreements).
Large Customer	Defined as one if the firm has a least one customer accounting for 10% or more of its sales. Source is Compustat Segments – Customer database on WRDS.
M&A in Industry	The ratio of mergers & acquisitions' dollar volume in SDC to the total market capitalization from CRSP for a calendar year, as per a given Fama-French 49 industry. The CRSP annual industry market capitalization is for ordinary stocks only and excludes ADRs and REITs. If no M&A activity per given industry-year is reported in SDC, we assume it to be zero. We only include transactions where buyer achieves control of the target.
Relationship Industry	Defined as one if the firm is a 2-digit industry characterized by longer-term commitments between the firm and its stakeholders such as employees, suppliers, and customers as coded in the Cremers, Nair, and Peyer (2008) appendix; and zero otherwise.
Engaged in R&D	Defined above.

TABLE 1, PANEL B: DESCRIPTIVE STATISTICS.

Panel B of Table 1 shows descriptive statistics (the mean and the standard deviation) for the main variables in two samples. The first is our main data sample, which consists of 10,880 firms and over 80,000 firm-year observations for 1994 - 2012. The second samples consists of the 1978 – 2007 dataset from Cremers and Ferrell (2014), consisting of 1,877 firms and over 26,000 firm-year observations. See Panel A of Table 1 for descriptions of the variables.

	1994 - 2012 Sample		1978-2007 Sample	
Variable	Mean	Std.Dev.	Mean	Std.Dev.
Tobin's Q	1.971	1.378	1.511	0.804
DE	0.600	0.490	0.486	0.500
MS	0.226	0.418	0.263	0.440
Medium State-ATP	0.106	0.308		
CA	0.037	0.189	0.013	0.112
State-ATP of 1 (not DE)	0.031	0.174		
DE@IPO	0.714	0.452		
$P(DE_{Law\ Firm\ @\ IPO})$	0.739	0.305		
Log Assets	5.430	2.082	7.331	1.593
Leverage	0.207	0.219	0.508	0.189
CAPX/Assets	0.054	0.065	0.062	0.045
R&D/Assets	0.060	0.128	0.021	0.045
Engaged in R&D	0.574	0.494	0.470	0.499
PPE/Assets	0.234	0.225	0.352	0.225
Large Customer	0.321	0.467		
Contract Specificity	0.666	0.202		
Relationship Industry	0.682	0.466		
Institutional Ownership	0.326	0.321		
5% Block Ownership	0.118	0.147		
M&A in Industry	0.030	0.073		
Dual Class	0.000	0.000	0.075	0.263
G-Index			8.070	3.429
E-Index			2.133	1.390
C-Index			0.940	0.790
I-Index			1.120	0.939

TABLE 2: REINCORPORATION TRANSITION MATRIX

Table 2 shows the reincorporation transition matrix for our sample of firms, showing the original state (or group of states) of incorporation and destination state of incorporation for a total of 470 reincorporations over the period 1996-2011, separating reincorporations into and out of Delaware (*DE*), Managerial States (*MS*) and California (*CA*). All other states of incorporations are grouped together in "Other".

		OUT OF				
		DE	***MS***	***CA***	**Other**	**TOTAL INTO**
INTO	***DE***	-	133	115	83	**331**
	MS	61	14	1	15	**91**
	CA	2	1	-	0	**3**
	Other	29	8	2	6	**45**
	TOTAL OUT OF	**92**	**156**	**118**	**104**	**470**

TABLE 3: FIRM VALUE AND CORPORATE LAW - DELAWARE INCORPORATION

Table 3 presents results for the cross-sectional association between incorporation in, respectively, Delaware (*DE*), a Managerial State (*MS*), or California (*CA*) and firm value between 1994 and 2012, using pooled panel Tobin's Q regressions. Column (1) presents results for a regression that only includes *DE*. Column (2) controls for year fixed effects, while Columns (3) through (9) control for both year and industry fixed effects at the 4-digit SIC level. Columns (4) through (9) also include the following controls: *Log Assets, Leverage, CAPX/Assets, R&D/Assets*, *Engaged in R&D, PPE/Assets*. Column (5) adds fixed effects for the state where the firm's corporate headquarters are located. Columns (6) and (9) consider whether the association between firm value and state of incorporation is different in the second half of our sample (2002-2012). Column (9) adds a dummy that equals one if the state of incorporation is the same as the state where the headquarters are located ($State_{Incorproation} = State_{Headquarters}$), plus its interaction with *MS*. T-statistics of the regression coefficients are shown in parentheses below the coefficient estimates. All independent and control variables are defined in Table 1. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively, based on robust standard errors clustered by firm.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent variable:				*Tobin's Q*					
DE	0.165***	0.177***	0.0354*	0.0168	0.00983	0.0645***	0.0307	0.108***	-0.00903
	(7.22)	(7.69)	(1.77)	(0.89)	(0.50)	(2.71)	(1.14)	(3.36)	(-0.17)
MS							-0.00665	0.0159	0.00466
							(-0.22)	(0.44)	(0.08)
CA							0.177***	0.313***	0.182***
							(3.03)	(4.37)	(3.10)
*DE * 2002-2012*						-0.102***		-0.169***	
						(-3.62)		(-4.21)	
*MS * 2002-2012*								-0.0549	
								(-1.22)	
*CA * 2002-2012*								-0.349***	
								(-3.78)	
*MS * $State_{Incorproation} = State_{Headquarters}$*									-0.0235
									(-0.35)

$State_{Incorproation} = State_{Headquarters}$									-0.0477
									(-0.87)
Log Assets				-0.00422	-0.00398	-0.00423	-0.00407	-0.00423	-0.00357
				(-0.74)	(-0.70)	(-0.74)	(-0.71)	(-0.74)	(-0.62)
Leverage				-0.420***	-0.415***	-0.419***	-0.415***	-0.414***	-0.419***
				(-8.99)	(-8.83)	(-8.96)	(-8.86)	(-8.85)	(-8.96)
CAPX/Assets				3.422***	3.390***	3.419***	3.413***	3.404***	3.411***
				(25.54)	(25.46)	(25.49)	(25.47)	(25.40)	(25.46)
R&D/Assets				2.101***	2.080***	2.102***	2.084***	2.081***	2.084***
				(21.31)	(21.02)	(21.35)	(21.13)	(21.11)	(21.12)
Engaged in R&D				0.161***	0.158***	0.161***	0.162***	0.162***	0.162***
				(6.88)	(6.68)	(6.86)	(6.89)	(6.89)	(6.90)
PPE/Assets				-0.899***	-0.890***	-0.901***	-0.892***	-0.892***	-0.890***
				(-14.21)	(-14.15)	(-14.24)	(-14.13)	(-14.15)	(-14.12)
Fixed Effects	None	Year	Year, SIC	Year, SIC	Year, SIC $State_{Headq}$	Year, SIC	Year, SIC	Year, SIC	Year, SIC
N	80,773	80,773	78,217	78,216	78,210	78,216	78,216	78,216	78,216
R-sq	0.003	0.036	0.223	0.272	0.274	0.272	0.272	0.273	0.272

TABLE 4: FIRM VALUE AND DELAWARE INCORPORATION – IPO INCORPORATION AND LAW FIRM IDENTITY

Table 4 presents results for the cross-sectional association between firm value and Delaware incorporation (*DE*), dependent on whether the firm incorporated in Delaware at the IPO stage (*DE @ IPO*) and the likelihood that the law firm advising the firm at the IPO stage is associated with firms incorporating in Delaware at the IPO, $P(DE_{Law\ Firm\ @\ IPO})$. The sample of firms includes only those firms that have their IPO in our sample, and, for Columns (3) through (8), for which we have the hand-collected data on the IPO law firm identity from Johnson, Karpoff, and Yi (2014). In columns (6) and (8), we only consider firms whose IPO law firm advises at least four firms in our sample. We also always include the following controls: *Log Assets, Leverage, CAPX/Assets, R&D/Assets*, *Engaged in R&D, PPE/Assets* plus year and industry fixed effects (4-digit SIC level). All independent and control variables are defined in Table 1. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively, based on robust standard errors clustered by firm.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:				*Tobin's Q*				
DE	-0.0105	-0.246***	0.0350	-0.0443	0.415**	0.579*	0.268	0.519
	(-0.25)	(-3.01)	(0.50)	(-0.50)	(2.19)	(1.77)	(1.42)	(1.59)
*DE * DE @ IPO*		0.252***						
		(3.23)						
$P(DE_{Law\ Firm\ @\ IPO})$				0.180	0.504***	0.444	0.316*	0.313
				(1.38)	(2.91)	(1.26)	(1.72)	(0.89)
$DE * P(DE_{Law\ Firm\ @\ IPO})$					-0.717***	-0.899**	-0.512*	-0.827*
					(-2.75)	(-2.05)	(-1.95)	(-1.88)
Log Law Firm IPOs							0.0718***	0.0810**
							(2.79)	(2.04)
Year and Industry Fixed Effects:	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Standard controls Included:	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	20,535	20,387	7,891	7,848	7,848	5,601	7,848	5,601
R-sq	0.299	0.301	0.315	0.315	0.317	0.347	0.319	0.349

TABLE 5: FIRM VALUE AND CORPORATE LAW – FIRM FIXED EFFECTS.

Table 5 presents results for the association between firm value and, respectively, Delaware incorporation (*DE*), Managerial State incorporation (*MS*), California incorporation (*CA*), incorporation in a state with a *State-ATP* index level of 1 other than Delaware (*State-ATP of 1 x Not DE*) and incorporation in a state with a *State-ATP* index level between 2 and 4, between 1994 and 2012, using pooled panel Tobin's Q regressions and controlling for year and firm fixed effects. We also always include the following controls: *Log Assets, Leverage, CAPX/Assets, R&D/Assets*, *Engaged in R&D, PPE/Assets*. All independent and control variables are defined in Table 1. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively, based on robust standard errors clustered by firm.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:				*Tobin's Q*				
DE	-0.245***	-0.276***						
	(-4.21)	(-3.79)						
*DE * Out of DE*		0.138						
		(1.36)						
State-ATP of 1 x NotDE			-0.298					
			(-1.30)					
Medium State-ATP				0.00656				
				(0.06)				
MS					0.173**	0.155*		
					(2.50)	(1.63)		
*MS * Out of MS*						0.0503		
						(0.44)		
CA							0.644***	0.558***
							(5.16)	(3.17)
*CA * Out of CA*								0.0897
								(0.41)
Log Assets	-0.274***	-0.274***	-0.277***	-0.276***	-0.275***	-0.275***	-0.276***	-0.276***
	(-19.08)	(-19.07)	(-19.25)	(-19.22)	(-19.13)	(-19.13)	(-19.30)	(-19.29)

Leverage	-0.441***	-0.441***	-0.441***	-0.441***	-0.442***	-0.442***	-0.440***	-0.440***
	(-8.78)	(-8.78)	(-8.76)	(-8.76)	(-8.80)	(-8.79)	(-8.75)	(-8.75)
CAPX/Assets	2.072***	2.071***	2.081***	2.080***	2.076***	2.076***	2.067***	2.067***
	(15.75)	(15.73)	(15.81)	(15.80)	(15.79)	(15.78)	(15.72)	(15.72)
R&D/Assets	0.355***	0.355***	0.352***	0.353***	0.353***	0.353***	0.351***	0.351***
	(2.79)	(2.79)	(2.77)	(2.77)	(2.78)	(2.78)	(2.76)	(2.76)
Engaged in R&D	0.0449	0.0447	0.0508	0.0483	0.0481	0.0483	0.0485	0.0485
	(1.11)	(1.10)	(1.26)	(1.20)	(1.19)	(1.19)	(1.21)	(1.21)
PPE/Assets	-0.965***	-0.965***	-0.962***	-0.962***	-0.963***	-0.963***	-0.960***	-0.960***
	(-10.46)	(-10.46)	(-10.42)	(-10.42)	(-10.44)	(-10.44)	(-10.41)	(-10.40)
Fixed Effects:	Year, Firm	Year, Firm	Year, Firm	Year, Firm	Year, Firm	Year, Firm	Year, Firm	Year, Firm
N	80,767	80,767	80,767	80,767	80,767	80,767	80,767	80,767
R-sq	0.607	0.607	0.607	0.607	0.607	0.607	0.608	0.608

TABLE 6, PANEL A AND B: CHANGES IN FIRM VALUE AND CORPORATE LAW

Table 6, Panel A presents pooled panel first difference regressions with the dependent variables being the change in Tobin's Q (Δ*Q*) in the next 1, 2, 3, and 4 years after changes in the independent variable *DE* (Δ*DE*). All dependent variables are adjusted for the median *Q* in the firm's industry that year. All specifications also include year fixed effects. As additional independent variables, we include the following: Δ*Log Assets,* Δ*Leverage,* Δ*CAPX/Assets,* Δ*R&D/Assets*, Δ*Engaged in R&D,* Δ*PPE/Assets*. Sample period is 1994-2012, but it varies per column due to availability of lagged data and is reported for each column. Columns (1) – (4) present results for firms not incorporated in Delaware before the decision to reincorporate (Δ*DE * Into DE*, which is a dummy equal to one for firms incorporate elsewhere that decide to reincorporate into Delaware). Columns (5) – (8) present results for firms incorporated into Delaware before the decision to reincorporate (Δ*DE * Out of DE*, which is a dummy equal to one for firms incorporate in Delaware that decide to reincorporate elsewhere). Table 6, Panel B includes analogous regressions for reincorporations into and out of the Managerial States, using the analogously defined Δ*MS * Into MS* and Δ*MS * Out of MS.* Robust standard errors are clustered at the firm level. All dependent, independent, and control variables are defined in Table 1. T-statistics of the regression coefficients are shown in parentheses below the coefficient estimates. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively.

Panel A. Changes in Firm Value and Reincorporations Into and Out of Delaware

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:				*ΔTobin's Q (Median-Adjusted at the Industry-Year Level)*				
Sample	All firms not incorporated in DE before the change				All firms incorporated in DE before the change			
Years ahead for change	1	2	3	4	1	2	3	4
*ΔDE * Into DE*	-0.105	-0.0908	-0.274**	-0.282**				
	(-1.35)	(-0.83)	(-2.40)	(-2.35)				
*ΔDE * Out of DE*					0.131*	0.0711	0.209**	0.230**
					(1.91)	(1.02)	(2.28)	(2.28)
ΔLog Assets	-0.404***	-0.653***	-0.723***	-0.847***	-0.467***	-0.666***	-0.649***	-0.709***
	(-12.90)	(-16.62)	(-14.61)	(-15.54)	(-20.59)	(-19.27)	(-16.05)	(-15.05)
ΔLeverage	0.252***	0.610***	0.632***	0.768***	0.373***	0.576***	0.627***	0.750***
	(2.99)	(5.78)	(5.01)	(5.46)	(5.77)	(7.26)	(6.66)	(7.23)
ΔCAPX/Assets	-0.643***	-0.949***	-0.847***	-0.805***	-0.777***	-0.849***	-0.852***	-1.068***
	(-3.49)	(-4.93)	(-4.27)	(-3.69)	(-5.24)	(-4.43)	(-4.30)	(-5.13)
ΔR&D/Assets	0.334	0.630*	0.192	-0.585*	0.0109	0.188	-0.0528	-0.586***
	(1.13)	(1.75)	(0.55)	(-1.78)	(0.07)	(1.03)	(-0.27)	(-2.72)
ΔPPE/Assets	-0.122	0.0312	0.155	-0.0357	-0.267**	0.0724	-0.00426	0.195
	(-0.80)	(0.19)	(0.77)	(-0.17)	(-2.17)	(0.40)	(-0.02)	(0.92)
N	24,114	20,855	18,083	15,741	35,343	30,010	25,539	21,704
R-sq	0.040	0.064	0.059	0.061	0.068	0.081	0.073	0.067

Panel B. Changes in Firm Value and Reincorporations Into and Out of Managerial States

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:				*ΔTobin's Q (Median-Adjusted at the Industry-Year Level)*				
Sample	All firms not incorporated in MS before the change				All firms incorporated in MS before the change			
Years ahead for change	1	2	3	4	1	2	3	4
Δ*MS * Into MS*	0.0703**	0.129**	0.199***	0.250***				
	(2.29)	(2.38)	(2.94)	(3.47)				
Δ*MS * Out of MS*					-0.00397	-0.0470	-0.0916**	-0.134**
					(-0.18)	(-1.40)	(-2.10)	(-2.48)
Δ*Log Assets*	-0.458***	-0.673***	-0.674***	-0.747***	-0.396***	-0.618***	-0.672***	-0.798***
	(-22.67)	(-22.35)	(-18.98)	(-18.15)	(-8.99)	(-11.75)	(-9.72)	(-10.43)
Δ*Leverage*	0.350***	0.571***	0.630***	0.751***	0.254**	0.650***	0.622***	0.779***
	(5.97)	(7.97)	(7.45)	(7.98)	(2.37)	(4.81)	(3.74)	(4.43)
Δ*CAPX/Assets*	-0.719***	-0.930***	-0.904***	-0.978***	-0.744***	-0.764***	-0.676**	-0.890***
	(-5.54)	(-5.77)	(-5.59)	(-5.72)	(-2.93)	(-3.22)	(-2.44)	(-2.90)
Δ*R&D/Assets*	0.0527	0.198	-0.0928	-0.651***	0.417	1.162*	0.845	-0.115
	(0.35)	(1.19)	(-0.52)	(-3.39)	(1.01)	(1.86)	(1.53)	(-0.21)
Δ*PPE/Assets*	-0.210*	0.124	0.0952	0.0754	-0.233	-0.225	-0.117	0.170
	(-1.91)	(0.83)	(0.60)	(0.43)	(-1.23)	(-1.01)	(-0.44)	(0.64)
N	45,667	38,874	33,180	28,321	13,790	11,991	10,442	9,124
R-sq	0.063	0.079	0.071	0.066	0.034	0.059	0.055	0.061

TABLE 7. TAKEOVER LIKELIHOOD, TAKEOVER PREMIUM AND (RE)INCORPORATION

Panel A of Table 7 presents the marginal effects of Cox proportional hazard models, where "failure" is defined as being acquired (with a majority of shares sold to the acquiring firm) in the next fiscal year, during our 1994-2012 sample. Panel B of Table 7 presents the results of takeover premium regressions for all completed takeovers in our 1994-2012 sample. The takeover premium is calculated as the percentage change in price from the announced takeover price relative to the target's stock price one week before announcement. Acquisition data is from SDC, and the robust standard errors are clustered by firm.

PANEL A. TAKEOVER LIKELIHOOD AND (RE)INCORPORATION

	(1)	(2)	(3)	(4)	(5)
Dependent variable:	*P(Being Acquired in the Next Fiscal Year)*				
Tobin's Q	-0.288***	-0.282***	-0.283***	-0.286***	-0.269***
	(11.44)	(12.61)	(12.60)	(12.53)	(10.53)
DE	-0.049	-0.080**	-0.080**		-0.108*
	(0.88)	(2.15)	(2.14)		(1.68)
*DE * Into DE*		0.402**			
		(2.52)			
*DE * Out of Medium State-ATP*			0.068		0.064
			(0.23)		(0.23)
*DE * Out of MS*			0.550**		0.531**
			(2.02)		(2.03)
*DE * Out of CA*			0.453*		0.432*
			(1.72)		(1.72)
Medium State-ATP				0.082	-0.012
				(1.24)	(0.15)
*Medium State-ATP * Into Medium State-ATP*				-0.379	-0.357
				(1.43)	(1.42)
*Medium State-ATP * Out of DE*				0.091	0.104
				(0.08)	(0.09)
MS	0.010			0.057	-0.034
	(0.15)			(1.21)	(0.48)
*MS * Into MS*				0.035	0.036
				(0.15)	(0.16)
*MS * Out of DE*				-1.158***	-1.083***
				(17.40)	(13.28)
CA	0.182				
	(1.49)				
Log Assets	-0.042***	-0.041***	-0.042***	-0.044***	-0.039***
	(4.04)	(4.09)	(4.09)	(4.47)	(3.94)
Leverage	0.171*	0.164*	0.166*	0.161*	0.161*
	(1.89)	(1.85)	(1.86)	(1.80)	(1.90)
CAPX/Assets	-0.482	-0.453	-0.453	-0.435	-0.409
	(1.29)	(1.24)	(1.23)	(1.18)	(1.18)
R&D/Assets	0.574***	0.573***	0.574***	0.556***	0.531***
	(3.30)	(3.37)	(3.37)	(3.23)	(3.24)
Engaged in R&D	-0.363***	-0.357***	-0.358***	-0.355***	-0.334***
	(6.74)	(7.05)	(7.06)	(6.90)	(6.56)
PPE/Assets	-0.347***	-0.349***	-0.347***	-0.349***	-0.335***
	(3.01)	(3.08)	(3.06)	(3.03)	(3.05)
Institutional Ownership	0.917***	0.899***	0.899***	0.922***	0.869***
	(8.45)	(8.88)	(8.88)	(9.02)	(8.17)
Institutional Block-Ownership	0.492***	0.492***	0.493***	0.467***	0.454***
	(2.96)	(3.02)	(3.03)	(2.84)	(2.91)
N	79,296	79,296	79,296	79,296	79,296
N of complete acquisitions	4,060	4,060	4,060	4,060	4,060

TABLE 7, PANEL B. TAKEOVER PREMIUM AND (RE)INCORPORATION

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	*Takeover Premium (% price change relative to one week before announcement)*						
DE	0.0388	-0.0170	-0.0170				0.0393
	(1.53)	(-1.52)	(-1.52)				(1.56)
*DE * Into DE*		-0.0152	-0.0544				-0.0553
		(-0.57)	(-1.64)				(-1.67)
*DE * Out of MS*			0.0645				0.0653
			(1.39)				(1.40)
*DE * Out of CA*			0.0313				0.0319
			(0.45)				(0.46)
Medium State-ATP	0.0560**			0.0191	0.0204	0.0205	0.0574**
	(2.64)			(1.26)	(1.37)	(1.38)	(2.69)
*Medium State-ATP * Into Medium State-ATP*					-0.0756	-0.0755	-0.0756
					(-0.53)	(-0.53)	(-0.53)
*Medium State-ATP * Out of DE*						0.173***	0.168***
						(15.75)	(13.50)
MS	0.0675**			0.0304**	0.0319**	0.0320**	0.0690**
	(2.44)			(2.63)	(2.59)	(2.59)	(2.43)
*MS * Into MS*					-0.0437	-0.0436	-0.0440
					(-0.91)	(-0.91)	(-0.92)
CA	0.0354			-0.00186	-0.00182	-0.00174	0.0354
	(1.24)			(-0.08)	(-0.08)	(-0.07)	(1.23)
Log Assets	-0.017***	-0.017***	-0.017***	-0.017***	-0.017***	-0.017***	-0.017***
	(-4.81)	(-4.65)	(-4.65)	(-4.75)	(-4.77)	(-4.78)	(-4.85)
Leverage	0.0728**	0.0738**	0.0737**	0.0737**	0.0734**	0.0737**	0.0721**
	(2.55)	(2.62)	(2.61)	(2.58)	(2.56)	(2.57)	(2.49)
CAPX/Assets	0.0214	0.00953	0.00946	0.0190	0.0202	0.0212	0.0234
	(0.19)	(0.08)	(0.08)	(0.17)	(0.18)	(0.19)	(0.21)
R&D/Assets	0.138*	0.134*	0.135*	0.140*	0.140*	0.141*	0.138*
	(1.98)	(1.90)	(1.91)	(2.02)	(2.02)	(2.02)	(2.00)
Engaged in R&D	0.037***	0.038***	0.038***	0.038***	0.038***	0.038***	0.037***
	(3.00)	(3.09)	(3.07)	(3.10)	(3.07)	(3.08)	(2.96)
PPE/Assets	-0.0617	-0.0643	-0.0638	-0.0644	-0.0648	-0.0652	-0.0618
	(-1.44)	(-1.47)	(-1.45)	(-1.50)	(-1.52)	(-1.53)	(-1.44)
N	3,733	3,733	3,733	3,733	3,733	3,733	3,733
R-sq	0.065	0.063	0.063	0.064	0.064	0.064	0.065

TABLE 8. FIRM VALUE AND CORPORATE LAW – TESTING THE LIMITED COMMITMENT PROBLEM

Table 8 shows the results of pooled panel Tobin's Q regressions on, respectively, *DE* (in Panel A) and *MS* (in Panel B) with the interactions with variables that capture firms for which the limited commitment problem is most pertinent: *Engaged in R&D, Large Customers*, *Contract Specificity*, and *Relationship Industry*. We always include the following controls: *Log Assets, Leverage, CAPX/Assets, R&D/Assets*, *Engaged in R&D, PPE/Assets.* The sample period is 1994-2012. We include year and firm fixed effects. All variables are defined in Table 1. Robust standard errors are clustered at the firm level. T-statistics are shown in parentheses below the coefficient estimates. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively.

Panel A. Limited Commitment Proxies Interactions with Delaware Incorporation

	(1)	(2)	(3)	(4)
Dependent variable:		*Tobin's Q*		
DE	-0.298***	-0.209***	0.457	-0.136*
	(-4.49)	(-3.49)	(1.40)	(-1.91)
*DE * Engaged in R&D*	-0.152**			
	(-2.40)			
*DE * Large Customer*		-0.0914***		
		(-2.83)		
*DE * Contract Specificity*			-1.173**	
			(-2.17)	
*DE * Relationship Industry*				-0.162**
				(-2.49)
Large Customer		-0.0249		
		(-1.01)		
Contract Specificity			14.19	
			(0.55)	
Engaged in R&D	0.144***	0.0543	0.0441	0.0568
	(2.63)	(1.34)	(0.59)	(1.40)
Standard Controls Included	Yes	Yes	Yes	Yes
Fixed Effects	Year, Firm	Year, Firm	Year, Firm	Year, Firm
N	80,767	80,767	21,561	78,216
R-sq	0.607	0.608	0.590	0.602

Panel B. Limited Commitment Proxies interactions with Managerial State Incorporation

	(1)	(2)	(3)	(4)
Dependent variable:		*Tobin's Q*		
MS	0.208***	0.150**	-0.0799	0.0739
	(2.67)	(2.11)	(-0.41)	(0.82)
*MS * Engaged in R&D*	0.0862			
	(1.21)			
*MS * Large Customer*		0.0707**		
		(1.95)		
*MS * Contract Specificity*			0.287	
			(0.74)	
*MS * Relationship Industry*				0.149*
				(1.63)
Large Customer		-0.0977***		
		(-5.05)		
Contract Specificity			4.582	
			(0.25)	
Engaged in R&D	0.0368	0.0569	0.0598	0.0587
	(0.80)	(1.40)	(0.80)	(1.45)
Standard Controls Included	Yes	Yes	Yes	Yes
Fixed Effects	Year, Firm	Year, Firm	Year, Firm	Year, Firm
N	80,767	80,767	21,561	78,216
R-sq	0.607	0.607	0.588	0.601

TABLE 9. FIRM VALUE AND CORPORATE LAW –
THE TRADEOFF BETWEEN THE LIMITED COMMITMENT PROBLEM AND MANAGERIAL MORAL HAZARD

Table 9 presents the results for pooled panel Tobin's Q regressions on *DE* and *MS* dummies respectively with the interactions with variables that capture firms for which the tradeoff between the limited commitment problem and managerial moral hazard is likely to be more severe. The interacted variables include *M&A in Industry* (with *DE* in Column (1) and *MS* in Column (2)) and *5% Block Ownership* (with *DE* in Column (3) and *MS* in Column (4)). We always include the following controls: *Log Assets, Leverage, CAPX/Assets, R&D/Assets*, *Engaged in R&D, PPE/Assets.* The sample period is 1994-2012. All variables are defined in Table 1. Robust standard errors are clustered at the firm level. T-statistics are shown in parentheses below the coefficient estimates. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively.

	(1)	(2)	(3)	(4)
Dependent variable:		*Tobin's Q*		
DE	-0.251***		-0.217***	
	(-4.02)		(-3.60)	
*DE*M&A in Industry*	-0.215***			
	(-3.33)			
*DE*5% Block Ownership*			-0.185*	
			(-1.71)	
MS		0.184**		0.150**
		(2.50)		(2.08)
*MS*M&A in Industry*		-0.00161		
		(-0.01)		
*MS*5% Block Ownership*				0.225*
				(1.79)
M&A in Industry	-0.00947	-0.00481		
	(-0.17)	(-0.09)		
5% Block Ownership			-0.247***	-0.421***
			(-2.79)	(-6.97)
Standard Controls Included	Yes	Yes	Yes	Yes
Fixed Effects	Year, Firm	Year, Firm	Year, Firm	Year, Firm
N	80,746	80,746	80,746	80,746
R-sq	0.608	0.607	0.608	0.607

TABLE 10. FIRM VALUE AND CORPORATE LAW – DELAWARE (RE)INCORPORATION, SHAREHOLDER RIGHTS, AND DUAL CLASS STOCK.

Table 10 shows the results of pooled panel Tobin's Q regressions on *DE* with the interactions with variables that capture firms for which the limited commitment problem is likely to be less relevant. The interacted variables include *Dual Class* and four different governance indices: *G-Index*, *E-Index*, *I-Index,* and *C-Index*. All columns include year and firm fixed effects. We also always include the following controls: *Log Assets, Leverage, CAPX/Assets, R&D/Assets*, *Engaged in R&D, PPE/Assets.* The sample period is 1978-2007. Individual interactions vary in their availability, as noted by the observation count and year span for each estimated column. All variables are defined in Table 1. Robust standard errors are clustered at the firm level. T-statistics are shown in parentheses below the coefficient estimates. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively.

Panel A. Delaware (Re)incorporation, Dual Class, and G-Index

	(1)	(2)	(3)	(4)
Dependent variable:		*Tobin's Q*		
DE	-0.143**	-0.158**	-0.136**	-0.221***
	(-2.21)	(-2.58)	(-2.08)	(-2.68)
*DE * Dual Class*		0.263**		
		(2.00)		
Dual Class		-0.141**		
		(-2.34)		
G-Index			-0.0108*	
			(-1.77)	
*G-Index * DE*				-0.000491
				(-0.08)
*G-Index * Not DE*				-0.0112*
				(-1.82)
Log Assets	-0.164***	-0.174***	-0.164***	-0.165***
	(-6.84)	(-7.62)	(-6.47)	(-6.55)
Leverage	0.0314	0.0611	0.0348	0.0361
	(0.40)	(0.83)	(0.42)	(0.44)
CAPX/Assets	1.330***	1.434***	1.299***	1.308***
	(6.92)	(7.37)	(6.59)	(6.66)
Engaged in R&D	0.0989**	0.0863**	0.0894**	0.0883**
	(2.30)	(2.11)	(2.03)	(2.00)
R&D/Assets	0.00282	0.0294	0.0936	0.0859
	(0.00)	(0.04)	(0.11)	(0.10)
PPE/Assets	-0.330***	-0.371***	-0.291***	-0.303***
	(-3.22)	(-3.66)	(-2.73)	(-2.84)
Fixed Effects:	Year, Firm	Year, Firm	Year, Firm	Year, Firm
N	22,139	23,939	21,435	21,435
R-sq	0.714	0.710	0.715	0.715

Panel B. Delaware (Re)incorporation, E-Index, I-Index, and C-Index

	(1)	(2)	(3)	(4)
Dependent variable:		*Tobin's Q*		
DE	-0.158**	-0.207**	-0.142*	-0.215**
	(-2.16)	(-2.39)	(-1.95)	(-2.44)
E-Index	-0.00464			
	(-0.35)			
*E-Index * DE*		0.00982		
		(0.54)		
*E-Index * Not DE*		-0.0153		
		(-0.97)		
I-Index			-0.0307*	
			(-1.84)	
C-Index			0.0426*	
			(1.77)	
*I-Index * DE*				-0.0230
				(-1.04)
*I-Index * Not DE*				-0.0382*
				(-1.91)
*C-Index * DE*				0.0860**
				(2.32)
*C-Index * Not DE*				0.0161
				(0.52)
Log Assets	-0.196***	-0.196***	-0.201***	-0.201***
	(-7.21)	(-7.22)	(-7.77)	(-7.77)
Leverage	-0.0413	-0.0427	-0.0585	-0.0625
	(-0.46)	(-0.48)	(-0.66)	(-0.70)
CAPX/Assets	1.374***	1.382***	1.485***	1.490***
	(6.20)	(6.26)	(6.64)	(6.70)
Engaged in R&D	-0.134**	-0.132**	-0.131**	-0.128**
	(-2.52)	(-2.48)	(-2.50)	(-2.43)
R&D/Assets	-0.587	-0.585	-0.742	-0.730
	(-0.71)	(-0.71)	(-0.91)	(-0.89)
PPE/Assets	-0.345***	-0.351***	-0.348***	-0.352***
	(-2.81)	(-2.86)	(-2.89)	(-2.93)
Fixed Effects:	Year, Firm	Year, Firm	Year, Firm	Year, Firm
N	17,937	17,937	18,500	18,500
R-sq	0.718	0.718	0.715	0.715

Appendix to

THE FINANCIAL VALUE OF CORPORATE LAW

EVIDENCE FROM (RE)INCORPORATIONS

K.J. Martijn Cremers and Simone M. Sepe

APPENDIX TABLE A.1: FIRM VALUE AND DELAWARE INCORPORATION – REVERSE CAUSALITY TEST.

Appendix Table A.1 presents reverse causality regressions to explain the decision to incorporate into Delaware at the IPO stage (in Columns (1) and (2)) and the decision to reincorporate into or out of Delaware subsequently (in Columns (3) and (4)) as a function of the valuation of the firm (as captured by *Q*) plus other characteristics. Columns (1) - (2) include a sample of 3,724 IPOs and use logit regressions for whether or not the firm incorporates into Delaware at the IPO. Columns (3) - (4) include our full sample and use Cox proportional hazard models (see Greene, 2000), reporting the marginal likelihood of the hazard ratio using robust standard errors clustered at the firm level, adjusting the Tobin's Q for the median *Q* that year of all firms in our sample with the same 4-digit SIC industry code. All columns also include the following controls: *Log Assets, Leverage, CAPX/Assets, R&D/Assets*, *Engaged in R&D, PPE/Assets.* All variables are defined in Table 1. The sample in the table refers to the time period 1994-2012. T-statistics are shown in parentheses below the coefficient estimates. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively.

	(1)	(2)
	COX	
Dependent:	Enter DE	Leave DE
Sample	Only Firms Incorporated outside DE	Only Firms Incorporated in DE
Tobin's Q	0.076	-0.063
	(1.21)	(1.31)
MS	-0.115	
	(0.61)	
CA	4.271***	
	(3.13)	
Log Assets	0.081	-0.033**
	(1.53)	(1.98)
Leverage	0.268	-0.305
	(0.69)	(1.43)
CAPX/Assets	2.381	-0.469
	(1.41)	(0.53)
R&D/Assets	1.876**	-1.966**
	(2.35)	(2.28)
Engaged in R&D	-0.056	0.056
	(0.33)	(0.47)
PPE/Assets	-1.418**	0.187
	(2.46)	(0.75)
N	32,275	48,448
# of firms	4,428	6,892
Pseudo R-sq	331	92

APPENDIX TABLE A.2: FIRM VALUE AND CORPORATE LAW - DELAWARE INCORPORATION

Appendix Table A.2 presents results for the association between Delaware incorporation (*DE*) and firm value between 1994 and 2012, like Table 3 though now using the Tobin's Q adjusted for the delisting-price, $Q_{Delisting\text{-}price}$.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:			$Q_{Delisting\text{-}price}$					
DE	0.0197	0.0665***	0.0323	0.112***	-0.259***			
	(1.04)	(2.82)	(1.20)	(3.52)	(-4.42)			
State-ATP of 1 (not DE)						0.0300		
						(0.27)		
MS			-0.00848	0.0194			0.186***	
			(-0.28)	(0.55)			(2.65)	
CA			0.175***	0.313***				0.634***
			(3.01)	(4.38)				(5.16)
*DE * 2002-2012*		-0.100***		-0.174***				
		(-3.55)		(-4.34)				
*MS * 2002-2012*				-0.0668				
				(-1.48)				
*CA * 2002-2012*				-0.354***				
				(-3.83)				
Fixed Effects	Year, SIC	Year, SIC	Year, SIC	Year, SIC	Year, Firm	Year, Firm	Year, Firm	Year, Firm
N	78,216	78,216	78,216	78,216	80,767	80,767	80,767	80,767
R-sq	0.264	0.264	0.265	0.265	0.591	0.591	0.591	0.592

APPENDIX TABLE A.3, PANEL A AND B: CHANGES IN FIRM VALUE AND CORPORATE LAW

Appendix Table A.3, Panel A presents pooled panel first difference regressions with the dependent variables being the change in Tobin's Q adjusted for the delisting price ($\Delta Q_{Delisting\text{-}price}$) in the next 1, 2, 3, and 4 years after changes in the independent variable *DE* (ΔDE). All dependent variables are adjusted for the median *Q* in the firm's industry that year. All specifications also include year fixed effects. As additional independent variables, we include the following: Δ*Log Assets,* Δ*Leverage,* Δ*CAPX/Assets,* Δ*R&D/Assets*, Δ*Engaged in R&D,* Δ*PPE/Assets*. Sample period is 1994-2012, but it varies per column due to availability of lagged data and is reported for each column. Columns (1) – (4) present results for firms not incorporated into Delaware before the decision to reincorporate (ΔDE * *Into DE*, which is a dummy equal to one for firms incorporated elsewhere that decide to reincorporate into Delaware). Columns (5) – (8) present results for firms incorporated into Delaware before the decision to reincorporate (ΔDE * *Out of DE*, which is a dummy equal to one for firms incorporated in Delaware that decide to reincorporate elsewhere). Appendix Table A.3, Panel B includes analogous regressions for reincorporations into and out of Managerial States, using the analogously defined ΔMS * *Iinto MS* and ΔMS * *Out of MS*. Robust standard errors are clustered at the firm level. All dependent, independent, and control variables are defined in Table 1. T-statistics of the regression coefficients are shown in parentheses below the coefficient estimates. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively.

APPENDIX TABLE A.3, Panel A. Changes in Firm Value and Reincorporations Into and Out of Delaware

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	$\Delta Q_{Delisting\text{-}price}$ *(Median-Adjusted at the Industry-Year Level)*							
Sample	All firms not incorporated in DE before the change				All firms incorporated in DE before the change			
Years ahead for change	1	2	3	4	1	2	3	4
Δ*DE * Into DE*	-0.142*	-0.101	-0.287**	-0.254**				
	(-1.69)	(-0.90)	(-2.48)	(-2.14)				
Δ*DE * Out of DE*					0.154**	0.0612	0.186**	0.239**
					(2.10)	(0.86)	(2.09)	(2.48)
Δ*Log Assets*	-0.382***	-0.645***	-0.721***	-0.843***	-0.457***	-0.648***	-0.624***	-0.700***
	(-11.74)	(-16.48)	(-14.62)	(-15.49)	(-19.73)	(-18.87)	(-15.47)	(-14.92)
Δ*Leverage*	0.205**	0.576***	0.618***	0.774***	0.341***	0.534***	0.636***	0.736***
	(2.38)	(5.25)	(4.81)	(5.48)	(5.15)	(6.53)	(6.61)	(7.10)
Δ*CAPX/Assets*	-0.666***	-0.972***	-0.869***	-0.668***	-0.760***	-0.872***	-0.866***	-1.027***
	(-3.50)	(-4.99)	(-4.36)	(-3.07)	(-4.92)	(-4.49)	(-4.33)	(-4.84)
Δ*R&D/Assets*	0.358	0.615*	0.162	-0.582*	-0.0217	0.276	-0.0731	-0.605***
	(1.17)	(1.76)	(0.47)	(-1.73)	(-0.13)	(1.49)	(-0.36)	(-2.73)
Δ*PPE/Assets*	-0.0429	0.0330	0.195	-0.133	-0.287**	0.134	0.0107	0.203
	(-0.27)	(0.20)	(0.97)	(-0.66)	(-2.26)	(0.73)	(0.06)	(0.96)
N	24,114	20,855	18,083	15,741	35,343	30,010	25,539	21,704
R-sq	0.037	0.061	0.059	0.061	0.065	0.079	0.070	0.066

APPENDIX TABLE A.3, Panel B. Changes in Firm Value and Reincorporations Into and Out of Managerial States

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable:	$\Delta Q_{Delisting\text{-}price}$ *(Median-Adjusted at the Industry-Year Level)*							
Sample	All firms not incorporated in MS before the change				All firms incorporated in MS before the change			
Years ahead for change	1	2	3	4	1	2	3	4
Δ*MS * Into MS*	0.0709**	0.132**	0.197***	0.238***				
	(2.48)	(2.55)	(3.04)	(3.47)				
Δ*MS * Out of MS*					-0.0112	-0.0561*	-0.101**	-0.138**
					(-0.48)	(-1.65)	(-2.28)	(-2.55)
Δ*Log Assets*	-0.447***	-0.656***	-0.655***	-0.742***	-0.367***	-0.618***	-0.665***	-0.779***
	(-21.58)	(-21.87)	(-18.45)	(-18.09)	(-8.10)	(-11.90)	(-9.64)	(-10.21)
Δ*Leverage*	0.307***	0.524***	0.633***	0.747***	0.236**	0.643***	0.608***	0.769***
	(5.14)	(7.07)	(7.36)	(7.92)	(2.14)	(4.62)	(3.54)	(4.35)
Δ*CAPX/Assets*	-0.707***	-0.944***	-0.912***	-0.904***	-0.789***	-0.820***	-0.737***	-0.776**
	(-5.25)	(-5.80)	(-5.59)	(-5.21)	(-2.99)	(-3.36)	(-2.61)	(-2.55)
Δ*R&D/Assets*	0.0353	0.273	-0.133	-0.666***	0.387	1.108*	0.969*	-0.120
	(0.23)	(1.60)	(-0.72)	(-3.38)	(0.89)	(1.92)	(1.74)	(-0.21)
Δ*PPE/Assets*	-0.217*	0.189	0.111	0.0372	-0.112	-0.302	-0.0567	0.153
	(-1.92)	(1.27)	(0.69)	(0.21)	(-0.56)	(-1.38)	(-0.21)	(0.58)
N	45,667	38,874	33,180	28,321	13,790	11,991	10,442	9,124
R-sq	0.061	0.076	0.069	0.065	0.030	0.058	0.056	0.061

APPENDIX TABLE A.4. CORPORATE LAW AND CEO TURNOVER

Appendix Table A.4 summarizes analysis from logistic regressions relating the occurrence of *Forced CEO Turnover* in Columns (1) and (2) and *CEO Turnover* in Columns (3) and (4) to key independent variables. As key independent variables we include: *DE, MS, Abnormal Returns*, and their interaction. We obtain *Forced CEO Turnover* and *CEO Turnover* from the data file used by Jenter and Kanaan (2010). The coefficients presented are of the marginal likelihoods. Standard errors are clustered at the firm level. All independent and control variables are defined in Table 1. T-statistics are shown in parentheses below the coefficient estimates. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively.

	(1)	(2)	(3)	(4)
Dependent variable in Logit:	*Forced CEO Turnover*		*CEO Turnover*	
Abnormal Return	-1.835***	-2.562**	-0.475***	-0.652***
	(4.57)	(2.07)	(6.04)	(4.12)
DE	-0.020	0.092	-0.124**	-0.088
	(0.09)	(0.22)	(1.94)	(1.24)
MS	-0.026	0.395	-0.048	-0.025
	(0.10)	(0.67)	(0.63)	(0.30)
*Abnormal Return*DE*		0.295		0.230
		(0.36)		(1.33)
*Abnormal Return*MS*		1.397		0.134
		(1.21)		(0.64)
# of forced turnovers	141			
# of turnovers			894	
N	9,251	9,251	39,326	39,326