

# STAKEHOLDER ORIENTATION AND FIRM VALUE

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## *Abstract*

This paper analyzes the relation between enhanced director discretion to consider stakeholder interests (“stakeholder orientation”) and firm value by considering the quasi-natural experiment provided by the staggered adoption of directors’ duties laws in 35 U.S. states from 1984 to 2006. We find that these laws result in significant increases in shareholder value, especially for firms that are larger, more complex or innovative and with stronger stakeholder relationships. Our results suggest that stakeholder orientation creates value for some firms by reducing contracting costs with stakeholders and mitigating the externalities stakeholders may bear due to conflicts of interests with shareholders.

**Keywords: directors’ duties statutes, stakeholder orientation, firm value, antitakeover statutes, bonding hypothesis, stakeholder relationships, endogenous risks, innovation**

**JEL Classifications: G32, G34, K22, O32**

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The results in the Internet Appendix are available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3363686](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3363686).

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Since the pioneering work of Garvey and Hanka (1999) and Bertrand and Mullainathan (1999, 2003), many studies have used the staggered adoption of state antitakeover laws to identify changes in corporate governance that are plausibly exogenous to individual firms (see Karpoff and Wittry, 2018, for a review). Directors' duties laws – also known as “corporate constituency statutes” or “stakeholder laws” or “non-shareholder constituency statutes” (Bainbridge, 1992) – are one kind of state antitakeover legislation that has now been adopted by 35 U.S. states. While these laws' exact provisions vary, their core content is the same: the statutes enable directors to consider the impact of corporate decisions (such as whether to accept an acquisition offer) on an expanded set of stakeholder interests, including the interests of employees, suppliers, customers, creditors and local communities.

As compared to other antitakeover laws, however, directors' duties laws have not been studied extensively in the financial economics literature (Karpoff and Wittry, 2018). A possible explanation for this is that, ever since Milton Friedman's seminal 1970 article (Friedman, 1970; see also Friedman, 1962), the shareholder model of the corporation, under which share value maximization provides the exclusive benchmark for managerial performance, has come to dominate the stakeholder model in corporate finance and economics (Magill, Quinzii, and Rochet, 2015). Yet, the enactment of directors' duties laws (“DDLs”) engendered a heated debate in the legal academic literature during the 1990s, reviving perennial questions about the desirability of a shareholder or stakeholder model of the corporation (Bainbridge, 1992), and the appropriate allocation of power between boards and shareholders (Bratton, 1989; 1993).<sup>1</sup>

Several recent papers have reexamined the consideration of stakeholder interests by corporate directors, both theoretically and empirically. Magill, Quinzii, and Rochet (2015), for example, developed a theoretical model supporting the efficiency of a stakeholder model of the corporation, under which directors have discretion to act in the interest of a broader group of stakeholders rather than just shareholders. In particular, they argue that firms may be exposed to certain risks arising

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<sup>1</sup> In the financial economics literature, the only echo of that debate was the inclusion of DDLs in the G-Index of Gompers, Ishii, and Metrick (2003) as one of 24 governance features capturing weaker shareholder rights. An exception is Alexander, Spivey and Marr (1997), who study DDLs enacted in three states.

from their own investment and production decisions (i.e., “endogenous risks”), which may generate negative externalities on stakeholders but not shareholders. As a result, stakeholders under-invest in their relationship with the firm. Magill, Quinzii, and Rochet show that maximizing the total welfare of the stakeholders (rather than shareholder welfare alone) can help internalize these externalities, especially when firms are large and complex, and invest more in riskier, innovative and long-term projects. Along similar lines, Hart and Zingales (2017, p. 270) recently concluded that “shareholder value maximization is not the appropriate goal of a company” when a firm’s activities are “non-separable,” that is, carry externalities that cannot be undone through other activities due to market or contract incompleteness.<sup>2,3</sup>

Further, recent empirical studies provide evidence that empowering boards to protect stakeholder interests against the threat of a takeover might serve a positive corporate governance function for a subset of firms (Cen, Dasgupta, and Sen, 2015; Johnson, Karpoff, and Yi, 2015, 2018; Cremers, Litov, and Sepe, 2017). In addition, major governance players like large institutional investors seem increasingly willing to accept, or even advocate for, a corporate model with increased stakeholder protection (Flammer and Kacperczyk, 2015; Sorkin, 2018).

Motivated by these theoretical, empirical and practice developments, in this paper we analyze the value implications for shareholders of “stakeholder orientation” – that is, greater director discretion to consider stakeholder interests in corporate decision-making – by exploiting the quasi-natural experiment provided by the staggered adoption of DDLs over the period 1983 to 2006. Other recent studies have examined the impact of DDLs on innovation (Atanassov, 2013a; Flammer and Kacperczyk, 2015), procurement contracts (Flammer, 2015), investments by high fiduciary duty institutions (Geczy et al., 2015), and the cost of debt (Gao, Li, and Ma, 2018). As

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<sup>2</sup> As contract incompleteness is a source of market incompleteness, we henceforth only refer to market incompleteness.

<sup>3</sup> Allen, Carletti, and Marquez (2015) also provide theoretical work on stakeholder governance in a model of imperfect competition, finding that stakeholder-oriented firms take more precautions to avoid bankruptcy in order to protect their employees and suppliers. They derive equilibrium outcomes in which stakeholder-oriented firms are more valuable than shareholder-oriented firms when uncertainty about marginal costs exceeds uncertainty over demand.

far as we know, however, this paper is the first to systematically examine the impact of DDLs on stakeholder orientation and shareholder value.<sup>4</sup>

Our main finding is that the passage of DDLs results in an increase in the Tobin's Q of the affected firms that is both statistically and economically significant. This finding is robust to various methodologies, including pooled panel first difference regressions; pooled panels with higher dimensional fixed effects that control for unobserved and time-varying state-of-location and industry sources of variation; the incorporation of possible selection effects through the creation of a matched sample; and a battery of alternative value measures including stock returns, profitability ratios, and a portfolio approach that can be interpreted as a long-term event study. We also find that the increase in Tobin's Q is more pronounced for larger and more complex firms, more innovative firms, and firms where stakeholder investments are more relevant. Overall, our results support the view that stakeholder orientation promotes long-term value creation for some firms by reducing contracting costs with stakeholders (the "bonding hypothesis") and mitigating the externalities that stakeholders may bear due to conflicts of interests with shareholders (the "stakeholder model hypothesis").

We begin our analysis by addressing the preliminary concern that specific state-level circumstances can explain a state's propensity to pass a DDL, and investigate whether the passage of these laws relates to state-level institutional, political and economic characteristics (similar to Karpoff and Wittry, 2018). With the exception of the prior adoption of fair price laws,<sup>5</sup> we find no significant predictors for the adoption of DDLs. This suggests that the adoption of these laws is

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<sup>4</sup> Earlier studies (e.g., Atanassov, 2013a; Flammer and Kacperczyk, 2015) considered the effect of DDLs on firm value but only in auxiliary tests, finding fairly weak and inconsistent results. For instance, Atanassov (2013a) only considers  $\ln(\text{Tobin's } Q)$  regressions that include interactions of DDLs with other antitakeover statutes, while Flammer and Kacperczyk (2015) do not find a significant association between DDLs and ROA and only a marginally significant correlation with Tobin's Q. Meanwhile, both studies fail to control for the confounding effects of unobserved, time-variant heterogeneity within industries and other antitakeover laws and, thus, their models are misspecified according to Gormley and Matsa (2014, 2016) and Karpoff and Wittry (2018). The latter controls are especially relevant as we find not including dummies for the other antitakeover laws attenuates the value effect of DDLs toward zero.

<sup>5</sup> Fair price laws are another type of antitakeover law, which typically prohibit business combinations between a target firm and a large stockholder unless certain conditions (involving supermajority approval or a stipulated price) are met.

not associated with the then-prevailing market and economic environments, consistent with our central identification assumption that DDLs identify changes in corporate governance that are plausibly exogenous.

We then estimate the relationship between the adoption of DDLs and the long-term value of firms incorporated in the enacting states over the period 1983 to 2015 using pooled panel Tobin's Q regressions that include firm, U.S. Census division-of-location-by-year,<sup>6</sup> and industry-by-year fixed effects. We find that the increased orientation of directors toward stakeholder interests brought about by the passage of DDLs results in a positive and statistically significant increase in firm value for shareholders, with an economic significance of 3.8% in our baseline specification. Regressions of changes in Tobin's Q on an indicator for the passage of DDLs give similar results. Results are further robust to the inclusion of state-of-location-by-year fixed effects, suggesting that unobserved, time-varying state factors (e.g., political economy or business cycle variables) are not driving our main results. We confine the inclusion of state-by-year fixed effects to a robustness analysis since the majority of affected firms and non-Delaware unaffected firms are incorporated and located in the same state, leaving a limited number of firms to identify the value implications of DDLs for shareholders and restricting the counterfactuals almost entirely to Delaware firms.

We next consider whether selection effects (such as reincorporation) might explain the increase in value of firms incorporated in states that adopt a DDL, by employing a difference-in-differences methodology in a matched sample. We construct this sample by matching the firms in each of the 35 DDL-enacting states (treated firms) to a control firm operating in the same industry, located in the same census division and with similar ex-ante characteristics but incorporated in a state without a DDL. We find that the difference in the Tobin's Q between treated and control firms, as well as in firm characteristics capturing the importance of stakeholder relationships (and hence a possible selection effect), is insignificant in the three-year period preceding the laws' passage. Conversely,

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<sup>6</sup> The U.S. Census Bureau classifies census divisions by grouping states and the District of Columbia into the following nine geographical subdivisions: New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific. We interact a firm's division-of-location with year dummies to control for unobserved, time-varying sources of heterogeneity within headquarter division geographies ("HQ division") that may correlate with DDLs and firm value.

and consistent with our pooled panel regressions, the difference in the Tobin's Q is significantly positive in the three-year period following the laws' passage.

We also verify that our pooled panel and matched sample findings on Tobin's Q are robust to using a variety of alternative proxies of firm value, such as risk-adjusted stock returns, excess stock returns, Total Tobin's Q (Peters and Taylor, 2017), and profitability ratios, as well as to a long-term event study based on our matched sample using portfolios that buy (sell) treated (control) stocks around the time their (matched sample counterpart's) state of incorporation adopts a DDL. We follow this analysis by exploring whether the long-term value creation we document for firms with greater stakeholder orientation might partially be explained by changes in operational policy, finding evidence of increases in overall innovation and financial soundness for this subset of firms.

We then examine potential transmission mechanisms through which stakeholder orientation in director decision-making, as made possible by the passage of DDLs, contributes to increased long-term firm value. Drawing on prior theoretical and empirical work, we focus on two distinct, yet partially overlapping and complementary hypotheses. The first is the "bonding hypothesis" that empowering boards with enhanced discretion to protect stakeholder interests against the disruption caused by takeovers reduces uncertainty in stakeholder investments, thereby decreasing a firm's cost of contracting and, in the long-term, increasing a firm's value (Knoeber, 1986; Laffont and Tirole, 1988; Shleifer and Summers, 1988; Johnson, Karpoff, and Yi, 2015). The second is the "stakeholder model hypothesis," which focuses on the more general implications of DDLs for possible conflicts of interests between shareholders and stakeholders. Under this hypothesis, stakeholder orientation would improve long-term firm performance by internalizing the externalities that a firm's endogenous risks impose on stakeholders in incomplete markets, especially when firms are large and more invested in risky, innovative and long-term projects (Jensen, 2001; Magill, Quinzii, and Rochet, 2015; Hart and Zingales, 2017).<sup>7</sup>

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<sup>7</sup> Magill, Quinzii and Rochet (2015) are agnostic as to whether stakeholder orientation would benefit shareholders. We hypothesize that if contract incompleteness and stakeholder underinvestment are at the core of the endogenous risk problem they examine, stakeholder orientation should benefit shareholders in addition to stakeholders.

Consistent with both these hypotheses, we find that treated firms in which stakeholder relationships are likely more relevant – such as firms that are larger and have more complex operations, have a large customer, are in a strategic alliance, where long-term investments are more important, and are more labor- or creditor- intensive – experience a higher increase in Tobin’s Q.

We also examine an alternative economic channel that might explain the increase in firm value for firms incorporated in states with effective DDLs: the “bargaining power hypothesis” (DeAngelo and Rice, 1983; Stulz, 1988; Harris, 1990; Kadyrzhanova and Rhodes-Kropf, 2011). Under this hypothesis, DDLs matter for firm value because they increase the bargaining power of directors in a takeover context, enabling directors to obtain a higher purchasing price for the benefit of the target’s shareholders. We do not find evidence consistent with this hypothesis.

In conclusion, this paper documents that shareholder value increases when directors are permitted enhanced discretion to consider stakeholder interests in corporate decision-making via DDLs, especially for firms that are larger, more complex or innovative and with stronger stakeholder relationships. Accordingly, our results can be explained by either the bonding hypothesis (where the stakeholder orientation creates value for some firms by reducing contracting costs with stakeholders) or the stakeholder model hypothesis (where stakeholder orientation mitigates the externalities stakeholders may bear due to conflicts of interests with shareholders). Our study contributes, first, to the recent theoretical and empirical scholarship examining the relationship between stakeholder orientation in director decision-making and firm value (Cen, Dasgupta, and Sen, 2015; Johnson, Karpoff, and Yi, 2015, 2018; Magill, Quinzii, and Rochet, 2015; Cremers, Litov, and Sepe, 2017; Hart and Zingales, 2017).

Second, the paper contributes to the broader literature examining the value implications of corporate governance (e.g., Demsetz and Lehn, 1985; Morck, Shleifer, and Vishny, 1988; Lang and Stulz, 1994; Yermack, 1996; Daines, 2001; Gompers, Ishii, and Metrick, 2003; Bebchuk, Cohen, and Ferrell, 2009; Cuñat, Gine, and Guadalupe, 2012; Cremers and Ferrell, 2014; Cremers, Litov, and Sepe, 2017), including the literature that uses state statutes (e.g., Garvey and Hanka, 1999; Bertrand and Mullainathan, 1999, 2003; Qiu and Yu, 2009; Francis et al., 2010; Giroud and Mueller, 2010; Atanassov, 2013; Gormley and Masta, 2016; Karpoff and Wittry, 2018).

Third, our results add to the recent body of work seeking to correct misperceptions in the earlier financial economics literature concerning antitakeover laws (Cremers and Sepe, 2015; Catan and Kahan 2016; Gormley and Matsa, 2016; Cain, McKeon, and Solomon, 2017; Karpoff and Witty, 2018). Consistent with these papers, we provide evidence that the effect of DDLs is not confined only to a firm's takeover protection but expands to directors' ordinary decision-making.

### I. Legal Background

In the typical account of DDLs as given in the financial economics literature, these laws enable directors to consider the welfare interests of all firm stakeholders, in addition to the interests of shareholders, in deciding whether to approve or resist an acquisition offer (e.g., Gompers, Ishii, Metrick, 2003; Karpoff and Witty, 2018). However, this account limits the relevance of DDLs to only decisions related to acquisitions, which constitutes an overly restrictive interpretation of the actual features of these laws.

In fact, most DDLs apply significantly more broadly. Only nine states enacted DDLs that expand the scope of directors' discretion in the takeover context or change-of-control situations exclusively.<sup>8</sup> In the other 26 enacting states, DDLs enable the consideration of stakeholder interests in any director decisions (Keay, 2013). In addition, 24 out of 35 enacting states specify that considering the long-term interest of the corporation *also* provides an appropriate legal basis for board decisions (Keay, 2013).<sup>9</sup> This suggests that most states deem directorial authority to consider non-shareholder interests as instrumental to the maximization of long-term firm value.

It follows that the theoretical and policy questions implicated by DDLs are not limited to the takeover context. Rather, they extend to quintessential questions about the role and purpose of the corporation. Thus, it is unsurprising that, following the famous debate on those questions by

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<sup>8</sup> These states are Iowa, Kentucky, Louisiana, Maryland, Missouri, Oregon, Rhode Island, South Dakota, and Tennessee. Further, four states (Connecticut, South Dakota, Tennessee, and Vermont) restrict the applicability of DDLs to public companies only, and two states (Georgia and Maryland) make enhanced director discretion an opt-in choice by allowing corporations to include an ad-hoc provisions in their corporate charters.

<sup>9</sup> Only Georgia, Indiana, Louisiana, Maine, Maryland, Missouri, Nebraska, Tennessee, and Wisconsin do not expressly authorize the consideration of the long-term interest of the corporation. Conversely, Idaho makes the consideration of this interest a mandatory, rather than a permissive, requirement for director decision-making.

Adolph Berle and Merrick Dodd in the 1930s (Berle, 1931, 1932; Dodd, 1932), the corporate law scholarship on DDLs has primarily focused on two, partially overlapping, strands of research.

Under the first strand, legal scholars debated whether these laws imported a “stakeholderist” deviation from the shareholder maximization norm, creating a new class of directors’ fiduciary duties toward non-shareholder constituencies (Bainbridge, 1992; Ho, 2010). Under the second, DDLs occasioned renewed debate over contractarian versus institutionalist conceptions of the corporation. Defending a view of directors as mere agents of the shareholders (Jensen and Meckling, 1976; Easterbrook and Fischel, 1983), contractarians defended the idea that DDLs should be restrictively interpreted. On the contrary, institutionalists supported an expansive interpretation on the argument that only enhanced authority allows the board to efficiently coordinate economic activities within complex social organizations (Bratton, 1989, 1993).

In more recent corporate law literature, the emerging consensus is that DDLs do not trump shareholder primacy, even though they expand the zone of directorial discretion and so board authority (Fisch, 2006; Barzuza, 2009; Geczy et al., 2015). Enhanced board authority, however, only operates to protect directors against fiduciary actions brought by shareholders against directorial decisions that consider stakeholder interests in addition to shareholder interests, consistent with Maskin and Tirole’s (2004) theory that such enhancement might be necessary to avoid pandering toward the majority (here, the shareholders) and oppression of minorities (here, the stakeholders). However, stakeholder orientation does not grant stakeholders an “offensive” claim against directors to force them to consider stakeholder interests (Keay, 2013).<sup>10</sup> In sum, DDLs discretionally enable, rather than mandate, directors to embrace stakeholder orientation.

## **II. Data and Empirical Strategy**

### *A. Sample Selection*

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<sup>10</sup> DDLs provide for permissive (rather than mandatory) language in all 35 enacting states. Connecticut’s law was the only one that originally mandated that directors “shall” consider other constituencies, but the statute was amended in 2010 to replace the mandatory language with a permissive grant of authority (“may”).

Our data come from several sources. The main sample covers the period 1983 to 2015 and consists of 101,989 firm-year observations for all industrial firms (excluding utilities and financials) in the Compustat database, with publicly traded stock price observations in the CRSP database, incorporated in the U.S., and without missing observations for the dependent and independent variables of our baseline pooled panel regression model. Appendix A provides variable descriptions.

To avoid any overlap with the adoption and subsequent invalidation of first-generation antitakeover legislation,<sup>11</sup> we begin our sample period in 1983 and end it in 2015, five years after the DDL of Texas, which was the last state to adopt such a law, became applicable to all firms incorporated in the state.<sup>12</sup>

### *B. Definition of Variables and Summary Statistics*

The key explanatory variable, *Directors' Duties Law (DDL)* is an indicator of whether a firm's state of incorporation has enacted an effective DDL. Our information on when DDLs become effective in each state is provided by Barzuza (2009) and Karpoff and Wittry (2018). We provide a catalogue of each of the enacting states' effective month/year dates in Internet Appendix Table IA.II.

We construct *DDL* using historical incorporation information from Compact Disclosure and the CRSP Historical U.S. stock database, which is available from the University of Chicago (rather than through WRDS). Compact Disclosure covers historical incorporation information from 1988 to 2006 and CRSP spans the period 1990 to 2015. We approximate the state of incorporation for

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<sup>11</sup> First-generation laws were enacted by 38 states between 1968 and 1981 and provided substantial takeover protection to firms incorporated in enacting states—so much so, that they were eventually invalidated by the U.S. Supreme Court decision in *Edgar v. Mite Corp.* in 1982. As detailed in Karpoff and Wittry (2018), these laws likely create considerable estimation noise for researchers interested in the effect of second-generation laws and so we follow here to mitigate this obfuscation by starting the panel in 1983.

<sup>12</sup> Texas adopted a DDL in 2003 but allowed firms to voluntarily opt-in prior to 1/1/2006. However, even after 1/1/2006, only newly incorporated Texas firms were bound to the DDL, while firms incorporated in the state prior to 2006 were still allowed to voluntarily opt-in. It is only after 1/1/2010, that Texas' law became directly applicable to all firms incorporated in the state. Following Karpoff and Wittry (2018), we consider 2006 as the effective date of Texas' DDL and, hence, refer to the effective dates of DDLs in other states too, although in all the enacting states, except Texas, the effective dates always coincide with the adoption years.

the years 1983 to 1987 by backfilling firm-year incorporation data using the oldest data point of historical incorporation information available (generally from Compact Disclosure, and otherwise from CRSP). This assumes that firms did not reincorporate between 1983 and 1987, though we verify that our results are robust if we use samples that commence in any year between 1983 and 1987. With the effective dates and historical incorporation data, we create the indicator variable, *DDL*, which equals one in the effective year and afterwards for all firms incorporated in the enacting states, and zero in the years prior to the effective date, and always equals zero for corporations in states that never adopted a DDL in our sample.

Our main dependent variable is firm value, which we primarily measure using Tobin's  $Q$  ( $Q$ ), consistent with prior empirical work investigating the value relevancy of various external and internal corporate governance arrangements (Demsetz and Lehn, 1985; Morck, Shleifer, and Vishny, 1988; Lang and Stulz, 1994; Yermack, 1996; Daines, 2001; Gompers, Ishii, and Metrick, 2003; Bebchuk, Cohen, and Ferrell, 2009; Cuñat, Gine, and Guadalupe, 2012; Cremers, Litov, and Sepe, 2017). Following Fama and French (1992), we measure  $Q$  as the ratio of market to book value of assets using financial data from Compustat.

We acknowledge, however, that  $Q$  is an imperfect measure of firm value since it can also proxy for a firm's growth opportunities and is subject to potential measurement error (Erickson and Whited, 2000, 2012). Therefore, in robustness tests, we also analyze the following alternative measures of firm value: stock returns in both a pooled panel setting (*Stock Returns*) and using a portfolio approach (*Monthly Stock Returns*) surrounding the effective dates of DDLs (returns data comes from the CRSP database); Total Tobin's  $Q$  (*Total Q*) which is a modified version of  $Q$  that includes intangible capital in the denominator (Peters and Taylor, 2017) (data for *Total Q* comes from the WRDS database: Peters and Taylor Total  $Q$ ); and measures of profitability, such as return on assets (*ROA*), and return on capital employed (*ROCE*) (data for these accounting measures come from Compustat).

We further include a number of control variables shown by the corporate governance literature to associate with Tobin's  $Q$ . Our default specifications include the following controls: *Size*, *Ln(Age)*, *HHI*, *SG*, *Loss*, *DEQ*, *Firm Liquidity*, *CAPX/Assets*, *R&D/Sales*, and *Inst. Own*. The

financial data used to construct most of the controls comes from Compustat, while the data for the institutional ownership measure is provided by Thomson Reuters. Further, following Karpoff and Wittry (2018), who show that the exclusion of other institutional factors creates an omitted variable bias, all of our main tests include indicator variables for the other four most common forms of state antitakeover legislation: business combination law (*BCL*), control share law (*CSL*), fair price law (*FPL*), and poison pill law (*PPL*).

Lastly, to mitigate the influence of extreme outliers, we winsorize all continuous dependent and independent variables in our sample at the 2.5% level in both tails and, additionally, we adjust dollar values for inflation using 2015 dollars.

We present summary statistics for all of the variables used in our pooled panel regression models in Internet Appendix Table IA.III. In particular, Panel A of Table IA.III reports the mean, standard deviation, median, and 25<sup>th</sup> and 75<sup>th</sup> percentiles for the main dependent, independent, and interacted variables over the covered period, 1983 to 2015. The average  $Q$  for all firm-year observations in our main sample is 1.92 with a standard deviation of 1.39, while 26.3% of firm-years in our dataset are affected by a DDL. Overall, the descriptive statistics for our variables are similar to those in the existing corporate governance literature (e.g., Giroud and Mueller, 2010, Cremers and Ferrell, 2014, Johnson, Karpoff, and Yi, 2015, Cremers, Litov, and Sepe, 2017).<sup>13</sup>

### *C. Identification Strategy*

To investigate the corporate value implications of directors' stakeholder orientation, as proxied by the adoption of DDLs, we primarily employ a staggered difference-in-differences research design following Bertrand, Duflo, and Mullainathan (2004) and Imbens and Wooldridge (2009). A key working assumption of this strategy is that the enactment of DDLs creates exogenous variation in the scope of director authority and stakeholder protection. Therefore, an essential step in providing evidence for the exogeneity of our identification strategy is to examine whether state legislatures were more likely to enact DDLs conditional on the ex-ante value of companies

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<sup>13</sup> Panel B of Internet Appendix Table IA.III provides full sample summary statistics for additional dependent and interacted variables used in auxiliary tests.

incorporated in their jurisdictions. In particular, if we were to find that states with ex-ante higher (lower) valued firms were more likely to adopt DDLs, this would raise a reverse causality concern and not support our identification assumption. Further, our identification strategy could also fail to meet the exclusion restriction if the changes in firm value and the enactment of these laws were spuriously correlated with underlying state-level economic and institutional conditions.

To address these concerns, we estimate a linear probability model to investigate whether the adoption of DDLs is predicted by pre-determined state-of-incorporation level averages of firm and industry characteristics, macroeconomic and institutional conditions, and unobserved time-invariant factors within the incorporating state and within the year (i.e., fixed effects for state of incorporation and year). We exclude all firm-year observations from the sample after their state of incorporation adopts a DDL (i.e., after a “failure event” takes place). This analysis is performed on our main dataset over the period 1983 to 2015. We estimate robust standard errors based on independent double clustering at the incorporation state and year level, which results in more conservative standard errors than clustering on either one of these dimensions alone. Finally, as indicated in our data section, all of our predictor variables are pre-determined, as we lag each by one year, and all continuous variables are standardized to have a mean of zero and unit variance in order to facilitate easy comparisons across coefficients.

Table I presents estimates of the marginal effect of the main predictor variables on the adoption of a DDL. In column (1), we include three variables related to ex-ante firm value at the state of incorporation and industry level: the average level and average change in  $Q$  within the incorporation state, and the mean three-digit standard industrial classification (SIC) industry level of  $Q$  within an incorporation state. In this first specification, we do not find any of the marginal effects, whether in levels or changes, to be significant predictors of the enactment of DDLs, which suggests that there were no pre-trends in firm value. In column (3), we include additional predictors capturing incorporation state-level averages of firm characteristics, as well as macroeconomic and institutional conditions. From this third specification, we find that the only significant (and positive) predictor of the adoption of DDLs is whether the adopting state has already enacted a fair

price law (“FPL”).<sup>14</sup> Lastly, in a test to examine if states with pre-determined levels of stakeholder intensity are more likely to adopt a DDL, we include incorporation state-year averages of proxies for these relationships in column (4). Again, we only document a significant relationship between previously enacted FPLs and DDL adoption.

Overall, we do not find evidence invalidating the exclusion restriction of our identification strategy, as these results seem consistent with our central assumption that the introduction of DDLs provided an exogenous shock to the scope of stakeholder orientation in directors’ decision-making.<sup>15</sup>

#### *D. Methodology*

Our methodology to estimate the value of stakeholder orientation for shareholders primarily employs a pooled panel, difference-in-differences regression model, comparing changes in Tobin’s Q among firms that are incorporated in states with an effective DDL to those of firms incorporated in states without such legislation. In particular, we estimate:

$$Q_{ijlst} = \beta DDL_{st} + \alpha' X_{ijst} + \gamma_i + \omega_{lt} + \lambda_{jt} + \varepsilon_{ijlst} \quad (1)$$

where  $Q$  measures the value of firm  $i$ , in industry  $j$ , located in division  $l$ , incorporated in state  $s$ , in year  $t$ . The main explanatory variable,  $DDL$ , is an indicator equal to one if state  $s$  has an effective DDL by year  $t$ , while  $X$  represents a vector of control variables including dummies for the four other most common state antitakeover laws (Karpoff and Wittry, 2018). However, for robustness, some of our tests exclude all firm-level controls, because some of these endogenous variables are also likely impacted by DDLs and could, thus, bias our coefficient estimates (Angrist and Pischke, 2009, and Roberts and Whited, 2013).

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<sup>14</sup> Out of the 27 states with FPLs, 74 percent adopted DDLs either in the same year (7 states) or later (13 states). Only 3 states with FPLs do not have DDLs. A plausible explanation for the evidence that FPLs are a positive predictor of DDLs is that they can both be considered weak forms of antitakeover protection compared to other antitakeover laws, such as business combinations laws and poison pill laws. Further, DDLs and FPLs share the common feature of providing for permissive rather than mandatory language, so that a board can decide to opt out of a fair price provision, as it can decide *not* to consider stakeholder interests even when the firm is covered by a DDL.

<sup>15</sup> We provide additional support for the validity of our identification strategy in subsection III.A. by examining the timing of the change in firm value relative to the timing of the effective date of DDLs.

Moreover, in each of our specifications, we include firm fixed effects,  $\gamma$ , to control for time-invariant unobserved heterogeneity within different firms, and U.S. Census division-of-location-by-year (“HQ division-by-year”),  $\omega$ , and industry-by-year interacted fixed effects,  $\lambda$ , to account for possible sources of time-varying, unobserved heterogeneity at a firm’s headquarter division and industry level (Gormley and Matsa, 2014, 2016). We define HQ division dummies using the U.S. Census Bureau’s nine geographical subdivisions (New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific)<sup>16</sup> and we measure industries with Fama-French 49 industry classifications. Lastly, we cluster our standard errors by state of incorporation (consistent with Bertrand and Mullainathan, 2003; Giroud and Mueller, 2010; Gormley and Matsa, 2016; Karpoff and Wittry, 2018).

The use of HQ division-by-year fixed effects enables us to restrict our comparisons of within firm changes in  $Q$  for companies affected by DDLs to firms unaffected by the legislation but located in the same U.S. Census division. This approach ensures our regression estimates are robust to a multitude of potential sources of unobserved time-varying factors that could bias our findings, including local economic conditions which have been shown to spill across neighboring states (Heider and Ljungqvist, 2015). Following Gormley and Matsa (2016), we use a firm’s headquarter location to assign its division-of-location since this is generally where a firm’s major plants and operations are located (Henderson and Ono, 2008). Additionally, we include industry-by-year fixed effects to further ease concerns that a latent, differential, time-varying trend within industries might bias our analysis; although, the HQ division-by-year fixed effects should control for some of this variation since most industries tend to cluster by geography (Ellison and Glaeser, 1997, 1999; Ellison, Glaeser and Kerr, 2010).

An alternative, and rather common, approach in the BCL literature is to employ the use of state-of-location-by-year fixed effects (Gormley and Matsa, 2014, 2016; Karpoff and Wittry, 2018). However, this strategy relies on having a majority of sample firms incorporated and located

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<sup>16</sup> Prior studies have used U.S. Census region-of-location-by-year fixed effects (e.g., Autor, Donohue, and Schwab, 2006; Acharya, Baghai, and Subramanian, 2014). We prefer divisions since they provide a more granular geographical measurement than regions, although, our findings are unchanged if we use HQ region-by-year fixed effects instead.

in different states. For instance, in Gormley and Matsa's (2016, p. 437) study, they note that "[they] are able to obtain estimates for the BC laws' effect even after including state-by-year fixed effects because more than 60% of [their] firms are incorporated and located in different states." By comparison, less than 33% (35%) of the (non-Delaware) firm-years that are (un)affected by DDLs in our sample are incorporated and located in different states. This leaves very little remaining variation for the *DDL* indicator after including state-by-year fixed effects which limits statistical power (and restricts the counterfactuals to almost entirely Delaware firms), thus motivating our use of HQ division-by-year fixed effects as an alternative empirical strategy.

### III. The Shareholder Value of Stakeholder Orientation

#### A. Pooled Sample

Table II begins our examination of the value relevance of stakeholder orientation for shareholders by reporting estimates from difference-in-differences, pooled panel regressions of *Q* on a *DDL* indicator variable over the period 1983 to 2015. In each column, we include firm, HQ division-by-year, and industry-by-year fixed effects and estimate robust standard errors clustered by state of incorporation. In columns (2) and (4), we include additional indicator variables for other state antitakeover laws (*BCL*, *CSL*, *FPL*, and *PPL*). Further, the last two columns specify our baseline firm characteristic controls (*Size*, *Ln(Age)*, *HHI*, *SG*, *Loss*, *DEQ*, *Firm Liquidity*, *CAPX/Assets*, *R&D/Sales*, and *Inst. Own*).

In column (1), without any controls, we find that firms incorporated in a state with an effective DDL experience an increase in *Q* of 6.7 percentage points relative to firms incorporated in states without such legislation but operating in the same HQ division and sharing a similar industry trend. This represents an economically significant increase of 3.5% ( $=0.067/1.918$ ) relative to the sample mean's *Q*. The regression specification in column (4) confirms that DDLs have positive value implications even after including controls for firm characteristics and other antitakeover statutes, as affected firms have *Q*s that are 7.2 percentage points higher than those of firms incorporated in unaffected states. This represents an economically significant increase of 3.8% ( $=0.072/1.918$ ) relative to the sample mean's *Q*.

The economic magnitude of the result increases from column (1) to columns (2) and (4) as we include additional antitakeover law controls, which is consistent with Karpoff and Wittry (2018), who show that neglecting other important state antitakeover factors can create an omitted variable bias (which in the case of our findings, appears to attenuate our estimates toward zero). This increase in coefficient magnitude is also likely due to a reduction in estimation noise, since some of the DDLs were adopted in the same year as one or more of the other antitakeover statutes. Thus, including these additional indicators allows our model to more accurately separate the effect of the DDLs from the other antitakeover statutes.<sup>17</sup>

Additionally, we test and find that our baseline point estimate (in column (4)) is quite stable to the exclusion of any DDL-passing state from the analysis. Internet Appendix Figure 1 provides a graphical representation of this stability. Specifically, on the y-axis we plot each of the 35 separate coefficients we estimate from regressions that omit a single DDL state – excluded state shown on the x-axis – along with their corresponding upper and lower 95% confidence interval bounds. We find that the point estimates compare favorably to our results in Table II, with magnitudes that range from 0.059 to 0.083 and *t*-statistics which fall between 2.01 and 2.78. Thus, it doesn't appear that an unobserved, state-specific factor (or outliers) is driving our main finding.

We next move to studying the timing of changes in firm value relative to the timing of DDLs. These tests are especially relevant for assessing the validity of the main assumption underlying our identification strategy, namely whether firms incorporated in both affected and unaffected states have similar trends in firm value in the years before a DDL is adopted.

Following Acharya, Baghai, and Subramanian (2014), Gormley and Matsa (2016), and Serfling (2016), we first create Figure 1 by regressing  $Q$  on firm, HQ division-by-year, and industry-by-year fixed effects, indicators for other state antitakeover laws, and dummy variables signifying the year relative to the effective date of the DDLs. We create these dummies for up to 10 years before and after a DDL becomes effective, where, for example, the final dummy equals

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<sup>17</sup> In unreported tests, we separately regress  $Q$  on the interaction of *DDL* with each of the other four antitakeover laws. We do not find evidence that coverage by a stakeholder law combined with any of the other types of antitakeover laws leads to differential changes in  $Q$ , suggesting that DDLs provide standalone value for shareholders.

one if 7 or more years have elapsed since the introduction of the directors' legislation. We plot the corresponding coefficient for the  $\pm$  five relative-year dummies, i.e., relative to the effective date of the laws. We indicate statistical significance on the figure by including 95% confidence intervals for the regression estimates, constructed from robust standard errors clustered by state of incorporation, and plot green triangular (blue diamond) markers when the coefficient's confidence interval is different from zero (i.e., where we reject the null hypothesis at the 5% (10%) significance level).

The figure shows that covered firms had similar  $Q$ s as firms in the control group in the five years prior to the effective date of the DDLs. In contrast, the 95% confidence intervals do not contain zero after the laws become effective, indicating that firm value is significantly higher for the affected firms afterwards. Overall, Figure 1 suggests that DDL firms share similar pre-treatment trends with firms incorporated elsewhere, while there is a clear post-event trend in value for the covered firms, relative to the control group, after the legislation becomes effective. This graphical evidence is consistent with our main identifying assumption of the difference-in-differences research design that the ex-ante movements (or pre-trends) in the average  $Q$  of the treated and control groups are parallel.

Next, in Table III we consider the dynamics of the documented positive relation between DDLs and  $Q$  by using the following indicator variables surrounding the effective date of the laws (as in, e.g., Giroud and Mueller, 2010; Atanassov, 2013b). First, we construct a placebo test by falsely assigning affected status to firms incorporated in states with DDLs one or two years before the legislation actually becomes effective and label this placebo dummy as  $DDL^{[-2 \text{ or } -1]}$ . Second, we create the dummy  $DDL^{[0]}$ , which indicates the affected status the year a DDL actually becomes effective in the firm's state of incorporation. Third, we use  $DDL^{[+1, +2, \text{ and } 3+]}$ , which we set equal to one if a company is incorporated in a state with a DDL that became effective one, two, and three or more years ago. Substituting these indicator variables for the main independent variable,  $DDL$ , we then run analogue models to those in columns (1) – (4) of Table II.

In all four columns of Table III, we find a lack of statistical and economic evidence for the placebo estimators (i.e., the coefficients of  $DDL^{[-2 \text{ or } -1]}$ ), whereas the effect of  $DDL^{[+1, +2, \text{ and } 3+]}$  are

always positive and both statistically and economically significant. Overall, we find evidence consistent with our research design's main assumption of parallel trends, as firms in both enacting and non-enacting states have insignificantly different values prior to the effective date of the laws, whereas the companies incorporated in the enacting states experience increases in value after the laws become effective.

Another way to examine the time series dimension of the relation between firm value and stakeholder orientation is to regress changes-in- $Q$  on the first difference of our main explanatory variable,  $DDL$ . We measure the change in firm value by subtracting the value of  $Q$  at the end of the fiscal year when the DDL first becomes effective in the firm's state of incorporation from the subsequent value of  $Q$  one to five years later. The pooled panel changes-in- $Q$  regression estimates in Internet Appendix Table IA.IV confirm that firm value increases for covered firms, showing a quasi-monotonic increase in the change in  $Q$ , as the coefficients on the change in  $DDL$  gradually increase in magnitude across the five columns (see, for instance, the point estimates of columns (1) [0.067], (2) [0.068], (4) [0.077], and (5) [0.087]). This progressive increase in firm value is also consistent with the coefficient plots in Figure 1.

### *B. Matched Sample*

We now shift to the construction of a matched sample, in order to mitigate the possibility that some other unobserved confounding events or differences in ex-post observed and unobserved firm characteristics might be correlated with both the adoption of DDLs and firm value, potentially creating a spurious correlation between  $Q$  and  $DDL$ . Further, corporations more (less) reliant on stakeholder relationships and long-term investments might self-select (i.e., reincorporate) into (out of) states with directors' duties legislation, potentially making the control group of firms a poor counterfactual for testing the effect of these laws on firm value.

In constructing our matched sample, we consider treated and control firms with equidistant pre- and post-estimation windows surrounding the 35 effective dates of DDLs. In particular, we match all sample firms in each of the states that adopted a DDL to a control firm in a state that does not have such legislation during the five-year period after the DDL becomes effective in the

treated firms' incorporation state. This matching procedure is conducted in the year prior ( $t-1$ ) to the effective date of each of the 35 DDLs – thus controlling for reincorporation. We construct propensity scores for matching on  $Q$ ,  $Size$ ,  $Ln(Age)$ ,  $Loss$ , and  $Inst. Own$ , as well as the following proxies for stakeholder relationships and long-term investments to address the concern of a self-selection effect: *Strategic Alliance*, *Supplier Dependency*, *Unsecured Debt*, and  $Ln(Patent)$ . In addition, we use exact matching on HQ divisions, and Fama-French 49 industry classifications.

Panel A of Table IV presents the pre-treatment year summary statistics for the resultant matched sample. Columns (1) and (2) show the means and standard deviations (in parentheses) of the matching variables for the treated and control firms. We present the differences between the treated and control group variables and corresponding  $t$ -statistics (in parentheses) in column (3). This panel shows that the treated and control groups are insignificantly different from one another for each of these characteristics. Hence, our matched sample mitigates the two main concerns surrounding our pooled panel approach discussed above. Internet Appendix Table IA.V reports the complete set of descriptive statistics for our matched sample.

Panel B of Table IV provides the matched sample difference-in-differences estimates of the  $Treated \times Post$  interaction term on  $Q$ , where  $Treated$  is always equal to one for firms incorporated in a state with a DDL, and zero otherwise, and  $Post$  is set equal to one in the year of, and the three years after, the enacting states' effective date, and zero in the period before. We include firm, HQ division-by-year and industry-by-year fixed effects in all four columns but exclude the  $Treated$  and  $Post$  indicators due to multicollinearity with the fixed effects and use robust standard errors with state of incorporation-level clustering. Columns (1) – (4) include dummies for the other antitakeover law controls, while columns (2) and (4) also add the baseline controls for firm and industry characteristics. Lastly, the first (last) two columns include (exclude) the firm-year observations in which the matched pairs DDL becomes effective (to mitigate potential estimation noise).

In column (1), we find that the treated firms experience economically and statistically significant increases in  $Q$  of 4.9 percentage points relative to the matched control firms over a  $\pm$

three-year estimation window.<sup>18</sup> This represents a meaningful 3.1% ( $=0.049/1.583$ ) increase in firm value relative to the matched sample average value of  $Q$  of 1.583.<sup>19</sup> Consistently, when we estimate the fully specified baseline matched sample regression in column (2), we document an average increase of 3.5% ( $=0.055/1.583$ ) in  $Q$  relative to the control firms. Further, the estimates in the last two columns, which exclude the year  $t = 0$  observations, are both economically and statistically stronger than the first two columns, confirming our earlier findings that the value relevancy of stakeholder orientation becomes stronger over time.

### *C. Alternative Value Measures*

Our main measure of value is  $Q$ . However, in robustness tests, we use several alternative value measures, which can be grouped into three categories. The first category employs stock returns (*Stock Returns*) as dependent variables in our pooled panel and matched sample regressions. We use excess stock returns and risk-adjusted stock returns (similar to the approach in Cohen and Wang, 2013), estimated using the CAPM (Treynor, 1962; Sharpe, 1964; Lintner, 1965; Mossin, 1966), and Fama-French four factor (Fama and French, 1993; Carhart, 1997) models. The second category uses Total Tobin's  $Q$  (*Total Q*). This proxy of firm value, introduced in Peters and Taylor (2017), modifies standard  $Q$  by including intangible capital in the denominator term – i.e., the firm's replacement cost of total capital. Our last category of alternative value measures consists of profitability (*Profitability*) ratios (Bertrand and Mullainathan, 2003; Giroud and Mueller, 2010). We use the following *Profitability* proxies: return on assets (*ROA*), and return on capital employed (*ROCE*) – we lead the profitability ratios by one year ( $t+1$ ) since DDLs likely affect policy variables with a lag.

We present our results in Table V, where Panel A (B) is specific to the pooled panel (matched) sample. Moreover, each of the five columns in both panels include our full set of

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<sup>18</sup> Our findings are unchanged if we alternatively specify estimation windows of  $\pm$  four, five, or six years. Additionally, we show in Internet Appendix Table IA.VI that the quasi-monotonic relation between changes in firm value and DDLs in the pooled sample (presented in Internet Appendix Table IA.IV) also holds in the matched sample.

<sup>19</sup> The matched sample average  $Q$  is noticeably lower from the average in the pooled panel. This is an artifact of increasing  $Q$ s over time, and the majority of the DDLs being enacted earlier in the time series (1984-1990).

baseline controls and fixed effects and adjusts standard errors for clusters at the state of incorporation level. Inspecting the five columns in each of Table V's panels suggests that firms incorporated in DDL states experienced significant increases in firm value relative to companies incorporated elsewhere but sharing the same HQ division and similar industry trends. For example, we find that firms affected (*Treated*) by DDLs had gains in *FF4 Adj. Excess Ret* of 2.5 (6.2) percentage points in the pooled panel (matched sample).

As a final robustness check of our findings on  $Q$ , we take the stock returns analysis one step further, following prior studies (Gompers, Ishii, and Metrick, 2003; Bebchuk, Cohen, and Ferrell, 2009; Cremers and Ferrell, 2014; Cremers, Litov, and Sepe, 2017). We do so by constructing long (short) portfolios of stocks from the *Treated* (control) firms in the matched sample around the time their (matched counterparts) DDLs become effective. The idea behind this approach is that if greater stakeholder orientation in corporate decisions via DDLs matters for long-term firm performance, but its effect is not incorporated immediately into equity prices because of, for instance, informational inefficiencies across states and time, then the realized returns for treated firms would differ systematically from those of the control firms.<sup>20</sup>

Table VI (Internet Appendix Table IA.VII) reports the results and indicates that long portfolios of treated firms and long-short portfolios of treated and control firms yields positive and significant alpha over “6m12” and “6m24” holding periods, using a value-weighted (equally-weighted) market factor, and estimating risk-adjusted returns using either the four-factor (Carhart, 1997) or three-factor (Fama and French, 1993) models. For instance, when we buy stocks of treated firms 6 months before the effective date of DDLs and hold such stocks until 24 months after (“6m24”), we find an annualized abnormal return of 7.2% using the four-factor model. In contrast, shorting control group stocks for a similar investment horizon, does not result in significant abnormal stock

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<sup>20</sup> Another possible explanation for the differences in realized returns between treated and control firms is that the risk characteristics of the treated firms change with the enactment of an effective DDL. For instance, in the next section we show that DDL-affected firms increase their investments in risky innovative projects (Table VII), which in turn, likely changes the overall risk profile of the treated firms (Gu, 2016).

returns. Further, the resulting long-short portfolio that buys the treated and sells the controls firms has a positive and significant annualized abnormal stock return of 6.4%.

Overall, in Section III, we find robust evidence in both our pooled panel and matched sample *Q*, *Stock Returns*, *Total Q*, and *Profitability* regressions and in our matched sample portfolio analysis that enhancing director discretion in considering stakeholders' interests in corporate decision-making through the adoption of DDLs increases firm value.

#### IV. Policy

We follow-up our value analysis, by examining potential policy implications of greater stakeholder orientation in director decision-making. Our interest in this section is to explore whether the increases we find in the long-term value of the DDL-affected firms might partially be explained by changes in the firms' operations.

Following recent studies in the antitakeover law literature (Atanassov, 2013a, 2013b; Flammer and Kacperczyk, 2015), we first consider possible changes to a firm's long-term investments in innovation using *R&D/Sales*, citation-weighted patents ( $\ln(CW Patent)$ ) and stock market-weighted patents ( $\ln(SM Patent)$ ), since prior work has shown that innovation is positively correlated with *Q* (Griliches, 1981; Hall, Jaffe, and Trajtenberg, 2005). The latter measures are defined as the natural logarithm of one plus citation-weighted or stock market-weighted patents, respectively (as in Kogan et al., 2017; Kempf and Spalt, 2019). *R&D/Sales* is constructed from financial data on Compustat, whereas the patent data comes from the KPSS database and covers all utility patents issued by the United States Patent Office (USPTO) from 1926 to 2010. Moreover, since DDLs likely affect policy with a lag, we lead the dependent variables by one year ( $t+1$ ).

The first three columns of Table VII present the pooled panel estimates from regressing each of the above innovation-related dependent variables on *DDL*. In each of these columns, we include our baseline set of controls and firm, HQ division-by-year, and industry-by-year fixed effects. From columns (1) – (3), we document positive and statistically significant increases in value enhancing innovation measures, as captured by a firm's next year's research and development expenditure, citation-weighted patents (consistent with Atanassov, 2013a and Flammer and

Kacperczyk, 2015), and stock market-weighted patents. For instance, in column (1), we find that after a firm is covered by a DDL, next year's *R&D/Sales* increases by 6.3% ( $=0.003/0.048$ ) relative to the sample mean.

Next, we shift to assessing the overall financial soundness of firms incorporated in states with effective DDLs. Guided by recent theoretical work (Allen, Carletti, and Marquez; 2015), we conjecture that firms that are more oriented toward stakeholder considerations in their directors' decisions might take more precautions in their policies to avoid bankruptcy to protect all of their stakeholders. We measure financial soundness using three proxy variables. The first proxy is an indicator variable equal to one if a company has negative net income in a given year (*Loss*), and zero otherwise (Cain, McKeon, and Solomon, 2017). The second is *Default Risk*, which is a dummy equal to one if a firm has a modified  $Z'$ -score below the sample-year median, and zero otherwise (MacKie-Mason, 1990). Lastly, we use *Short-Term Debt* defined as the percentage of short-term debt to total debt (Bowen, DuCharme, and Shores, 1995).

The last three columns of Table VII specify the three different financial soundness-related dependent variables, and control for the baseline covariates and firm, HQ division-by-year, and industry-by-year fixed effects. Similar to the innovation measures, we consider the impact of DDLs on next year's financial soundness ( $t+1$ ). Again, we document evidence consistent with the theoretical predictions in Allen, Carletti, and Marquez (2015) and empirical findings in Gao, Li, and Ma (2018), as all three proxies for financial soundness improve for the DDL covered firms as compared to the uncovered firms. For instance, column (4) suggests that corporations covered by a DDL, and thus subject to greater stakeholder orientation, are 2.2% less likely to have negative net income in the next fiscal year.

In sum, we find supporting evidence that firms respond to enhancements in director discretion to consider stakeholder interests via DDLs by increasing innovation outputs and financial soundness proxies, which ultimately leads to increases in long-term firm value.<sup>21</sup>

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<sup>21</sup> In unreported tests, we follow the prior antitakeover law literature (Garvey and Hanka, 1999; Bertrand and Mullainathan, 2003; Karpoff and Wittry, 2018), and also consider possible changes to a firm's standard corporate

## V. The Economic Channels of Stakeholder Orientation

This section examines potential channels through which greater stakeholder orientation in director decision-making, as enabled by the passage of DDLs, may contribute to increased long-term firm value. The primary economic mechanisms we explore to explain our main finding relate to two partially overlapping and complementary hypotheses. The first is the “bonding hypothesis,” which poses that increased director power to protect stakeholders from the threat of a takeover can bond stakeholders more closely to the firm, thereby decreasing a firm’s contracting costs and improving long-term firm value (Knoeber, 1986; Laffont and Tirole, 1988 and Shleifer and Summers, 1988).

The second is the “stakeholder model hypothesis,” which focuses on the broader implications of DDLs for how the board considers shareholder versus stakeholder interests in ordinary corporate decision-making rather than just the takeover context. In particular, in the model proposed by Magill, Quinzii and Rochet (2015), in incomplete markets, firms – especially if they are more complex, more innovation-intensive and engaged in long-term investments – are exposed to risks that arise from within, created by their own investment and production decisions (i.e., endogenous risks). These risks may adversely affect a firm’s stakeholders (e.g., employees through lower wages, customers through higher product prices), hence resulting in stakeholder underinvestment in the firm. Within this framework, enhanced director authority to consider stakeholder interests helps to internalize the externalities derived from a firm’s endogenous risks on stakeholders other than shareholders when markets are incomplete, leading to more efficient production. Further, while Magill, Quinzii and Rochet (2015) do not explore the implications of stakeholder orientation for shareholder welfare, we hypothesize that in the long-term stakeholder orientation may benefit shareholders as well, by mitigating the stakeholders’ incentives for underinvestment.

In order to test the stakeholder orientation channel, and thus the two underlying hypotheses, we present results using three sets of proxies. Although it is challenging to separate the related

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policies, examining whether DDLs impact the size of the firm’s assets (*Size*) and/or its capital structure (*DEQ*) and expenditure (*CAPX/Assets*). We do not find evidence that DDLs lead to significant differences in these policies.

hypotheses empirically, we design the following tests attempting to capture aspects of both theories. Our three sets of proxies pertain to (i) the complexity of a firm's operations, (ii) the prevalence of endogenous risks faced by a firm via its long-term investments in innovation, and (iii) the importance of a firm's non-financial and financial stakeholder relationships.

#### *A. Complexity*

We begin our evaluation of the sources of value of DDLs by considering their heterogeneous effects on companies that are larger and characterized by operational and informational complexity. On the one hand, firms that are bigger in size are arguably more likely to involve a greater number of stakeholders in both its day-to-day and long-term operations. Thus, the bonding hypothesis would suggest that DDLs could benefit this subset of firms more than smaller firms and/or firms with more simple business models. On the other hand, complex firms can arguably be expected to have greater levels of investment activity and, hence, be more exposed to endogenous risks that may lead to externalities toward non-shareholder constituencies. We therefore conjecture that if the stakeholder model hypothesis can explain the value added by stakeholder orientation in director decision-making, this value should be more prominent for this subset of firms.

Our proxies for complexity include the following four measures: (i) *Large Firm*, an indicator variable set equal to one if a company's *Size* is in its four-digit SIC code sample's top quartile in a given year, and zero otherwise; (ii) *Firm Sales*, that is the natural logarithm of sales revenue (Cremers, Litov, and Sepe, 2017); (iii) company *Size* (Rajan and Zingales, 1995); and (iv) *Employees*, which is the natural logarithm of one plus the number of a firm's employees (Png, 2017). Each of the four columns include the baseline controls, and firm, HQ division-by-year, and industry-by-year fixed effects.

Consistent with both the bonding and stakeholder model hypotheses, we find evidence in columns (1) – (4) of Table VIII that giving the board enhanced discretion to consider stakeholder interests yields a heterogeneous effect for large, more complex firms. For instance, in column (1), we show that the largest companies in a given four-digit SIC code industry experience additional

differential increases in  $Q$  of 3.1% ( $=0.060/1.918$ ) relative to the sample mean. Similar results are confirmed in the last three columns. For example, in columns (2) and (3), covered firms with a one standard deviation increase in *Firm Sales* and *Size* experience an increase in value of 2.7% ( $=0.024 \times 2.197/1.918$ ) and 3.4% ( $=0.032 \times 2.027/1.918$ ) relative to the respective sample mean. These results are further consistent with our findings in an unreported test, where we show that S&P 500 firms experience economically and statistically significant increases in  $Q$  after becoming covered by an effective DDL.

### *B. Endogenous Risks*

Next, we investigate the heterogeneous value implications for corporations that are more engaged in long-term investments in innovation. Given the uncertain nature of investments in innovation, firms more reliant on these types of operational strategies are more exposed to endogenous risks, which Magill, Quinzii, and Rochet (2015) show can have adverse effects on stakeholders. Therefore, the stakeholder model hypothesis would suggest this subset of firms is made heterogeneously better off by DDLs. Moreover, while we see the tests for the prevalence of a firm's endogenous risks as primarily relating to the stakeholder model hypothesis, firms more engaged in innovation generally require more firm-specific investments from stakeholders. This suggests that these tests also matter for the bonding hypothesis, which suggests that enhancing director discretion to consider all stakeholder interests can credibly commit a firm towards its non-shareholders.

We test the endogenous risk component of the enhanced stakeholder orientation channel using the following four empirical proxies. The first measure is *R&D/Sales* (Chan, Lakonishok, and Sougiannis, 2001; Eberhart, Maxwell, and Siddique, 2004). Second, we create the variable *Investment Rate* as the sum of capital expenditures and acquisitions minus the sale of property and divided by the book value of assets (Sanati, 2018). The third proxy for long-term investments is innovation that results in patent citation as defined by the natural logarithm of one plus citation-weighted patents ( $\ln(CW Patent)$ ) (Hall, Jaffe, and Trajtenberg, 2005; Atanassov, 2013b). The last

proxy is *Research Quotient* (as proposed in Knott, 2008), which measures the output elasticity of R&D and is provided on WRDS in the Research Quotient database.

Table IX shows our results. Columns (1) – (4) include our full set of baseline controls and fixed effects. Consistent again with the theoretical predictions of the two complementary hypotheses, this table indicates that when directors are more oriented to consider stakeholder interests in their decision-making, firms which are more engaged in long-term innovation and, hence, have greater exposure to endogenous risks and require greater firm-specific investments from stakeholders, benefit more. For example, in column (1), we find that a one standard deviation increase in *R&D/Sales* results in an economically significant increase in *Q* of 4.4% ( $=0.992 \times 0.086 / 1.918$ ), relative to the sample mean. Similar results are found in column (3), which shows results for the effect of DDLs on firms reliant on novel innovation, as affected companies with citation-weighted patent portfolios in the 75<sup>th</sup> percentile of the sample distribution experience heterogeneous increases in value of 3.2% ( $=0.031 \times 1.029$ ).

### *C. Stakeholder Relationships*

Our next set of tests concerning the channel through which greater stakeholder orientation may affect firm value explores whether covered firms with important stakeholder relationships experience heterogeneous gains in value. As these additional tests focus on the importance of protecting stakeholder relationships in firms where those relationships plausibly matter the most, they arguably serve to verify both the bonding hypothesis and stakeholder model hypothesis of the value added by greater stakeholder orientation (via DDLs.)

We first use four proxies to capture firms where investments by non-financial stakeholders are likely to matter more. The first proxy, *Strategic Alliance*, is constructed to indicate whether a firm has a long-term partnership with another firm (following Bodnaruk, Massa, and Simonov, 2013). We create this variable by setting it equal to one in all firm-years in which the firm participates in an active strategic alliance, and, otherwise giving it a value of zero (Johnson, Karpoff, and Yi, 2015; Fich, Harford, and Yore, 2018). The second is *Large Customer*, which also is an indicator. This variable equals one if a firm's percentage of customer sales, based on the Compustat segment

level database, is above the sample average, and zero otherwise. The third is *Supplier Dependency*, which captures the dependency of a company on its suppliers and is defined as the product of the supplier's R&D expenditure and the fraction of sales to the customer, scaled by the supplier's book value of assets (following Kale and Shahrur, 2007; Raman and Shahrur, 2008; and Phua, Tham, and Wei, 2018). The fourth proxy is *Labor Intensity*, which captures how intensely businesses rely on their human capital and is measured as the number of employees divided by real sales revenue (Dewenter and Malatesta, 2001), where we adjust sales in (inflation-adjusted) 2015 dollars.

Table X presents the pooled panel regressions of  $Q$  on our four proxies for non-financial stakeholder relationships over the period 1983 to 2015. In each of the models (1) – (4), we include our full set of baseline controls and fixed effects and estimate robust standard errors with clustering by state of incorporation. Consistent with our conjectures under both the bonding hypothesis and the stakeholder orientation hypothesis, we find in column (1) that firms incorporated in states with a DDL and in a *Strategic Alliance* experience an additional increase in  $Q$  of 7.8% ( $=0.149/1.918$ ) relative to the sample mean. Similarly, column (4) shows that a one standard deviation increase in *Labor Intensity* yields a 1.5% ( $=0.048 \times 0.313$ ) additional gain in  $Q$  for covered firms.

Next, we focus on financial stakeholders other than shareholders, that is, creditors, under the more specific conjecture that creditors are especially subject to the risk of wealth expropriation when directors are mandated to exclusively maximize shareholder wealth, due to the well-known asset substitution problem (Smith and Warner, 1979). Along similar lines, creditor interests are also especially threatened by a potential change in control, due to the leverage restructuring plans often triggered by takeovers and related claim dilution issues (Smith and Warner, 1979).

We investigate the heterogeneous effects on creditors by interacting *DDL* with four proxies for the importance of stakeholder-creditors.<sup>22</sup> These proxies are: (i) *Unsecured Debt*, defined as the

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<sup>22</sup> As an unreported robustness check, we also test the heterogeneous value effect of DDLs for involuntary creditors. We hypothesize that firms operating in manufacturing and products-based industries are more likely to cause potential damage to consumers and other involved parties and, thus, giving directors' the authority to consider these stakeholders will reduce the externality to a subset of involuntary creditors that corporate decision making may create. While this is a relatively crude approach, we do find that affected firms operating in manufacturing and products industries experience gains in  $Q$  relative to firms without such legislation and to both affected and unaffected firms operating outside of these industries.

ratio of unsecured debt to total debt (Valta, 2016); (ii) *Industry CF Risk*, defined as the standard deviation of operating cash flows for a three-digit SIC code industry over seven-year rolling windows (Serfling, 2016); (iii) *Creditor Reliance*, an indicator variable for the reliance of a firm on creditors, which is set equal to one for a firm with a debt-to-equity ratio greater than the sample year median, and zero otherwise; (iv) *Default Risk*, defined as in Section IV.

Table XI reports the results of our regressions for specifications that include our baseline controls, firm, HQ division-by-year, and industry-by-year fixed effects in each column. Providing further evidence for both the bonding hypothesis and the stakeholder model hypothesis, column (1), for example, shows that affected firms with greater levels of unsecured debt experience differential gains in value. In particular, a one standard deviation increase in *Unsecured Debt* yields a positive increase in  $Q$  of 2% ( $=0.049 \times 0.405$ ). Similarly, column (4) shows that a one standard deviation increase in *Default Risk* results in an increase in firm value of 3.2% ( $=0.065 \times 0.499$ ) for corporations covered by a DDL.

Overall, the evidence across Tables VIII – XI suggests that enhanced stakeholder orientation in director decision-making is especially likely to benefit firms that are larger and have more complex operations, have a large customer, are in a strategic alliance, where long-term investments are more important, and are more labor- or creditor- intensive by both enabling these firms to bond its stakeholders more closely and moderating the externalities that might be created by a firm's endogenous risks, in the interest of all stakeholders, including shareholders.

#### *D. The Bargaining Power Hypothesis*

For robustness, we consider here an alternative channel that might explain the increase in shareholder value for firms incorporated in states with effective DDLs and that does not relate to (or only indirectly so) the enhanced stakeholder orientation in director decision-making made possible by these laws. This channel relates to the “bargaining power hypothesis” under which the positive relation between firm value and DDLs could be explained by an increase in the “bargaining power” of the target firms incorporated in the enacting states (DeAngelo and Rice, 1983; Stulz, 1988; Harris, 1990; Kadyrzhanova and Rhodes-Kropf, 2011). Indeed, DDLs provide

a target's directors with enhanced discretion in takeover negotiations, enabling them to defend against an acquisition bid based on the consideration of the interests of all stakeholders, rather than being legally obligated to only consider shareholder interests.

To test this potential channel of value, we analyze both takeover likelihoods and target acquisition premiums and value. In Internet Appendix Table IA.VIII, we examine the effect of DDLs on the propensity for affected firms to receive a takeover bid (*Bid*), as well as its impact on the likelihood of successful completion of a deal (*Acquired*). Our results from these tests suggest that firms incorporated in states with effective DDLs are equally likely to receive a takeover bid or be acquired as companies in states without these laws. However, while necessary, this evidence by itself is insufficient to verify or reject the bargaining power hypothesis of DDLs. The required additional step is verifying whether target firms covered by these laws have higher takeover premia.

In Internet Appendix Table IA.IX, we consider if DDLs are associated with takeover premia using two sets of tests. First, in Panel A, we regress three measures of takeover premia (*1-Day*, *1-Week*, and *4-Week Premiums*)<sup>23</sup> on the *DDL* indicator variable. Second, in Panel B, we consider an alternative test of the effect of DDLs on target firm value by proxying for the target firms' risk of being acquired (*Inc. State-Year M&A Vol.* and *Ind-Year M&A Vol.*) and interact these proxies with *DDL* to gauge any heterogeneous effect on *Q* (Cremers, Litov, and Sepe, 2017). In both Panels A and B, we do not find evidence that affected firms experience increases in takeover premia, concluding that the data do not provide support for the bargaining power hypothesis.

While there are challenges with this analysis that make it difficult to empirically test for unobservable changes in the takeover market of affected firms,<sup>24</sup> overall the evidence in this

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<sup>23</sup> In unreported tests, we scale the three premium measures by proxies for firm fundamentals (e.g., book equity, earnings, and ROA) to alleviate concerns that the non-result is biased by market anticipation of higher bargaining power (Edmans, Goldstein, and Jiang, 2012). Even after this transformation, we do not find that DDLs increased takeover premiums for treated firms.

<sup>24</sup> In particular, (i) we are unable to measure how many takeover bids and would-be-successful attempts never materialized on account of DDLs, and (ii) how many ex-ante targets became too costly following the enactment of a DDL as we demonstrate that the affected firms' market values significantly increased afterwards, making them more expensive to acquire.

section rejects that the bargaining power hypothesis might explain the positive relation between DDLs and firm value.

## VI. Additional Robustness

To conserve space, we reserve our analysis and discussion of several, additional robustness tests for Section IB in the Internet Appendix. However, to provide a roadmap for interested readers we include a brief outline of these materials below:

- (i) We verify the strength of our main finding to the inclusion of state-by-year fixed effects instead of HQ division-by-year fixed effects (Table IB.I), showing that our results hold using this alternative specification.
- (ii) We examine the statistical reliability of our pooled panel empirical design by conducting tests for “size” and “power” on 1,000 bootstrapped samples. Tables IB.II–III and Figures IB.1–2 indicate that our pooled panel models exhibit good size and power.
- (iii) We check the validity of our matched sample regression estimates by performing a placebo test, whereby we purposely move back DDL effective dates by three-years, and construct a new placebo matched sample; hence, an increase in stakeholder orientation never actually occurs in these firm-year observations. Table IB.IV finds placebo-treated and control firms have insignificantly different  $Q$ s over the entire ( $t \pm 3$ ) estimation window, further lending support for the parallel trends assumption in our “true” matched sample.
- (iv) Lastly, we explore three legal robustness tests which consider:
  - a. The heterogenous strength of DDLs by forming a directors’ duties strength index (*DDS-Index*) and verifying that our main findings hold using this alternative proxy of stakeholder orientation (Table IB.V).
  - b. The possibility that a negative “Delaware effect” is driving our results since the majority of unaffected (control) firms in our pooled panel (matched) sample

incorporate in Delaware. However, Table IB.VI shows that excluding these firms entirely from either the pooled panel or when constructing a matched sample does not change our findings.

- c. Heterogeneity in Texas' DDL, since this law permitted firms incorporated in Texas before its DDL's effective date (1/2006) to voluntarily opt-in until 1/2010. Table IB.VII finds that our baseline results on the value of stakeholder orientation are robust to various treatments (*DDL-Texas Adj.* and *DDL-Texas Index*) of Texas affected firms.

## **VII. Conclusion**

Previous studies have used state antitakeover laws to identify changes in corporate governance that are plausibly exogenous to the firm. Only a minority of these studies, however, have considered directors' duties laws that grant directors enhanced authority to take into account stakeholder interests.

In this paper, we both revisit the takeover implications of directors' duties laws (DDLs) and examine the broader implications of the enhanced stakeholder orientation in director decision-making enabled by these laws, investigating the value implications of DDLs for covered firms over the period 1983-2015. Our main finding is that the passage of these laws results in a statistically and economically significant increase in firm value, especially for larger and more complex firms, more innovative firms, and firms where stakeholder investments are more relevant. This finding is robust to various methodologies, including pooled panel first difference regressions, pooled panel regressions that additionally specify state-of-location-by-year and industry-by-year fixed effects to account for unobserved, time-variant state and industry factors, the incorporation of possible selection effects (such as reincorporation) through the creation of a matched sample, and alternative value measures, such as risk-adjusted stock returns, excess stock returns and profitability ratios, and a stock portfolio return approach.

Overall, our results support the view that enhanced stakeholder orientation in director decision-making contributes to increased long-term firm value through two distinct, yet complementary

channels. The first relates to the “bonding hypothesis” of takeover defenses, according to which empowering boards to protect stakeholder interests against the disruption caused by takeovers decreases a firm’s cost of contracting and, in the long-term, increases its value. The second channel relates to the “stakeholder model hypothesis,” which takes the institutionalist view that expanding stakeholder orientation in director decision-making reduces the externalities that firms create for stakeholders other than shareholders in incomplete markets, especially when firms are large and more invested in long-term innovative projects.

Our study should not be interpreted as negating the basic conclusion of incentive theory that shareholders have an incentive to monitor and should use the stock price in so doing. However, consistent with other recent theoretical and empirical studies (Magill, Quinzii, and Rochet, 2015; Hart and Zingales, 2017; Cen, Dasgupta, and Sen, 2015; Johnson, Karpoff, and Yi, 2015, 2018; Cremers, Litov, and Sepe, 2017), we provide empirical support for the view that directors serve both shareholder and stakeholder interests when they act as centralized coordinators charged with addressing the trade-offs that arise in an imperfect world, rather than as mere agents of shareholders.

### Appendix A: Variable Definitions

Dependent Variables	Description
<i>Q</i>	Market value of assets ( <i>at</i> – book equity + market value of equity ( <i>prcc_f*csho</i> )) divided by the book value of assets ( <i>at</i> ). Book equity and this measure, in general, follows Fama and French (1992).
<i>Mkt (FF4)Adj. Excess Ret</i>	Market (Fama-French 4-factor) adjusted excess returns are defined as the residual from annual regressions of raw returns on a value-weighted market factor (and a small-minus-big factor, high-minus-low factor and a momentum factor).
<i>Total Q</i>	Total Tobin’s Q equals the market value of outstanding equity plus the book value of debt ( <i>dltt</i> + <i>dlc</i> ) minus the firm’s current assets ( <i>act</i> ) divided by the sum of physical ( <i>ppeg</i> ) and intangible capital. Intangible capital is defined as the sum of externally purchased ( <i>intan</i> ) and internally created intangible capital (knowledge plus organizational capital). This measure ( <i>q_tot</i> ) is proposed by Peters and Taylor (2017) and is available on WRDS from 1950 to 2015.

<i>ROA</i>	Return on assets, measured as net income ( <i>ni</i> ) scaled by the total book value of assets.
<i>ROCE</i>	Return on capital employed, defined as earnings before interest and taxes ( <i>oibdp</i> ) over the sum of debt in long-term and current liabilities and common equity.
<i>Monthly Stock Returns</i>	Monthly stock returns of a portfolio created by either (i) longing the stocks of matched firms incorporated in states with an effective DDL, (ii) shorting the stocks of matched companies incorporated in states without directors' duties legislation, and (iii) combining both (i) and (ii) into a long-short investment strategy. In all three portfolios, we begin the holding period 6 months before the effective date and continue to hold until 12 ("6m12") or 24 ("6m24") months after the laws are enacted.
<i>R&amp;D/Sales</i>	Research and development expense ( <i>xrd</i> ) divided by the value of sales ( <i>sale</i> ); also a main interaction variable and a <i>Q</i> -regression control variable in separate tests.
<i>Ln (CW Patent)</i>	The natural logarithm of one plus citation-weighted patents. Source of data comes from Noah Stoffman's website and is available from 1926 to 2010; also a main interaction variable.
<i>Ln (SM Patent)</i>	The natural logarithm of one plus stock market-weighted patents. Source of data comes from Noah Stoffman's website and is available from 1926 to 2010.
<i>Loss</i>	An indicator variable set to one if a firm has negative net income ( <i>ni</i> ) during a fiscal year, and zero otherwise; also a control variable in <i>Q</i> specifications.
<i>Default Risk</i>	An indicator variable equal to one if a firm has a modified <i>Z''</i> score below the sample median in a given year. Modified <i>Z''</i> score is a measure to indicate the likelihood of a company going bankrupt or having significant financial distress defined as $3.25 + 6.56*(wcap/at) + (3.26*re/at) + (6.72*ebit/at)$ . <i>Z''</i> is more suitable for evaluating the financial health of firms in different industries, while the original measure, <i>Z</i> , was created solely for manufacturing firms (Altman, Haldeman, and Narayanan, 1977). <i>Modified</i> characterizes the exclusion of the last term ( <i>beq/lt</i> ) in the original <i>Z''</i> measure (MacKie-Mason, 1990); <i>Default Risk</i> is also a main interaction variable in a separate test.
<i>ST Debt</i>	Short-term debt ( <i>dlc</i> ) divided by total debt.
<hr/> <i>Main Explanatory Variable</i> <hr/>	<hr/> <i>Description</i> <hr/>
<i>Directors' Duties Law (DDL)</i>	An indicator variable equal to one if a firm is incorporated in a state with an effective DDL, and zero

	otherwise. We use effective dates provided by Barzuza (2009) and Karpoff and Wittry (2018).
<i>Alpha</i>	Monthly portfolio abnormal returns, estimated using either the four-factor Carhart (1997) or three-factor Fama-French (1993) models, respectively.
<b>Main Interaction Variables</b>	<b>Description</b>
<i>Large Firm</i>	An indicator variable equal to one if a firm is in the top quartile of $Ln(Assets)$ in its four-digit SIC code industry, and zero otherwise.
<i>Firm Sales</i>	The natural logarithm of the value of total sales revenue in millions, where sales are adjusted using 2015 dollars.
<i>Employees</i>	The natural logarithm of one plus the total number of a firm's employees ( <i>emp</i> ).
<i>Investment Rate</i>	Capital expenditures ( <i>capx</i> ) plus acquisitions ( <i>aqc</i> ) minus the sale of property ( <i>sppe</i> ), over the book value of assets.
<i>Research Quotient (RQ)</i>	Firm-specific output elasticity of R&D, representing the percentage change in revenues for a 1% change in R&D, as proposed by Knott (2008). Source of data for 1983 - 2015 is WRDS.
<i>Strategic Alliance</i>	An indicator variable equal to one if the firm is in an active strategic alliance based on the SDC Strategic Alliances database. We only include strategic alliances with at least three partners.
<i>Large Customer</i>	An indicator variable equal to one if a firm's percentage of customer sales is greater than the sample average. Source of customer sales data is the historic Compustat Segment tapes.
<i>Supplier Dependency</i>	Relationship specific investment ( <i>RSI</i> ). <i>RSI</i> equals the product of the supplier's R&D expenditure and the fraction of sales to the customer, divided by total assets of the supplier. Source of customer sales data is the historic Compustat Segment tapes.
<i>Labor Intensity</i>	Number of employees divided by real sales, where sales are adjusted using 2015 dollars.
<i>Unsecured Debt</i>	The ratio of unsecured debt to total debt, where unsecured debt equals total debt minus secured debt ( <i>dm</i> ).
<i>Ind. CF Risk</i>	The operating cash flow volatility for a three-digit SIC code industry, where cash flow volatility is the standard deviation of ROA over a 7-year rolling window.

<i>Creditor Reliance</i>	An indicator variable equal to one for a firm with a debt-to-equity ratio greater than the sample year median, and equal to zero otherwise.
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Control Variables	Description
<i>Size</i>	The natural logarithm of the value of total book assets in millions, where assets are adjusted using 2015 dollars.
<i>Ln(Age)</i>	The natural logarithm of one plus the number of firm-year observations since the firm's first appearance in Compustat.
<i>HHI</i>	The Herfindahl-Hirschman Index for a particular industry defined as the sum of squared market shares for all firms in a three-digit SIC industry. The market share of firm <i>i</i> is defined as the value of sales of firm <i>i</i> divided by the total value of sales in the industry of firm <i>i</i> .
<i>SG</i>	The natural logarithm of the value of sales in year <i>t</i> divided by the value of sales in year <i>t-1</i> .
<i>DEQ</i>	Long-term debt ( <i>dltt</i> ) divided by book equity, where book equity is calculated as in Fama and French (1992).
<i>Firm Liquidity</i>	Current assets minus current liabilities ( <i>lct</i> ) divided by the value of total book assets ( <i>at</i> ).
<i>CAPX/Assets</i>	Capital expenditures divided by the value of total book assets.
<i>Inst. Own</i>	The percent ownership of a firm by its institutional owners, measured by their equity ownership in their 13F holdings reports from Thomson Reuters, weighted by the firm's market capitalization.
<i>BCL (CSL)</i>	An indicator variable equal to one if a firm is incorporated in a state that has an effective business combination (control share) law, and zero otherwise. We use effective (and adoption) dates provided by Cain, McKeon and Solomon (2017) and Karpoff and Wittry (2018).
<i>FPL (PPL)</i>	An indicator variable equal to one if a firm is incorporated in a state that has an effective fair price (poison pill) law, and zero otherwise. We use effective (and adoption) dates provided by Cain, McKeon and Solomon (2017) and Karpoff and Wittry (2018).
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Predictor Variables	Description
<i>Inc.State-Year (Δ) [Variable Name]</i>	The average (change in) [ <i>Variable Name</i> ] of all firms incorporated within a state, in a given year, where [ <i>Variable Name</i> ] is as defined above.
<i>Inc.State Ind-Year Q</i>	The average <i>Industry-Year Q</i> of all firms incorporated within a state and in a three-digit SIC code industry, in a given year.

<i>Ln(Inc. State GDPPC)</i>	The natural logarithm of an incorporating state's GDP (in thousands) divided by its total population. We use data from the U.S. Bureau of Economic Analysis.
<i>Inc. State GDP Growth</i>	The incorporated state-level GDP growth rate over the fiscal year. We use data from the U.S. Bureau of Economic Analysis.
<i>Inc. State % Republican</i>	The proportion of incorporated state-level representatives in the U.S. House of Representatives whom belong to the Republican party, in a given year. We use data from the Book of the States for this measure.
<i>Inc. State-Year Ln(Patent)</i>	The average <i>Ln(Patent)</i> of all firms incorporated within a state, in a given year, where <i>Ln(Patent)</i> is defined as the natural logarithm of one plus the total number of patents granted in a given year.

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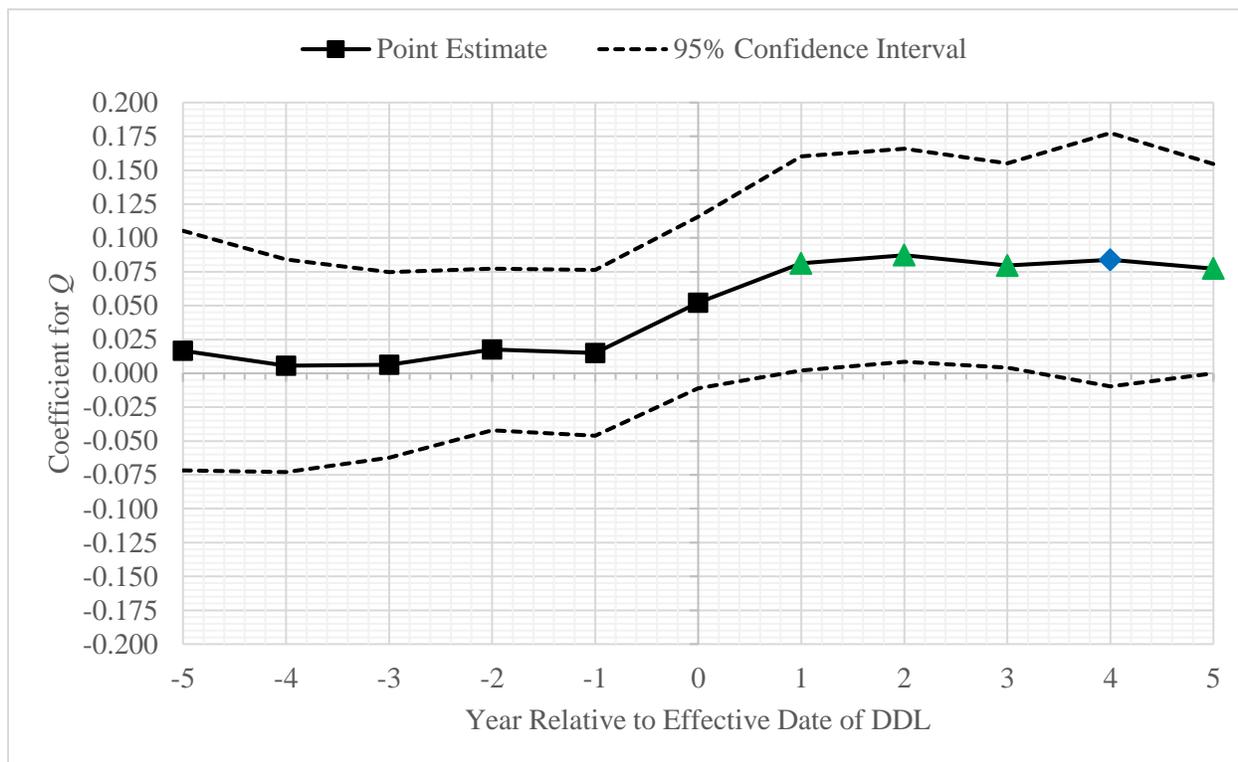
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**Figure 1: The Impact of Stakeholder Orientation on Firm Value.** This figure shows the timing of the impact of an effective DDL on  $Q$ . We plot the coefficient estimates from regressing  $Q$  on firm, HQ division-by-year, and industry-by-year fixed effects, four other antitakeover law indicators, and dummy variables indicating the year relative to the effective date of the DDL on the y-axis. Our dummies are created for up to 10 years before and after their effective dates. The last dummy is set to one if 7 or more years have elapsed since the effective date of the DDL and zero otherwise. The x-axis shows the time relative to the effective date of the DDLs. Dashed lines correspond to the 95% confidence intervals of the coefficient estimates, calculated from robust standard errors clustered by state of incorporation. Green triangles (blue diamonds) denote significance at the 5% (10%) level. The sample period is from 1983-2015.

**Table I: Explaining the Adoption of DDLs**

This table reports results from linear probability models analyzing the determinants of state adoption of DDLs. The dependent variable is the passage of a *DDL*. Once a firm is covered by a DDL, it is excluded from the rest of the panel. Independent variables are lagged one-year. We standardize continuous explanatory variables to have zero mean and unit variance and include incorporation state and year fixed effects. Other unreported insignificant predictors include *BCL*, *CSL* and *PPL*, and incorporation state-year averages of: *Size*, *Ln(Age)*, *HHI*, *SG*, *Loss*, *DEQ*, *Firm Liquidity*, *CAPX/Assets*, *R&D/Sales*, *Inst. Own*, *GDP Growth*, and *% Republican*. Appendix A provides variable definitions. All continuous variables are winsorized at the 2.5% level in both tails. *t*-statistics (based on robust standard errors that are independently double clustered by incorporation state and year) are reported in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level.

Dep. Variable: $DDL_t$	1983 - 2015			
Variables	(1)	(2)	(3)	(4)
<i>Inc.State-Year</i> $Q_{t-1}$	0.007 (0.30)	0.015 (0.66)	0.019 (0.75)	0.020 (0.77)
<i>Inc.State-Year</i> $\Delta Q_{t-1}$	-0.016 (-0.85)	-0.012 (-0.69)	-0.004 (-0.22)	-0.006 (-0.30)
<i>Inc.State Ind-Year</i> $Q_{t-1}$	-0.028 (-0.82)	-0.034 (-0.99)	-0.032 (-0.85)	-0.030 (-0.73)
<i>FPL</i> $_{t-1}$		0.220** (2.05)	0.221** (2.03)	0.227** (2.04)
$\ln(\text{Inc.State GDPPC})_{t-1}$			0.079 (1.32)	0.093 (1.42)
<i>Inc.State-Year Strategic Alliance</i> $_{t-1}$				-0.013 (-0.25)
<i>Inc.State-Year Large Customer</i> $_{t-1}$				0.016 (0.47)
<i>Inc.State-Year Supplier Dependency</i> $_{t-1}$				0.012 (0.64)
<i>Inc.State-Year Labor Intensity</i> $_{t-1}$				0.015 (1.01)
<i>Inc.State-Year Unsecured Debt</i> $_{t-1}$				-0.004 (-0.25)
<i>Inc.State-Year Investment Rate</i> $_{t-1}$				0.003 (0.10)
<i>Inc.State-Year Ln(Patent)</i> $_{t-1}$ <sup>a</sup>				-0.006 (-0.27)
Incorporation State FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
# of unique firms	8,826	8,826	8,826	7,968
N	75,177	75,177	75,177	59,385
Adjusted R <sup>2</sup>	0.249	0.304	0.322	0.332

<sup>a</sup> We only have patent data until 2010, and thus these observations are treated as missing from 2011 to 2015.

**Table II: The Value of Stakeholder Orientation**

This table reports the results for pooled panel regressions of Tobin's Q on a DDL indicator variable over the sample period 1983 to 2015. The main variables of interest,  $Q$ , and  $DDL$ , are measured contemporaneously, whereas the remaining controls are lagged one period. The even-numbered columns include dummies for other antitakeover laws:  $BCL$ ,  $CSL$ ,  $FPL$ , and  $PPL$ . Appendix A provides variable definitions. HQ-division fixed effects are measured using U.S. Census divisions and industry fixed effects are defined by the Fama-French 49 industry classifications. All continuous variables are winsorized at the 2.5% level in both tails.  $t$ -statistics (based on robust standard errors clustered by state of incorporation) are reported in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level.

Dep. Variable: $Q_t$	1983 - 2015			
Variables	(1)	(2)	(3)	(4)
$DDL_t$	0.067*** (3.04)	0.080** (2.54)	0.061** (2.60)	0.072** (2.37)
$Size_{t-1}$			-0.354*** (-20.35)	-0.354*** (-20.29)
$Ln(Age)_{t-1}$			-0.245*** (-6.22)	-0.246*** (-6.23)
$HHI_{t-1}$			0.015 (0.30)	0.014 (0.29)
$SG_{t-1}$			0.224*** (16.15)	0.224*** (16.24)
$Loss_{t-1}$			-0.068*** (-6.02)	-0.068*** (-6.03)
$DEQ_{t-1}$			-0.026*** (-9.40)	-0.026*** (-9.43)
$Firm\ Liquidity_{t-1}$			-0.004 (-0.13)	-0.005 (-0.14)
$CAPX/Assets_{t-1}$			0.347*** (3.00)	0.347*** (3.01)
$R\&D/Sales_{t-1}$			2.603*** (22.95)	2.604*** (22.93)
$Inst.\ Own_{t-1}$			0.389*** (17.85)	0.389*** (17.54)
Other antitakeover laws	No	Yes	No	Yes
Control variables	No	No	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
HQ Division $\times$ Year FE	Yes	Yes	Yes	Yes
Industry $\times$ Year FE	Yes	Yes	Yes	Yes
# of unique firms	11,264	11,264	11,264	11,264
N	101,989	101,989	101,989	101,989
Adjusted R <sup>2</sup>	0.566	0.566	0.597	0.597

**Table III: The Timing of DDLs and Firm Value Implications**

This table reports results for pooled panel regressions of Tobin's Q on DDL indicator variables for Compustat firms over the period 1983 to 2015.  $DDL^{[-2 \text{ or } -1]}$  is an indicator variable equal to one if a firm is incorporated in a state that will enact an effective DDL in one or two years and equal to zero otherwise.  $DDL^{[0]}$  is an indicator variable equal to one if a firm is incorporated in a state that enacted an effective DDL in the current year and equal to zero otherwise.  $DDL^{[+1 \text{ or } +2]}$  is an indicator variable equal to one if a firm is incorporated in a state that enacted an effective DDL one or two years ago and equal to zero otherwise.  $DDL^{[3+]}$  is an indicator variable equal to one if a firm is incorporated in a state that enacted an effective DDL three or more years ago and equal to zero otherwise. All control variables are lagged one-period. The even-numbered columns include dummies for other antitakeover laws: *BCL*, *CSL*, *FPL*, and *PPL*. The last two columns specify: *Size*, *Ln(Age)*, *HHI*, *SG*, *Loss*, *DEQ*, *Firm Liquidity*, *CAPX/Assets*, *R&D/Sales*, and *Inst. Own*. Appendix A provides variable definitions. HQ division fixed effects are measured using U.S. Census divisions and industry fixed effects are defined by the Fama-French 49 industry classifications. All continuous variables are winsorized at the 2.5% level in both tails. *t*-statistics (based on robust standard errors clustered by state of incorporation) are reported in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level.

Dep. Variable: $Q_t$	1983 - 2015			
Variables	(1)	(2)	(3)	(4)
$DDL_t^{[-2 \text{ or } -1]}$	0.012 (0.63)	0.010 (0.56)	0.009 (0.52)	0.008 (0.47)
$DDL_t^{[0]}$	0.039 (1.50)	0.044 (1.52)	0.041 (1.63)	0.043 (1.64)
$DDL_t^{[+1]}$	0.059** (2.13)	0.073* (1.87)	0.060** (2.39)	0.067* (1.99)
$DDL_t^{[+2]}$	0.067** (2.30)	0.079** (2.07)	0.073** (2.47)	0.080** (2.17)
$DDL_t^{[3+]}$	0.073** (2.54)	0.089*** (2.70)	0.061** (2.04)	0.072** (2.08)
Other antitakeover laws	No	Yes	No	Yes
Control variables	No	No	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
HQ Division $\times$ Year FE	Yes	Yes	Yes	Yes
Industry $\times$ Year FE	Yes	Yes	Yes	Yes
# of unique firms	11,264	11,264	11,264	11,264
N	101,989	101,989	101,989	101,989
Adjusted R <sup>2</sup>	0.566	0.566	0.597	0.597

**Table IV: The Value of Stakeholder Orientation in a Matched Sample**

This table reports summary statistics and regression results for a matched sample. *Treated* (control) firms are defined as companies incorporated in states with (without) an effective DDL (in at least the five-year period following the effective date for its matched counterpart). We use propensity score matching with replacement in year  $t-1$  to create a sample matched on  $Q$ ,  $Size$ ,  $Ln(Age)$ ,  $Loss$ ,  $Inst. Own$ ,  $Strategic Alliance$ ,  $Supplier Dependency$ ,  $Unsecured Debt$ ,  $Ln(Patent)$  and exactly on HQ divisions and Fama-French 49 industry classifications. Panel A shows pre-treatment year summary statistics. We also report differences between sample means ( $t$ -stat in parentheses). Panel B provides matched sample  $Q$  regression results. The main variables of interest,  $Q$  and  $Treated \times Post$ , are measured contemporaneously, whereas remaining controls are lagged one year. Included controls:  $BCL$ ,  $CSL$ ,  $FPL$ ,  $PPL$ ,  $Size$ ,  $Ln(Age)$ ,  $HHI$ ,  $SG$ ,  $Loss$ ,  $DEQ$ ,  $Firm Liquidity$ ,  $CAPX/Assets$ ,  $R\&D/Sales$ , and  $Inst. Own$  (column specific).  $Treated$  and  $Post$  are omitted due to collinearity with fixed effects. Appendix A provides variable definitions. HQ division fixed effects are measured using U.S. Census divisions and industry fixed effects are defined by the Fama-French 49 industry classifications. Continuous variables are winsorized at the 2.5% level in both tails.  $t$ -statistics (based on robust standard errors clustered by state of incorporation) are reported in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level.

**Panel A: Pre-Treatment Year ( $t-1$ ) Summary Statistics**

	(1)	(2)	(3)
<b>Matched Variables:</b>	Treated	Control	Difference
$Q_t$	1.706 (1.218)	1.668 (1.129)	0.039 (0.75)
$Size_t$	4.647 (2.004)	4.776 (1.990)	-0.128 (-1.47)
$Ln(Age)_t$	2.406 (0.727)	2.409 (0.725)	-0.003 (-0.10)
$Loss_t$	0.320 (0.467)	0.340 (0.474)	-0.020 (-0.98)
$Inst. Own_t$	0.154 (0.212)	0.149 (0.214)	0.006 (0.59)
$Strategic Alliance_t$	0.013 (0.115)	0.014 (0.119)	-0.001 (-0.19)
$Supplier Dependency_t$	0.004 (0.013)	0.003 (0.011)	0.001 (1.54)
$Unsecured Debt_t$	0.542 (0.396)	0.529 (0.405)	0.013 (0.73)
$Ln(Patent)_t$	0.060 (0.176)	0.055 (0.154)	0.004 (0.62)
$HQ Division_t$	4.145 (2.427)	4.145 (2.427)	0.000 (0.00)
$Industry_t$	28.646 (11.915)	28.646 (11.915)	0.000 (0.00)
N (by group)	1,038	1,038	

**Table IV– (Continued)****Panel B: Matched Sample  $Q$  Regression Results**

Dep. Variable: $Q_t$	$(t-3)$ to $(t+3)$			
<b>Variables</b>	(1)	(2)	(3)	(4)
$Treated_t \times Post_t$	0.049** (2.16)	0.055** (2.50)	0.076** (2.58)	0.076*** (2.75)
Other antitakeover laws	Yes	Yes	Yes	Yes
Control variables	No	Yes	No	Yes
Including $t = 0$ obs.	Yes	Yes	No	No
Firm FE	Yes	Yes	Yes	Yes
HQ Division $\times$ Year FE	Yes	Yes	Yes	Yes
Industry $\times$ Year FE	Yes	Yes	Yes	Yes
# of unique firms	1,605	1,605	1,605	1,605
N	10,081	10,081	8,476	8,476
Adjusted $R^2$	0.697	0.711	0.698	0.712

**Table V: Stakeholder Orientation and Alternative Value Measures**

This table reports results for regressions of alternative value measures on *DDL*. Panel A (B) is specific to the pooled panel (matched) sample over the period (estimation windows of) 1983 to 2015 ( $t \pm 3$ ). The main variables of interest, *Mkt Adj. Excess Ret*, *FF4 Adj. Excess Ret*, *Total Q*, *DDL*, and *Treated × Post*, are measured contemporaneously, while *ROA* and *ROCE* are led one year, and the remaining controls are lagged one period. Each of the five columns in both panels include the full set of controls variables: *BCL*, *CSL*, *FPL*, *PPL*, *Size*, *Ln(Age)*, *HHI*, *SG*, *Loss*, *DEQ*, *Firm Liquidity*, *CAPX/Assets*, *R&D/Sales*, and *Inst. Own*. Appendix A provides variable definitions. HQ division fixed effects are measured using U.S. Census divisions and industry fixed effects are defined by the Fama-French 49 industry classifications. All continuous variables are winsorized at the 2.5% level in both tails. *t*-statistics (based on robust standard errors clustered by state of incorporation) are reported in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level.

**Panel A: Pooled Panel Regression Results**

Dep. Variables:	1983 to 2015				
	<i>Mkt Adj. Excess Ret<sub>t</sub></i>	<i>FF4 Adj. Excess Ret<sub>t</sub></i>	<i>Total Q<sub>t</sub></i>	<i>ROA<sub>t+1</sub></i>	<i>ROCE<sub>t+1</sub></i>
<b>Variables</b>	(1)	(2)	(3)	(4)	(5)
<i>DDL<sub>t</sub></i>	0.026** (2.18)	0.025** (2.15)	0.048* (1.80)	0.008** (2.27)	0.010** (2.05)
Other antitakeover laws	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
HQ State × Year FE	Yes	Yes	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes	Yes
# of unique firms	11,264	11,264	11,238	8,756	8,564
N	101,989	101,989	101,560	90,844	86,775
Adjusted R <sup>2</sup>	0.123	0.097	0.570	0.526	0.598

**Table V – (Continued)**

**Panel B: Matched Sample Regression Results**

Dep. Variables:	<i>Mkt Adj.</i> <i>Excess Ret<sub>t</sub></i>	<i>FF4 Adj.</i> <i>Excess Ret<sub>t</sub></i>	<i>(t-3) to (t+3)</i> <i>Total Q<sub>t</sub></i>	<i>ROA<sub>t+1</sub></i>	<i>ROCE<sub>t+1</sub></i>
<b>Variables</b>	(1)	(2)	(3)	(4)	(5)
<i>Treated<sub>t</sub> × Post<sub>t</sub></i>	0.059** (2.05)	0.062** (2.12)	0.057* (1.72)	0.015* (1.75)	0.010* (1.75)
Other antitakeover laws	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
HQ State × Year FE	Yes	Yes	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes	Yes
# of unique firms	1,573	1,573	1,574	1,619	1,586
N	8,443	8,443	8,443	8,317	7,985
Adjusted R <sup>2</sup>	0.153	0.162	0.691	0.543	0.635

**Table VI: Portfolio Analysis: DDLs and Abnormal Returns**

This table reports abnormal returns of monthly portfolios using the treated and control firms from the propensity score matched sample around the effective date of the DDLs. The long portfolios are composed in the following manner. For portfolios *6m12* and *6m24* we include all stocks of matched firms that are incorporated in enacting states starting 6 months before the fiscal year-end of the year in which the incorporating state has an effective DDL in place and hold these stocks for 12 or 24 months. Similarly, the short portfolios are constructed by including all stocks of control firms that are matched to a treated company incorporated in enacting states starting 6 months before the fiscal year-end of the year in which that treated incorporating state has an effective DDL in place, and short these control group stocks for 12 or 24 months. The long-short portfolios are then created by differencing the portfolio returns of the long and short portfolios, for each respective month. We use two models: the four-factor Carhart (1997) model (i.e., momentum, high minus low book-to-market (HML), small minus big (SMB), and market return), and the three-factor Fama-French (1993) model (i.e., HML, SMB, and market return), where each of the models uses a value-weighted market factor. Appendix A provides variable definitions. The portfolio returns are winsorized at the 2.5% level in both tails, and *t*-statistics (based on robust standard errors) are presented in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level. The number of stocks in the long and short portfolios are averaged across all months and displayed in the “Average # firms” row. The “M” row shows the total number of monthly observations, and the “N” row shows the total number of firms with useable returns.

Portfolio “6m12”	Four-factor model			Three-factor model		
	Long	Short	Long - Short	Long	Short	Long - Short
Alpha (monthly)	0.503** (2.05)	0.070 (0.02)	0.433* (1.72)	0.484** (2.01)	-0.254 (-0.79)	0.738** (1.99)
Average # firms	101.35	100.82	-	101.35	100.82	-
M	170	170	170	170	170	170
N	992	990	-	992	990	-
Adjusted R <sup>2</sup>	0.710	0.328	0.092	0.711	0.307	0.077

Portfolio “6m24”	Four-factor model			Three-factor model		
	Long	Short	Long - Short	Long	Short	Long - Short
Alpha (monthly)	0.618*** (2.89)	0.082 (0.59)	0.536* (1.74)	0.541*** (2.70)	-0.064 (-0.21)	0.606* (1.73)
Average # firms	130.20	128.11	-	130.20	128.11	-
M	212	212	212	212	212	212
N	992	991	-	992	991	-
Adjusted R <sup>2</sup>	0.670	0.288	0.069	0.669	0.285	0.072

**Table VII: Policies and Stakeholder Orientation: Innovation and Financial Soundness**

This table reports results for pooled panel regressions of proxies for *Innovation* and *Financial Soundness*, respectively, on a *DDL* indicator variable over the period 1983 to 2015. Our *Innovation* measures include: *R&D/Sales*, *Ln(CW Patent)*, and *Ln(SM Patent)*. We proxy for *Financial Soundness* using the following: *Loss*, *Default Risk*, and *Short-Term Debt*. The main variables of interest, *R&D/Sales*, *Ln(CW Patent)*, *Ln(SM Patent)*, *Loss*, *Default Risk*, and *ST Debt*, are led one year ( $t+1$ ). *DDL* is measured contemporaneously, while the controls are lagged one period. Included controls, unless specified as a dependent variable: *Size*, *Ln(Age)*, *HHI*, *Loss*, *DEQ*, *Firm Liquidity*, *CAPX/Assets*, *R&D/Sales*, *Inst. Own*, *BCL*, *CSL*, *FPL*, and *PPL*. Appendix A provides variable definitions. HQ division fixed effects are measured using U.S. Census divisions and industry fixed effects are defined by the Fama-French 49 industry classifications. All continuous variables are winsorized at the 2.5% level in both tails. *t*-statistics (based on robust standard errors clustered by state of incorporation) are reported in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level.

Dep. Variables:	1983 to 2015					
	<i>R&amp;D/Sales</i> <sub><i>t</i>+1</sub>	<i>Ln(CW Patent)</i> <sub><i>t</i>+1</sub>	<i>Ln(SM Patent)</i> <sub><i>t</i>+1</sub>	<i>Loss</i> <sub><i>t</i>+1</sub>	<i>Default Risk</i> <sub><i>t</i>+1</sub>	<i>ST Debt</i> <sub><i>t</i>+1</sub>
<b>Variables</b>	(1)	(2) <sup>a</sup>	(3)	(4)	(5)	(6)
<i>DDL</i> <sub><i>t</i></sub>	0.003** (2.19)	0.043* (1.72)	0.072** (2.01)	-0.022** (-2.61)	-0.023* (-1.91)	-0.016** (-2.27)
Other antitakeover laws	Yes	Yes	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
HQ Division × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
# of unique firms	9,826	9,502	9,502	9,826	9,826	9,322
N	90,922	82,192	82,192	90,921	90,922	79,576
Adjusted R <sup>2</sup>	0.710	0.747	0.750	0.403	0.658	0.509

<sup>a</sup> The regression analysis in columns (2) and (3) ends in 2009 since our patent data only extends to 2010 and our *Ln(CW Patent)* and *Ln(SM Patent)* dependent variables are ( $t+1$ ).

**Table VIII: Stakeholder Orientation, Complexity, and Firm Value**

This table reports results for pooled panel regressions of Tobin's Q on a  $DDL \times Complexity$  interaction term over the period 1983 to 2015. We proxy for *Complexity* in the following ways: *Large Firm* is an indicator variable assigned a value of one for firms with  $Ln(Assets)$  in the top quartile of their four-digit SIC code industry, and zero otherwise. *Firm Sales* is equal to the natural logarithm of real sales revenue, adjusted using 2015 dollars. *Size* is measured as the natural logarithm of real assets, adjusted using 2015 dollars. *Employees* is the natural logarithm of one plus the total number of a firm's employees. The main variables of interest,  $Q$  and  $DDL$ , are measured contemporaneously, whereas the *Complexity* proxies and the other remaining controls are lagged one period. Included control variables: *BCL*, *CSL*, *FPL*, *PPL*,  $Ln(Age)$ , *HHI*, *SG*, *Loss*, *DEQ*, *Firm Liquidity*, *CAPX/Assets*, *R&D/Sales* and *Inst. Own*. Appendix A provides variable definitions. HQ division fixed effects are measured using U.S. Census divisions and industry fixed effects are defined by the Fama-French 49 industry classifications. All continuous variables are winsorized at the 2.5% level in both tails.  $t$ -statistics (based on robust standard errors clustered by state of incorporation) are reported in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level.

Dep. Variable: $Q_t$	1983 – 2015			
Variables	(1)	(2)	(3)	(4)
$DDL_t \times Large Firm_{t-1}$	0.060** (2.13)			
$DDL_t \times Firm Sales_{t-1}$		0.024** (2.15)		
$DDL_t \times Size_{t-1}$			0.032** (2.39)	
$DDL_t \times Employees_{t-1}$				0.048*** (2.78)
$DDL_t$	0.057* (1.84)	-0.056 (-0.72)	-0.094 (-1.04)	0.015 (0.38)
$Large Firm_{t-1}$	-0.136*** (-11.84)			
$Firm Sales_{t-1}$		-0.235*** (-22.79)		
$Size_{t-1}$			-0.362*** (-26.52)	
$Employees_{t-1}$				-0.208*** (-11.28)
Other antitakeover laws	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
HQ Division $\times$ Year FE	Yes	Yes	Yes	Yes
Industry $\times$ Year FE	Yes	Yes	Yes	Yes
# of unique firms	11,264	11,264	11,264	11,134
N	101,989	101,989	101,989	100,500
Adjusted R <sup>2</sup>	0.582	0.592	0.597	0.583

**Table IX: Stakeholder Orientation, Endogenous Risks, and Firm Value**

This table reports results for pooled panel regressions of Tobin's Q on a  $DDL \times Endogenous Risks$  interaction term. *Endogenous Risks* proxies are based on the following innovation-based measures: *R&D/Sales*, *Investment Rate*,  $\ln(CW Patent)$ , and *RQ*. The main variables of interest, *Q* and *DDL*, are measured contemporaneously, whereas the *Endogenous Risks* proxies and the other remaining controls are lagged one period. Controls variables include: *BCL*, *CSL*, *FPL*, *PPL*, *Size*,  $\ln(Age)$ , *HHI*, *SG*, *Loss*, *DEQ*, *Firm Liquidity*, *CAPX/Assets*, *R&D/Sales*, and *Inst. Own*. Appendix A provides variable definitions. HQ division fixed effects are measured using U.S. Census divisions and industry fixed effects are defined by the Fama-French 49 industry classifications. All continuous variables are winsorized at the 2.5% level in both tails. *t*-statistics (based on robust standard errors clustered by state of incorporation) are reported in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level.

Dep. Variable: $Q_t$	1983 – 2015			
Variables	(1)	(2)	(3) <sup>a</sup>	(4)
$DDL_t \times R\&D/Sales_{t-1}$	0.992** (2.64)			
$DDL_t \times Investment Rate_{t-1}$		0.406*** (2.71)		
$DDL_t \times \ln(CW Patent)_{t-1}$			0.031** (2.24)	
$DDL_t \times RQ_{t-1}$				0.611** (2.06)
$DDL_t$	0.038 (1.29)	0.033 (1.31)	0.039 (1.22)	-0.054 (-0.98)
$R\&D/Sales_{t-1}$	0.993*** (12.39)			
$Investment Rate_{t-1}$		-0.024 (-0.40)		
$\ln(CW Patents)_{t-1}$			-0.002 (-0.31)	
$RQ_{t-1}$				-0.068 (-0.72)
Other antitakeover laws	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
HQ Division $\times$ Year FE	Yes	Yes	Yes	Yes
Industry $\times$ Year FE	Yes	Yes	Yes	Yes
# of unique firms	11,264	9,719	10,769	3,706
N	101,989	89,894	90,776	33,605
Adjusted R <sup>2</sup>	0.592	0.600	0.598	0.617

<sup>a</sup> The regression analysis in column (3) ends in 2010, since this is as far as our patent data extends.

**Table X: Stakeholder Orientation, Non-Financial Stakeholders, and Firm Value**

This table reports results for pooled panel regressions of Tobin's Q on a  $DDL \times Non\text{-}Financial\ Stakeholder$  interaction term. *Non-Financial Stakeholder* proxies include the following: *Strategic Alliance*, *Large Customer*, *Supplier Dependency*, and *Labor Intensity*. The main variables of interest,  $Q$  and  $DDL$ , are measured contemporaneously, whereas the *Non-Financial Stakeholder* proxies and the other remaining controls are lagged one period. Included controls: *BCL*, *CSL*, *FPL*, *PPL*, *Size*,  $\ln(Age)$ , *HHI*, *SG*, *Loss*, *DEQ*, *Firm Liquidity*, *CAPX/Assets*, *R&D/Sales*, and *Inst. Own*. Appendix A provides variable definitions. HQ division fixed effects are measured using U.S. Census divisions and industry fixed effects are defined by the Fama-French 49 industry classifications. All continuous variables are winsorized at the 2.5% level in both tails.  $t$ -statistics (based on robust standard errors clustered by state of incorporation) are reported in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level.

Dep. Variable: $Q_t$	1983 – 2015			
Variables	(1)	(2)	(3)	(4)
$DDL_t \times Strategic\ Alliance_{t-1}$	0.149** (2.20)			
$DDL_t \times Large\ Customer_{t-1}$		0.090** (2.58)		
$DDL_t \times Supplier\ Dependency_{t-1}$			1.151** (2.29)	
$DDL_t \times Labor\ Intensity_{t-1}$				0.048*** (4.09)
$DDL_t$	0.065** (2.13)	0.067** (2.32)	0.068** (2.30)	0.067** (2.41)
$Strategic\ Alliance_{t-1}$	-0.028 (-0.75)			
$Large\ Customer_{t-1}$		0.039* (1.73)		
$Supplier\ Dependency_{t-1}$			0.010*** (10.64)	
$Labor\ Intensity_{t-1}$				0.013*** (3.26)
Other antitakeover laws	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
HQ Division $\times$ Year FE	Yes	Yes	Yes	Yes
Industry $\times$ Year FE	Yes	Yes	Yes	Yes
# of unique firms	11,264	11,264	11,264	11,154
N	101,989	101,989	101,989	100,576
Adjusted R <sup>2</sup>	0.599	0.599	0.599	0.599

**Table XI: Stakeholder Orientation, Creditors, and Firm Value**

This table reports results for pooled panel regressions of Tobin's  $Q$  on a  $DDL \times Creditor Stakeholder$  interaction term. *Creditor Stakeholder* proxies include the following: *Unsecured Debt*, *Ind. CF Risk*, *Creditor Reliance*, and *Default Risk*. The main variables of interest,  $Q$  and  $DDL$ , are measured contemporaneously, whereas the *Creditor Stakeholder* proxies and the other remaining controls are lagged one period. Included controls are: *BCL*, *CSL*, *FPL*, *PPL*, *Size*,  $\ln(\text{Age})$ , *HHI*, *SG*, *Loss*, *DEQ*, *Firm Liquidity*, *CAPX/Assets*, *R&D/Sales*, and *Inst. Own*. Appendix A provides variable definitions. HQ division fixed effects are measured using U.S. Census divisions and industry fixed effects are defined by the Fama-French 49 industry classifications. All continuous variables are winsorized at the 2.5% level in both tails.  $t$ -statistics (based on robust standard errors clustered by state of incorporation) are reported in parentheses. \*10%, \*\*5%, and \*\*\*1% significance level.

Dep. Variable: $Q_t$	1983 – 2015			
Variables	(1)	(2)	(3)	(4)
$DDL_t \times Unsecured Debt_{t-1}$	0.049** (2.45)			
$DDL_t \times Ind. CF Risk_{t-1}$		0.131*** (2.74)		
$DDL_t \times Creditor Reliance_{t-1}$			0.052** (2.58)	
$DDL_t \times Default Risk_{t-1}$				0.065* (1.77)
$DDL_t$	0.038 (1.34)	0.038 (1.11)	0.044 (1.33)	0.045 (1.49)
$Unsecured Debt_{t-1}$	0.017 (1.60)			
$Ind. CF Risk_{t-1}$		-0.025 (-0.82)		
$Creditor Reliance_{t-1}$			-0.258*** (-25.23)	
$Default Risk_{t-1}$				-0.186*** (-7.88)
Other antitakeover laws	Yes	Yes	Yes	Yes
Control variables	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
HQ Division $\times$ Year FE	Yes	Yes	Yes	Yes
Industry $\times$ Year FE	Yes	Yes	Yes	Yes
# of unique firms	10,618	11,264	11,264	11,264
N	87,421	101,989	101,989	101,989
Adjusted $R^2$	0.605	0.595	0.597	0.599