Stakeholder Orientation and the Cost of Debt: Evidence from State-level Adoption of Constituency Statutes

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Abstract

We examine the causal effect of stakeholder orientation on firms' cost of debt. Our test exploits the staggered state-level adoption of constituency statutes, which allows directors to consider stakeholders' interests when making business decisions. We find a significant drop in loan spreads for firms incorporated in states that adopted such statutes relative to firms incorporated elsewhere. We further show that constituency statutes reduce the cost of debt through the channels of mitigating conflicts of interest between residual and fixed claimants and between holders of liquid claims and holders of illiquid claims, limiting legal liability, and lowering takeover threats.

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I. Introduction

Stakeholder orientation (often referred to as corporate social responsibility (CSR) nowadays) has drawn increasing attention from academics and practitioners over the past decade. However, most of the existing literature focuses on the effect of stakeholder orientation on equity holders (e.g., Jensen 2001; Pagano and Volpin 2005; Deng, Kang, and Low 2013; Flammer and Kacperczyk 2016), whereas the effect of stakeholder orientation on debtholders is relatively under-studied. Such oversight limits our understanding of the broad implications of adopting a stakeholder-oriented perspective in corporate decision-making, given that debt financing is the most significant source of financing to most modern corporations (Myers 2003). In this paper, we fill a gap in the literature by establishing a causal effect of stakeholder orientation on (reducing) firms' cost of debt.

Our test exploits the staggered adoption of constituency statutes by various U.S. states, which allows corporate directors to consider stakeholders' interests when making business decisions. We hypothesize that a state's adoption of such statutes could reduce the cost of debt for firms incorporated in that state because these statutes help (1) mitigate conflicts of interest between residual claimants (mostly shareholders) and fixed claimants (mostly other stakeholders); (2) mitigate conflicts of interest between holders of liquid claims (also mostly shareholders) and holders of largely illiquid claims (also mostly other stakeholders); (3) limit legal risk; and (4) lower takeover threats.

From an empirical test standpoint, there are two reasons that explain why relying on such state-level law changes is highly appealing. First, constituency statutes are adopted in the state of incorporation rather than the state of headquarters where a firm's main business operations are conducted and where a firm could be influential. A firm's state of incorporation often differs

from that of its headquarters,[1] which helps alleviate the concern that a change in local economic conditions in the state of a firm's headquarters might be the omitted factor driving both the adoption of constituency statutes and the change in the cost of debt. Second, the staggered adoption in different states enables us to identify the effect in a difference-in-differences framework. Because multiple exogenous shocks affect different firms at different points in time, we can avoid the common identification difficulty faced by studies with a single shock: the potential biases and noise coinciding with the shock that directly affects the cost of debt (Roberts and Whited 2013).

Using a sample of 36,519 bank loans of U.S. public firms from 1987 to 2012 and a difference-in-differences approach, we show that, on average, firms incorporated in states that adopted constituency statutes experience a drop in the loan spread by approximately 32 basis points relative to firms incorporated in states that did not adopt such statutes. In terms of economic significance, this drop in the loan spread translates into an average savings in interest payments of $1.2 million per year. Our findings are robust to controlling for firm and loan characteristics and macro factors, and across different subsamples.

The identifying assumption central to a causal interpretation of the difference-in-differences specification is that the treated and control firms share parallel trends prior to a state's law change. We show that the pre-treatment trends of these two groups of firms are indeed indistinguishable, and that most of the impact of constituency statutes on the cost of debt occurs after a state's law change takes effect, which suggests a causal effect.

[1] In our sample, about three-quarters of the firms are not incorporated in the same state as their headquarters.

We also find that the adoption of constituency statutes leads to fewer covenant restrictions and a lower likelihood of collateral requirement, and further find lower bond yield spreads for firms incorporated in states that adopted such statutes relative to those that did not.

In terms of the channels underlying our findings, we examine the cross-sectional variation in the treatment effect. We find that the treatment effect is stronger for firms close to financial distress (i.e., when conflicts of interest between fixed and residual claimants are likely to be more severe); when a larger portion of firms' ownership is held by short-term shareholders (i.e., when conflicts of interest between liquid and illiquid claimants are likely to be more severe); when firms have a higher litigation risk; and when firms face greater takeover threats. We further show that the adoption of constituency statutes helps mitigate debt overhang and reduces a firm's risk of default, myopic behavior, and litigation risk. The evidence supports our proposition that constituency statutes help reduce a firm's cost of debt through the channels of mitigating conflicts of interest between residual and fixed claimants and between holders of liquid claims and holders of largely illiquid claims, limiting legal liability, and lowering takeover threats.

Our paper makes three major contributions to the literature. First, our paper is related to the literature on corporate objectives and thus the debate on whether fiduciary should be extended to other stakeholders in general (e.g., Zingales 2000; Tirole 2001); and the literature examining the importance of nonfinancial stakeholders, such as employees and customers, for corporate decisions/outcomes (e.g., Faleye, Mehrotra, and Morck 2006; Kale and Shahrur 2007; Bae, Kang, and Wang 2011; Chen, Kacperczyk, and Ortiz-Molina 2012; Cen, Dasgupta, Elkamhi, and Pungaliya 2016). Unlike those studies, we examine the importance of considering all stakeholders' interests as a whole, and show that one of the channels through which a state's

adoption of constituency statutes lower its firms' cost of bank loans is via firms' adopting stakeholder-oriented corporate objectives.

Second, our paper adds to the literature on bank loan contracting. This literature is important given that bank loans represent one of the key sources of corporate financing (Myers 2003). Prior research on this topic focuses on factors such as accounting quality (Graham, Li, and Qiu 2008; Costello and Wittenberg-Moerman 2011; Kim, Song, and Zhang 2011), credit contagion (Hertzel and Officer 2012), executive compensation contracting (Chan, Chen, and Chen 2013), shareholder rights (Klock, Mansi, and Maxwell 2005; Chava, Livdan, and Purnanandam 2009), creditor rights (Qian and Strahan 2007; Bae and Goyal 2009; Becker and Strömberg 2012), and social capital (Hasan, Hoi, Wu, and Zhang 2017). Complementing prior literature, our study provides new empirical evidence that state-level constituency statutes have a causal effect on a firm's cost of bank loans and their non-price contract terms.

Third and finally, our paper is also related to the literature on CSR. Despite the growing importance of CSR, the value implications of CSR remain elusive and mainly focus on shareholders.[2] One group of researchers argues that CSR creates value because promoting the interests of other stakeholders increases their willingness to support a firm's operation, which in turn increases shareholder value (e.g., Jensen 2001; Deng, Kang, and Low 2013; Griffin, Guedhami, Li, and Lu 2020). Another group claims that CSR represents an inefficient wealth transfer from shareholders to other stakeholders (usually for the benefit of managers themselves) and thus hurts shareholders (e.g., Pagano and Volpin 2005; Cronqvist, Heyman, Nilsson, Svaleryd, and Vlachos 2009). Considering that cost of debt is a key component of a firm's cost

[2] One notable exception is Goss and Roberts (2011) who show that a higher CSR performance is associated with a lower cost of debt, but do not establish causality.

of capital and thus an important determinant of firm value, our study contributes to this literature by showing that enhanced CSR (at least partially) associated with constituency statutes helps lower firms' cost of debt.

The remainder of the paper is organized as follows. Section II provides background information about constituency statutes. Section III develops our hypothesis. Section IV describes our sample. Sections V and VI present our main findings. Section VII explores the friction that stops firms from engaging in CSR in the absence of constituency statutes, and Section VIII conducts robustness checks and additional investigation. We conclude in Section IX.

II. Institutional Background on Constituency Statutes

The origin of constituency statutes comes from a longstanding debate among legal scholars on the fundamental nature of corporations: whether a corporation's responsibility is exclusively to shareholders or to a broader group of stakeholders (Bainbridge 1992). In 1931, Adolf A. Berle, a professor at Columbia Law School, wrote *Corporate Powers as Powers in Trust,* an article published in the Harvard Law Review (Berle 1931). In this article, he posited, "…all powers granted to a corporation or to the management of a corporation, or to any group within the corporation, whether derived from statute or charter or both, are necessarily and at all times exercisable only for the ratable benefit of all the shareholders as their interest appears." Berle believed that corporations were simply vehicles for advancing and protecting shareholders' interests and that corporate law should be interpreted to reflect this principle. Based on this view, management should concentrate its attention on achieving shareholder value maximization.

One year later, E. Merrick Dodd, a professor at Harvard Law School, challenged Berle's position in his Harvard Law Review article *For Whom Are Corporate Managers Trustees?* (Dodd 1932), and set off a debate. Dodd advocated that corporations provide a social service as well as a profit-making function, stating: "…business is permitted and encouraged by the law primarily because it is of service to the community rather than because it is a source of profit to its owners." Dodd argued that managers were not trustees for shareholders alone, but instead were also trustees for employees, suppliers, consumers, and the general public.

The shareholder versus stakeholder debate was revitalized with the development of stakeholder management theories in the 1980s (e.g., Freeman 1984) and further fueled by the hostile takeover wave of the 1980s during which these transactions benefited target firm shareholders, and typically imposed significant costs on creditors, employees, customers, suppliers, and communities (e.g., Pontiff, Shleifer, and Weisbach 1990). The proponents of stakeholder interests sought to change corporate law to reflect their belief that corporations are more than just investment vehicles for owners of financial capital (Bainbridge 1992; Elhauge 2005). Ohio was the first state to adopt such statutes in 1984, and more than 30 states have since followed as of the end of 2012 (see Table 1).[3]

[Insert Table 1 about here]

The core principle of constituency statutes is that directors are allowed to run the firm in the interests of a broad group of stakeholders, instead of exclusively those of shareholders (Orts 1992; Springer 1999). For example, the Minnesota statutes state: "A director may, in considering

[3] Karpoff and Wittry (2018) identify only five firms that actively lobbied for the adoption of state-level constituency statutes in a takeover context (see their Table 3).

the best interests of the corporation, consider the interests of the corporation's employees, customers, suppliers, and creditors, the economy of the state and nation, community and societal considerations."[4] Constituency statutes thus provide corporate leaders with a legally enforceable mechanism—beyond case law and the business judgment rule—for considering stakeholder interests without breaching their fiduciary obligations to shareholders (Orts 1992; Adams and Matheson 2000; Stout 2012).[5] While the statutes are only permissive in nature, they are legally enforceable and marked an important shift away from the shareholder-oriented approach to corporate decision-making (Orts 1992; Stout 2012). For example, in the federal bankruptcy case In Re McCalla Interiors, Inc., 228 B.R. 657 (United States Bankruptcy Court, N.D. Ohio 1998), the court cited the Ohio constituency statute to defend the interests of employees and customers.[6]

[4] MINN. STAT. ANN. § 302A.251, subd. 5 (West Supp. 1985).

[5] See an illustrative quote from Geczy, Jeffers, Musto, and Tucker (2015, p. 95), "Constituency statutes expand the protection of the business judgment rule by permitting, not mandating, directors to consider nonshareholder constituents. In other words, directors would not face liability for actions justified, in part, by serving nonshareholder interests."

[6] After searching in the Westlaw database from 1983 through 2013, Geczy et al. (2015) identify 47 cases citing references to constituency statutes. Of the types of claims brought, seventeen cases (17/47) raised breach of fiduciary duty claims against directors in a takeover setting; eleven cases (11/47) alleged that directors breached other fiduciary duties (those arising outside of takeover contexts); and twelve cases (12/47) arose in the context of bankruptcy proceedings (in which trustees asserted claims against former directors for deepening insolvency or creditors of the now bankrupt corporation alleging that directors owed them enforceable fiduciary duties under the governing constituency statutes). Of the types of plaintiffs, twenty-four cases (24/47) were brought by shareholders; five cases (5/47) were brought by bankruptcy trustees; and seven cases (7/47) were brought by corporate creditors after corporate insolvency or bankruptcy. After studying the enforcement of these 47 cases, Geczy et al. (2015)

Existing literature finds that the adoption of constituency statutes has greatly influenced corporate decisions and enhanced the welfare of firms' stakeholders. For example, Luoma and Goodstein (1999) find that such statutes are associated with a greater representation of non-shareholding stakeholders as directors on the board. Flammer and Kacperczyk (2016) and Flammer (2018) show that such statutes are associated with a higher level of CSR performance, which in turn help firms enhance their innovation and win government procurement contracts.[7]

III. Hypothesis Development

Non-shareholding stakeholders broadly consist of creditors, employees, customers, suppliers, etc. We posit that constituency statutes will lower the cost of debt through the following four channels: (1) mitigating conflicts of interest between residual and fixed claimants, (2) mitigating conflicts of interest between shareholders and other stakeholders, (3) reducing legal risk, and (4) lowering takeover threats.

First, Fama (1990) points out that like creditors, most employees, customers, and suppliers are fixed claimants of a firm and hence have similar levels of risk preferences. For example, at a given point in time, employees provide labor for a fixed amount of wages, and suppliers provide goods and services to the firm for a fixed payoff, while the residual cash flow

conclude that constituency statutes do signal a change in the law—a clear departure from directors' duties established in Delaware cases such as Revlon and Unocal. Moreover, there is evidence that firms undertook more stakeholder-friendly policies after constituency statutes were passed.

[7] It is worth noting that, although innovation is a risky investment, it does not necessarily hurt debtholders. For example, Francis, Hasan, Huang, and Sharma (2012) show that patenting activities could help reduce information asymmetry between innovative borrowers and their lenders.

goes to shareholders.[8] Thus, shareholders (who are residual claimants) may have conflicts with these other stakeholders (sharing the commonality of being fixed claimants and having similar risk preferences) regarding firms' investment policies.

One example of such conflict is similar to the debt overhang problem of Myers (1977): When a firm is highly leveraged and debt is risky, residual claimants are unwilling to raise new capital to invest in projects that would make fixed claimants better off even if those projects were to have a positive net present value. Another example of such conflict between fixed and residual claimants is the risk-shifting problem (Jensen and Meckling 1976): Residual claimants have an incentive to increase the riskiness of a firm's existing assets, even when doing so would reduce firm value. These conflicts adversely affect creditors and as a result, creditors will demand higher interests (and/or more covenants). Compared to a firm that exclusively serves its shareholders' interests, a stakeholder-oriented firm is less likely to take advantage of fixed claimants for the benefit of residual claimants, and thus creditors would require lower interest rates and/or looser loan contract terms.

Second, constituency statutes will lower the cost of debt because it mitigates conflicts of interest between liquid claimants (those who can unwind their affiliation with a firm in a timely fashion, such as shareholders selling shares) and illiquid claimants (those who can only unwind their affiliation with a firm in a less timely fashion, such as creditors terminating their loans or suppliers changing customers). Existing literature shows important conflicts of interest between liquid and illiquid claimants. Stock liquidity tends to induce shareholders to focus on short-term

[8] Fama (1990) further notes that such fixed payoffs comprise about 90% of total cash flows in U.S. public firms. Based on all U.S. public firms in Compustat in 2014 and following the same method as Fama (1990), we find that such fixed payoffs comprise 80% of an average firm's total cash flow.

performance, since they can dump their stake promptly and opportunistically (Stein 1988; Bhide 1993; Gao, Harford, and Li 2017). For example, firms with more liquid claimants are more likely to engage in myopic opportunistic behavior (such as earnings manipulation) for short-term benefit at the expense of their long-term value (Bushee 1998, 2001; Bhojraj, Hribar, Picconi, and McInnis 2009). Given that creditors are illiquid claimants relative to shareholders, such potential conflicts of interest between liquid and illiquid claimants may lead creditors to require higher interest rates. Compared to a firm that exclusively serves its shareholders' interests, a stakeholder-oriented firm is less likely to have such conflicts of interest, and therefore will have a lower cost of debt and/or looser loan contract terms.

Third, constituency statutes will lower the cost of debt because it helps reduce a firm's legal risk. Constituency statutes initially were meant to provide legal cover for managers wishing to reject unwanted tender offers (Bebchuk and Ferrell 1999; Karpoff and Wittry 2018). After their state's adoption of constituency statutes, directors who consider nonshareholders' interests when making business decisions will be insulated from liability by the business judgment rule (e.g., Bainbridge 1992; Geczy, Jeffers, Musto, and Tucker 2015). Moreover, the management literature suggests that considering stakeholders' interests helps build positive moral capital among stakeholders, which can alleviate their negative judgments, which in turn lowers firms' litigation risk (Godfrey, Merrill, and Hansen 2009; Koh, Qian, and Wang 2014). Given that litigation causes disruption to firms' operations and increases firm risk and their cost of capital (Sharfman and Fernando 2008; Bennett, Milbourn, and Wang 2018), the adoption of constituency statutes helps limit legal liability, leading to a lower cost of debt.

Fourth and finally, constituency statutes will lower the cost of debt because it helps reduce a firm's exposure to takeover risk. As discussed in Section II, constituency statutes were

triggered by the takeover wave of the 1980s (although their reach was not limited to takeovers). Shleifer and Summers (1988) claim that target firm shareholders tend to use takeovers to extract rents from other stakeholders; this wealth transfer from other stakeholders to shareholders could comprise a large part of the takeover premium. Klock, Mansi, and Maxwell (2005), Chava, Livdan, and Purnanandam (2009), and Francis, Hasan, John, and Waisman (2010) find that firms with stronger takeover defenses have a lower cost of debt financing. Karpoff, Schonlau, and Wehrly (2019) show that constituency statutes indeed provide effective takeover deterrence. Given that constituency statutes help boards reject takeover bids that may potentially hurt other stakeholders (including debtholders), their adoption may lead to a lower cost of debt.

Based on the discussion above, we expect that a state's adoption of constituency statutes leads to a drop in the cost of debt for firms incorporated in that state relative to firms incorporated elsewhere.[9]

IV. Our Sample

We start with all U.S. public firms traded on the NYSE, AMEX, or NASDAQ with no missing value on total assets. We obtain bank loan information from the Loan Pricing Corporation's Dealscan database, which contains price terms of loans and non-price terms such as loan size, maturity, collateral, and covenants. We use the all-in spread drawn (hereinafter referred to as the loan spread) to measure the cost of bank loans, which is given as the additional basis points a borrower pays over the London Interbank Offered Rate (LIBOR). This measure

[9] It is worth noting that while legal risk and takeover deterrence are two distinct channels that do not necessarily reflect stakeholder orientation, all four channels could be potentially intertwined. For example, the general liability overhang problem (Rauh 2006; Bennett, Milbourn, and Wang 2018; Wittry 2019) can be alleviated by addressing conflicts of interest between fixed and residual claimants and/or by limiting legal risk.

includes any recurring annual fees paid to lenders. In addition to loan spreads, we also examine several non-price terms including covenant and collateral requirements. Given that loan contracts are highly complex and detailed, Dealscan has limited coverage on those terms (Chava, Livdan, and Purnanandam 2009). About 70% of our sample has information on whether the loan is secured by collateral or not, and about a quarter of our sample has information on equity issuance sweep, debt issuance sweep, and asset sales sweep. These sweeps require the borrower to prepay loans with funds from equity issuance, debt issuance, or asset sales. We utilize the Compustat-Dealscan link file provided by Chava and Roberts (2008) to merge Dealscan with Compustat.[10]

Our sample period starts in 1987 the year in which Dealscan had good coverage of loans,[11] and ends in 2012, five years after the re-enactment of constituency statutes by Nebraska in 2007.[12] Our final sample consists of 36,519 loan observations (issued by 5,676 unique firms) and 22,888 firm-year observations for the sample period 1987–2012; 9,965 loans are issued in states with constituency statutes, and 26,554 loans are in states without.

We obtain historical information on a firm's state of incorporation from different sources. For the period before 1994 (during which electronic filing was not available), we obtain relevant information from Compact Disclosure; for the period 1994−2007, we obtain such information

[10] The link file covers loans until the middle of 2012; we use company name matching for loans issued after that period.

[11] According to Santos and Winton (2008), Dealscan's coverage started in the early 1980s, and became more comprehensive since the late 1980s.

[12] The Nebraska constituency statute was repealed effective 1995, and was later re-enacted effective 2007.

from the Securities and Exchange Commission's (SEC) EDGAR website;[13] for the period 2008−2012, we obtain such information from the Compustat-CRSP merged database.

We control for a number of firm characteristics, loan characteristics, and macro factors that may affect the cost of bank loans; these controls are motivated by prior literature (e.g., Graham, Li, and Qiu 2008; Costello and Wittenberg-Moerman 2011; Hertzel and Officer 2012; Chan, Chen, and Chen 2013). Specifically, we control for firm size, Tobin's Q, book leverage, profitability, tangibility, cash flow volatility, and the modified Altman's (1968) Z-score (without leverage). Larger firms have easier access to external financing and less information asymmetry; firms with a higher Tobin's Q have more growth opportunities; higher leverage, lower profitability, and lower tangibility are usually associated with a higher default risk; higher cash flow volatility proxies for a higher earnings risk; and Altman's Z-score further controls for default risk. We also control for loan characteristics, including loan maturity, loan size, and a performance pricing indicator variable. Longer maturity is likely associated with borrowers who have better credit quality; larger loan size generates economies of scale; and performance-priced loans may be structured differently. We employ two variables to control for macroeconomic conditions: credit spread and term spread. The former is the difference in yields between BAA and AAA corporate bonds, and the latter is the difference in yields between ten-year and two-year Treasury bonds. The data for both variables is obtained from the Board of Governors of the Federal Reserve System. Both variables are measured in the month prior to the issuance of a loan. To minimize the effect of outliers, we winsorize all continuous variables at the 1st and 99th

[13] The data are provided by Bill McDonald and available on his website: http://www3.nd.edu/~mcdonald/10-K_Headers/10-K_Headers.html

percentiles. All dollar values are in 2012 dollars. Detailed variable definitions are provided in the Appendix.

Table 2 provides the summary statistics. The median loan in our sample has a loan spread of 175 basis points over the LIBOR, a maturity of 47 months, and a loan size of $150 million. About two-fifth of our sample loans have performance pricing clauses. The median firm in our sample has a book value of total assets of $1.18 billion, is moderately levered with a book leverage ratio of 32.73 %, and has 23.19% of total assets in the form of tangible assets. In terms of performance, the median firm in our sample has a Tobin's Q of 1.33, a ratio of operating income before depreciation to total assets of 11.40%, and a Z-score of 1.37. In terms of measures of macroeconomic conditions, the median credit spread is 85 basis points and the median term spread is 79 basis points.[14]

[Insert Table 2 about here]

V. Main Results

A. The Timing of Adopting Constituency Statutes

Our empirical tests are based on the assumption that a state's adoption of constituency statutes is not related to the prevailing borrowing cost of firms incorporated in that state. To

[14] In Table IA1 in the Internet Appendix, we compare firm and loan characteristics between states that have and have not adopted constituency statutes. We find that loans issued by firms incorporated in legislating states have lower loan spreads than their counterparts in non-legislating states. Firms incorporated in legislating states have lower Tobin's Q, lower book leverage, lower tangibility, lower cash flow volatility, and shorter loan maturity, whereas they do have a higher Z-score, are more likely to have performance pricing, and have higher credit spread and term spread.

validate this assumption, following Acharya, Baghai, and Subramanian (2014), we employ a Weibull hazard model where the "failure event" is the adoption of constituency statutes in a state. The sample comprises all U.S. states over our sample period, with treated states dropped from the sample once they have adopted constituency statutes. All explanatory variables are at the state level and lagged by one year. *ln(AVERAGE_SPREAD)* is the natural logarithm of the average all-in spread drawn of loans issued by firms incorporated in a state. We also control for a number of state-level variables, including state GDP, population, unemployment rate, education level in the workforce, political climate (whether or not a state is governed by a Republican), and state antitakeover laws (i.e., business combination laws, control share acquisition laws, and fair price laws). Table 3 presents the results.

We show that the coefficients on *ln(AVERAGE_SPREAD)* are not significant across all three specifications. Taking column (3) as an example, the coefficient on *ln(AVERAGE_SPREAD)* is small in magnitude (−0.626) and is statistically insignificant. These results indicate that a state's adoption of constituency statutes is not related to the prevailing borrowing cost of its locally incorporated firms, supporting our assumption that the adoption of constituency statutes is likely to be exogenous to local firms' cost of debt prior to the law change.

[Insert Table 3 about here]

B. Baseline Regressions and Subsample Analyses

Thirty states adopted constituency statutes in different years during the sample period 1987–2012. Thus, we can examine the before-after effect of the adoption of constituency statutes in affected states (the treatment group) compared to the before-after effect in states without the

adoption of such statutes (the control group). Doing so requires a difference-in-differences test design with multiple treatment groups and multiple time periods as employed by Bertrand and Mullainathan (2003), Imbens and Wooldridge (2009), and Atanassov (2013). We implement this test through the following regression specification:

$$(1)\quad Ln(Loan\ Spread)_{i,t} = \alpha + \beta_1 Constituency\ Statute_{s,t} + \beta_2 Firm\ Characteristics_{i,t} + \beta_3 Loan\ Characteristics_{i,t} + \beta_4 Macro\ Factors_{i,t} + \beta_5 State\ Antitakeover\ Law\ Indicators_{s,t} + Credit\ Lyonnais\ FE + Loan\ Type\ FE + Loan\ Purpose\ FE + Firm\ FE + Year\ FE + \varepsilon_{i,t},$$

where *i* indexes firm, *s* indexes the state in which firm *i* is incorporated, and *t* indexes the year. The dependent variable is the natural logarithm of the loan spread. The variable *CONSTITUENCY_STATUTE* is an indicator variable that takes the value of one if constituency statutes are in effect in state *s* in a given year, and zero otherwise. As explained by Bertrand and Mullainathan (2003), the staggered adoption of constituency statutes means that our control group is not restricted to states that never adopt such statutes. In fact, Equation (1) can be estimated even if all states did eventually adopt such statutes. The estimation implicitly takes as the control group all firms incorporated in states that did not adopt such statutes in year *t*, even if some of those states already adopted such statutes before year *t* or if some of those states will adopt them after year *t*.

We include a set of control variables that may affect the cost of bank loans, as discussed in Section IV. We also control for a number of fixed effects. Francis et al. (2010) find that state antitakeover laws help shield bondholders from expropriation in takeovers, resulting in lower bond yields. Thus, we control for the adoption of major state antitakeover laws, *BUSINESS_COMBINATION_LAW*, which takes the value of one if a firm's state of incorporation adopted business combination laws, and zero otherwise. The indicators, *CONTROL_SHARE_ACQUISITION_LAW* and *FAIR_PRICE_LAW*, are defined similarly.

Becker and Strömberg (2012) find that after the 1991 ruling of the Credit Lyonnais case, shareholder-debtholder conflicts for Delaware-incorporated firms became significantly less severe, so we include the Credit Lyonnais fixed effect (which takes the value of one for the Delaware-incorporated firms after 1991, and zero otherwise) to capture its influence on the cost of debt. We also control for loan type fixed effects and loan purpose fixed effects. Loans are of different types, such as a term loan, revolver, or 364-day facility. Loan purposes generally include corporate uses, debt repayment, working capital, takeover, and other. The firm fixed effects allow us to control for time-invariant differences in a firm's cost of debt, and the year fixed effects allow us to control for time-varying business and economic conditions. Given that our treatment is defined at the state of incorporation level, we cluster standard errors by the state of incorporation.

The coefficient of interest in Equation (1) is β_1. As explained by Imbens and Wooldridge (2009), after controlling for all fixed effects, β_1 is the estimate of *within-firm* difference between the periods before and after the adoption of constituency statutes relative to a similar before-after difference in states without such statutes.

It is helpful to consider an example. Suppose we want to estimate the effect of constituency statutes adopted by Texas in 2006 on the cost of bank loans for firms incorporated in Texas. We can subtract the cost of bank loans before the adoption from the cost of bank loans after the adoption for firms incorporated in Texas. However, economy-wide shocks may occur at the same time and affect the cost of bank loans in 2006. To difference away such influences, we calculate the same difference in the cost of bank loans for firms incorporated in a control state that did not have constituency statutes. Finally, we calculate the difference between these two

differences, which represents the incremental effect of adopting constituency statutes on firms incorporated in Texas compared to firms incorporated in the control state without such statutes.

Table 4 presents the regression results. In column (1), we only include *CONSTITUENCY_STATUTE*, *Credit Lyonnais FE*, *Loan type FE*, *Loan purpose FE*, *Firm FE*, and *Year FE* as the independent variables, and the coefficient on *CONSTITUENCY_STATUTE* is negative and significant at the 1% level, suggesting a negative effect of constituency statutes on a firm's cost of debt.

[Insert Table 4 about here]

In column (2), we additionally control for firm characteristics, loan characteristics, macro factors, state antitakeover laws, and the full set of fixed effects as in column (1). The coefficient on *CONSTITUENCY_STATUTE* is −0.152 and significant at the 5% level. Given that the sample average loan spread is 192 basis points over the LIBOR, the adoption of state-level constituency statutes leads to a drop in the loan spread by 32 basis points $(= 192 \times (e^{0.152} - 1))$. With the sample average loan size of $386 million, this 32 basis-point difference corresponds to an annual savings in interest payments of $1.2 (= 386 × 0.32%) million. The economic significance of our finding is comparable to that in Francis et al. (2010), Valta (2012), and Chan, Chen, and Chen (2013).

In columns (3)-(6), we repeat the baseline regression in column (2) using four different subsamples. First, even before the wave of adoption of constituency statutes starting in the mid-1980s, managers in Delaware may have taken into account the interests of other constituencies – if only to the extent that they provided benefit to shareholders (Barzuza 2009). The 1991 ruling of the Credit Lyonnais case changed corporate directors' fiduciary duties in Delaware firms, limiting their incentives to take actions that would favor equity over debt for distressed firms

(Becker and Strömberg 2012). Two subsequent Delaware cases, Production Resources (2004) and Gheewalla (2007), represented a partial reversal of Credit Lyonnais. Given that more than half of our sample firms are incorporated in Delaware, we exclude loans issued by Delaware-incorporated firms and re-estimate the baseline regression in Equation (1) to ensure that Delaware-incorporated firms are not driving our main finding. Column (3) presents the results. After removing loans issued by Delaware firms, we are left with 13,574 loans, or about 37% of the initial sample. We show that the coefficient on *CONSTITUENCY_STATUTE* is negative and significant at the 1% level, and the magnitude of the coefficient (−0.190) is slightly larger than that in the baseline regression reported in column (2). This result indicates that our main finding is unlikely to be affected by Delaware firms.

Second, as shown in Table 1, a number of states adopted constituency statutes before 1987 (the first year of our sample period). As a robustness check, we exclude those states from our sample and re-estimate the baseline specification in Equation (1). Column (4) presents the results. After removing loans issued by firms in states that adopted constituency statutes before 1987, we are left with 34,684 loans, or about 95% of the initial sample. The coefficient on *CONSTITUENCY_STATUTE* is −0.147 and significant at the 10% level, indicating that our results are not sensitive to whether or not those states are kept in the sample.

Third, in response to a state's adoption of constituency statutes, firms may choose to change their states of incorporation or incorporate in that state (Karpoff and Wittry 2018). For example, a stakeholder-friendly board may choose to re-incorporate into or incorporate in the state that adopted such statutes, while a shareholder-friendly board may choose to re-incorporate or incorporate elsewhere. This possibility is unlikely to affect our results because we examine the within-firm difference in the cost of debt between the periods before and after the adoption of

constituency statutes, rather than the cross-sectional difference between firms in states with and without such statutes. Nonetheless, we exclude loans issued by firms that changed their states of incorporation during the sample period and firms that were newly incorporated after constituency statutes were adopted, and re-estimate the baseline specification in Equation (1). Column (5) presents the results. After removing these loans, we are left with 31,988 loans, or about 88% of the initial sample. The coefficient on *CONSTITUENCY_STATUTE* is −0.158 and significant at the 5% level, indicating that our results are not sensitive to whether or not those re-incorporated firms or newly incorporated firms are kept in the sample.

Finally, to rule out the possibility that treatment states may be different from control states along some unobservable dimensions, we use a subsample of loans issued by firms incorporated only in eventually treated states and re-estimate the baseline specification in Equation (1). Column (6) presents the results. After limiting our subsample to loans issued by firms incorporated in eventually treated states, we are left with 11,711 loans, or about 32% of the initial sample. The coefficient on *CONSTITUENCY_STATUTE* is −0.194 and significant at the 1% level, indicating that our results are not sensitive to whether or not control states are kept in the sample.

In terms of control variables, we show that larger firms and firms with greater growth potential, lower leverage, higher profitability, more tangible assets, and higher Z-scores have lower loan spreads. We also find that loans with longer maturity, larger size, and a performance pricing clause have lower spreads. In terms of macroeconomic conditions, both the credit spread and the term spread are positively associated with the spread of bank loans. These results are broadly consistent with prior literature (e.g., Graham, Li, and Qiu 2008; Hertzel and Officer 2012). The coefficients on state antitakeover law indicators are largely insignificant, possibly

because our sample period starts in 1987 while most of those laws were adopted before 1987, and/or because the hostile takeover wave largely ended in the late 1980s (Comment and Schwert 1995). This result suggests that constituency statutes are different from those other state antitakeover laws.

Overall, the results in Table 4 show that the adoption of constituency statutes leads to a lower cost of debt; this finding is not driven by Delaware-incorporated firms, and is robust to our removing states that adopted constituency statutes before the sample period, removing firms that re-incorporated or were newly incorporated during the sample period, or limiting our sample to firms incorporated in eventually treated states.

C. The Pre-treatment Trends

The validity of difference-in-differences tests depends on the parallel trends assumption: Absent constituency statutes, treated firms' cost of debt would have evolved in the same way as those of control firms. To compare the pre-treatment trend between the treated group and the control group, we re-estimate the baseline specification in Equation (1) by replacing the indicator *CONSTITUENCY_STATUTE* with five new indicator variables: $CONSTITUENCY\_STATUTE^{-2}$, $CONSTITUENCY\_STATUTE^{-1}$, $CONSTITUENCY\_STATUTE^{0}$, $CONSTITUENCY\_STATUTE^{1}$, and $CONSTITUENCY\_STATUTE^{2+}$. These variables indicate years relative to the year of adoption. For example, $CONSTITUENCY\_STATUTE^{-2}$ indicates two years before the adoption, while $CONSTITUENCY\_STATUTE^{2+}$ indicates two or more years after the adoption. Other indicator variables are defined similarly. The coefficients on $CONSTITUENCY\_STATUTE^{-2}$ and $CONSTITUENCY\_STATUTE^{-1}$ are especially important because their significance and magnitude

indicate whether there is any difference in the cost of debt between the treatment group and the control group prior to the adoption of constituency statutes. Table 5 presents the results.

[Insert Table 5 about here]

We find that the treated group and the control group share a similar trend in the cost of debt prior to the adoption of constituency statutes, thus supporting the parallel trends assumption necessary for the difference-in-differences test. Moreover, the absence of significant lead effects indicates that the adoption of constituency statutes is unlikely to be anticipated by the treated firms. Importantly, the effect of constituency statutes on the cost of debt occurs *after* the adoption of such statutes, suggesting a causal effect.

D. Constituency Statutes and Non-Price Loan Terms

Covenants and collateral requirement are important in loan contracts to protect lenders' rights. Riskier loans and riskier borrowers are more often associated with stringent covenants and collateral requirement (Graham, Li, and Qiu 2008; Chan, Chen, and Chen 2013). To the extent that constituency statutes provide creditors with stronger protection and thus make the use of covenants and collateral less necessary, we expect a negative association between the law change and the use of covenants and collateral.

In Table 6, we employ Probit regressions to examine the effect of constituency statutes on the use of covenants and collateral. Following Chava, Livdan, and Purnanandam (2009), we focus on equity issuance sweep, debt issuance sweep, and asset sales sweep, which are available for about a quarter of the sample with non-missing values. Due to a significant drop in sample size, we do not control for firm fixed effects in these regressions; instead, we use the state of

incorporation fixed effects to capture difference-in-differences estimates.[15] We show that the coefficients on *CONSTITUENCY_STATUTE* are negative and significant at or below the 10% level in all columns.

[Insert Table 6 about here]

Overall, Table 6 shows that the adoption of constituency statutes significantly reduces the usage of covenants or collateral in loan contracts. In other words, in addition to reducing the cost of bank loans, constituency statutes lead to looser non-price loan terms.

VI. Channel Tests

In this section, we provide evidence in support of the four channels through which the treatment effect takes place.

A. Cross-Sectional Variation in the Treatment Effect

First, if constituency statutes lower the cost of debt by mitigating conflicts of interest between fixed and residual claimants, we would expect the treatment effect to be stronger for firms close to financial distress, where *ceteris paribus*, conflicts of interest among various claimants, are particularly severe. To explore this prediction, we define the indicator variable, *INDUSTRY_DOWNTURN*, which takes the value of one if the annual industry (based on the

[15] In untabulated analysis, we employ a linear probability model with firm fixed effects, and the coefficients on *CONSTITUENCY_STATUTE* become insignificant. This result is largely due to the fact that the data for covenants is only available for about a quarter of the sample, leading to limited within-firm temporal variation for sample firms with non-missing information on covenants.

two-digit SIC code) stock return is in the bottom decile of the sample, and zero otherwise.[16] We re-estimate column (2) of Table 4 by adding the interaction term *CONSTITUENCY_STATUTE* × *INDUSTRY_DOWNTURN* and the indicator *INDUSTRY_DOWNTURN*. Column (1) of Panel A, Table 7 presents the results. The coefficient on *CONSTITUENCY_STATUTE* × *INDUSTRY_DOWNTURN* is negative and significant at the 1% level, indicating that the effect of constituency statutes on reducing the cost of debt is more pronounced when firms are close to financial distress.

Second, if constituency statutes lower the cost of debt by mitigating conflicts of interest between liquid and illiquid claimants, we would expect the treatment effect to be stronger for firms with more short-term shareholders. To explore this prediction, we classify institutions based on their respective investment horizons using data from Bushee (1998), who shows that transient institutional investors are more short-term oriented than other institutional investors.[17] The indicator variable *HIGH_TRANSIENT_INSTITUTIONAL_OWNERSHIP* takes the value of one if a firm's ownership by transient institutional investors scaled by the ownership of transient, quasi-indexer and dedicated investors altogether is in the top decile of the sample, and zero otherwise. We re-estimate column (2) of Table 4 by adding the interaction term *CONSTITUENCY_STATUTE* × *HIGH_TRANSIENT_INSTITUTIONAL_OWNERSHIP* and the indicator *HIGH_TRANSIENT_INSTITUTIONAL_OWNERSHIP*. Column (2) of Panel A, Table 7 presents the results. The coefficient on *CONSTITUENCY_STATUTE* ×

[16] Following Opler and Titman (1994) and Acharya, Bharath, and Srinivasan (2007), we use the median annual stock return of firms in an industry to measure the annual industry stock return.

[17] The classification of transient institutional investors is obtained from Bushee's website at: http://acct.wharton.upenn.edu/faculty/bushee/IIclass.html.

HIGH_TRANSIENT_INSTITUTIONAL_OWNERSHIP is negative and significant at the 5% level, indicating that the effect of constituency statutes on reducing the cost of debt is more pronounced when firms have high transient institutional ownership.

Third, if constituency statutes lower the cost of debt by limiting legal liability, we would expect the treatment effect to be stronger for firms having a higher litigation risk. To explore this prediction, we estimate a firm's ex ante litigation risk based on Model (2) in Kim and Skinner (2012). We define the indicator variable, *HIGH_LITIGATION_RISK*, which takes the value of one if a firm's ex ante litigation risk is in the top decile of the sample, and zero otherwise. We re-estimate column (2) of Table 4 by adding the interaction term *CONSTITUENCY_STATUTE* × *HIGH_LITIGATION_RISK* and the indicator *HIGH_LITIGATION_RISK*. Column (3) of Panel A, Table 7 presents the results. The coefficient on *CONSTITUENCY_STATUTE* × *HIGH_LITIGATION_RISK* is negative and significant at the 1% level, indicating that the effect of constituency statutes on reducing the cost of debt is more pronounced when firms face a higher ex ante litigation risk.

Fourth and finally, if constituency statutes lower the cost of debt by reducing firms' likelihood of being acquired, we would expect the treatment effect to be stronger for firms facing greater takeover threats. To explore this prediction, following Harford (2005), we define the indicator variable, *HIGH_TAKEOVER_RISK*, which takes the value of one if the number of acquisitions normalized by the number of firms in an industry is in the top decile of the sample, and zero otherwise. We re-estimate column (2) of Table 4 by adding the interaction term *CONSTITUENCY_STATUTE* × *HIGH_TAKEOVER_RISK* and the indicator *HIGH_TAKEOVER_RISK*. Column (4) of Panel A, Table 7 presents the results. The coefficient on *CONSTITUENCY_STATUTE* × *HIGH_TAKEOVER_RISK* is negative and significant at the

1% level, indicating that the effect of constituency statutes on reducing the cost of debt is more pronounced when firms face greater takeover threats.

In summary, the cross-sectional variations in the treatment effect shown in Panel A of Table 7 support our conjecture that constituency statutes reduce the cost of debt though (1) mitigating conflicts of interest between residual and fixed claimants, (2) mitigating conflicts of interest between holders of liquid claims and holders of illiquid claims, (3) reducing legal risk, and (4) lowering takeover threats.

[Insert Table 7 about here]

B. Debt Overhang

As discussed in our hypothesis development in Section III, if constituency statutes help mitigate conflicts of interest between residual and fixed claimants, we would expect such statutes to help reduce debt overhang and, in response, firms incorporated in those adopting states would increase investment.

To explore this prediction, we employ a subsample of firms whose annual industry-level stock return is below the sample median (i.e., firms close to financial distress), given that debt overhang is more likely to occur for this group of firms. The investment variables are R&D expenses, patent and citation counts (with a three-year lead, following Atanassov (2013)), and capital expenditures. Data on patent and citation counts are from the United States Patent and Trademark Office (USPTO) Patentsview database. Panel B of Table 7 presents the results. We show that the coefficients on *CONSTITUENCY_STATUTE* are positive and significant at or below the 10% level for three out of four investment outcomes, suggesting that when firms are

close to financial distress, constituency statutes help mitigate debt overhang, leading to more investment.

In summary, Panel B of Table 7 provides supporting evidence that constituency statutes help mitigate the debt overhang problem.

C. Risk-taking and Default Risk

If constituency statutes help mitigate conflicts of interest between residual and fixed claimants, we would expect such statutes to also help reduce risk-shifting incentives and thereby reduce the cost of debt.

To provide some evidence for this view, we re-estimate Equation (1) by using asset volatility (Merton 1974; Vassalou and Xing 2004)—a commonly used proxy for firm risk-taking—and the expected default probability as the dependent variables and removing all loan-level control variables and macro factor variables. Columns (1) and (2) of Panel C, Table 7 present the results. In column (1), the coefficient on *CONSTITUENCY_STATUTE* is –0.025 and significant at the 10% level and in column (2), the coefficient on *CONSTITUENCY_STATUTE* is –0.014 and significant at the 5% level, indicating that a state's adoption of constituency statutes leads to a significant drop in its firms' risk-taking and expected default probabilities.

Another commonly used proxy for default risk is credit rating, which also contains information about a firm's relation with its stakeholders (Attig, Ghoul, Guedhami, and Suh 2013). We use the long-term issuer credit ratings complied by S&P available in Compustat, and re-estimate Equation (1) with *RATING_SCORE* as the dependent variable, removing all loan-level control variables and macro factor variables. Column (3) of Panel C, Table 7 presents the results. We show that the coefficient on *CONSTITUENCY_STATUTE* is –0.250 and significant

at the 5% level, indicating that a state's adoption of constituency statutes leads to a significant improvement in its firms' credit ratings.

In summary, Panel C of Table 7 shows that the adoption of constituency statues leads to a drop in a firm's asset volatility and expected default probability, and an improvement in its credit rating, consistent with the view that constituency statutes mitigate conflicts of interest between residual and fixed claimants (as firms engage in fewer risk-taking activities).

D. Earnings Management

As discussed in our hypothesis development in Section III, if constituency statutes help mitigate conflicts of interest between liquid and illiquid claimants, we would expect such statutes to also help reduce corporate myopic behavior.[18]

One form of corporate myopic behavior is real earnings and accruals management (Bushee 1998, 2001; Bhojraj et al. 2009), in which managers are willing to sacrifice economic value to meet short-run earnings objectives, thus benefiting those who can easily unwind their affiliation with a firm. We examine whether the adoption of constituency statutes helps reduce real earnings management (*REM*, Dechow, Kothari, and Watts 1998; Cohen, Dey, and Lys 2008), signed discretionary accruals (*SDA*, Jones 1991), and small increases in earnings (*SI*, Frankel, Johnson, and Nelson 2002). Panel D of Table 7 presents the results. We show that across all columns, the coefficients on *CONSTITUENCY_STATUTE* are negative and significant

[18] Relatedly, Flammer and Kacperczyk (2016) use the same setting and find the enactment of constituency statutes leads to an increase in firms' innovative activities and long-term performance, consistent with the view that constituency statutes help mitigate conflicts of interest between liquid and illiquid claimants.

at the 5% level, suggesting that a state's adoption of constituency statutes leads to a drop in its firms' real earnings and accruals management.

In summary, Panel D of Table 7 provides supporting evidence that constituency statutes mitigate conflicts of interest between liquid and illiquid claimants by limiting earnings management.

E. Legal Risk

The adoption of constituency statutes is likely to reduce a firm's legal risk as discussed in our hypothesis development Section III. Given that litigation causes disruption to firms' operations and increases firm risk and their cost of capital (Sharfman and Fernando 2008), we hypothesize that another channel for constituency statutes to reduce the cost of debt is through lowering legal risk.

To explore this channel, we follow Bennett, Milbourn and Wang (2018) and measure litigation risk using the number of litigious words with a negative connotation in a firm's annual reports. Firms' electronic filing started in 1994 and became mandatory in 1996. For this reason, we examine the periods 1994−2012 and 1996−2012 separately. Panel E of Table 7 presents the results. We show that the coefficients on *CONSTITUENCY_STATUTE* are negative and significant at the 1% level, suggesting that constituency statutes significantly reduce firms' legal risk.

Overall, Panel E of Table 7 supports the notion that another possible channel for constituency statutes to reduce the cost of debt is through limiting legal liability.

F. Can Takeover Deterrence Fully Explain Our Results?

As discussed in Section II, constituency statutes were introduced initially as an antitakeover defense; Karpoff, Schonlau, and Wehrly (2019) show that constituency statutes lower a firm's likelihood of being acquired. Thus, it is important to examine whether the takeover channel can fully explain our main findings.

In Panel F of Table 7, we employ subsamples of firms that are less likely to be takeover targets—firms that are large, well performing, or incorporated in states that have already adopted other antitakeover laws, and re-estimate Equation (1). We continue to find negative and significant coefficients on *CONSTITUENCY_STATUTE*. Even among firms facing low takeover threats, the adoption of constituency statutes still leads to a reduction in the cost of debt, suggesting that the takeover channel by itself is unable to fully explain our main findings.

Overall, Table 7 provides supporting evidence that constituency statutes reduce the cost of debt through the channels of: (1) mitigating conflicts of interest between residual and fixed claimants, (2) mitigating conflicts of interest between holders of liquid claims and holders of illiquid claims, (3) reducing legal risk, and (4) lowering takeover threats. Table 7 also shows that takeover deterrence, despite being a valid channel, cannot fully explain our main findings by itself.

VII. Information Asymmetry, Constituency Statutes, and CSR

Given the potential benefits of adopting a stakeholder-oriented approach to business decision-making, why do managers need a statute to give them permission to consider the interest of stakeholders, when doing so seemingly benefits everyone?

One possible explanation is that stakeholder orientation may benefit a firm in the long run, but not necessarily in the short run. As pointed out by Stein (1988), when shareholders have

perfect information about managerial decisions, any corporate policy not in the best long-run interests of a firm lowers its stock price. However, when there is information asymmetry between corporate insiders and outside shareholders, short-term market pressure may prevent firms from taking actions that may benefit them in the long run but will lower their current profits (such as making CSR investments).

Flammer and Kacperczyk (2016) and Flammer (2018) use KLD ratings to measure a firm's stakeholder-oriented provisions and show that the passage of constituency statutes indeed makes firms become more stakeholder oriented. If information asymmetry is truly the friction preventing firms from being stakeholder oriented, we expect that the positive effect of constituency statutes on KLD ratings will be stronger for firms with greater information asymmetry.

We test this prediction in Table 8. Following Flammer and Kacperczyk (2016), we use the Kinder, Lydenberg, and Domini (KLD) database (now the MSCI ESG STATS database). Our dependent variable, *CSR*, captures firms' social performance in the four dimensions most related to stakeholders: employees, customers, community, and corporate governance. The database starts in 1991, and thus our sample period for this analysis is 1991–2012.

Our variable of interest is the interaction term *CONSTITUENCY_STATUTEs* × *HIGH_INFORMATION_ASYMMETRY*, where the indicator variable, *HIGH_INFORMATION_ASYMMETRY*, takes the value of one for firms with greater information asymmetry, and zero otherwise. We use four proxies for information asymmetry, including industry-level R&D expenses, bid-ask spreads, firm size, and stock return volatility, following Aboody and Lev (2000) and Chae (2005). We show that the coefficients on *CONSTITUENCY_STATUTEs* × *HIGH_INFORMATION_ASYMMETRY* are positive and

significant across all four columns, suggesting that the positive effect of constituency statutes on CSR is stronger for firms with greater information asymmetry.

[Insert Table 8 about here]

In summary, Table 8 provides suggestive evidence that information asymmetry between corporate insiders and outsiders is likely the friction preventing firms from being stakeholder oriented (in the absence of constituency statutes).

VIII. Robustness Checks and Additional Investigation

A. Robustness Checks

In this section, we conduct a number of robustness checks and additional tests; the results are reported in the Internet Appendix.

First, in Table IA2 column (1), we re-estimate column (2) of Table 4 by additionally controlling for the number of sweeps and collateral requirement in the loan contract. The result indicates that our main findings are robust to controlling for covenants and collateral.

Second, in Table IA2 column (2), we re-estimate column (2) of Table 4 by additionally controlling for the state of incorporation-level variables used in Table 3. Our inference is unchanged.

Third, to increase confidence that our findings of a positive coefficient on CONSTITUENCY_STATUTE are not attributable to unobserved sources of heterogeneity relating to a firm's industry, location, or year of observation, we re-estimate column (2) of Table 4 by including industry-year and headquarters' state-year fixed effects as advocated by Gormley and Matsa (2014, 2016) and used in Karpoff and Wittry (2018). Table IA2 column (3) shows that our main findings remain.

Fourth, in Table IA2 column (4), we use a matched sample approach to control for any shocks to firms' local business conditions. Specifically, we match each treated firm to a control firm that is (1) headquartered in the same state but incorporated in a different state that never adopted constituency statutes, (2) in the same industry based on the two-digit SIC code, and (3) closest in total assets in the year of loan issuance. We require both the treated firm and its control firm issue at least one loan both before and after the treatment. Given that both treated and control firms are headquartered in the same state (but incorporated in different states), we can difference away any shocks to local business conditions. Using this matched sample (3,560 loan-year observations), we re-estimate column (2) of Table 4, and show that our main findings remain, suggesting that they are unlikely to have been driven by any shocks to local business conditions (that could be correlated with the adoption of constituency statutes).

Fifth, as a robustness check on our main findings, in Table IA 2 column (5) we use the bond yield at-issue as a measure of the cost of debt, and show that the adoption of constituency statutes leads to a significant decrease in firms' bond yields.

Finally, to ensure that our main results are not purely driven by chance, we conduct a placebo test to check whether our results disappear when we randomly pick an adoption year other than the actual year. Specifically, for each state that adopted constituency statutes, we assign a pseudo adoption year chosen randomly from the sample period 1987–2012. We further require the pseudo event year to be either at least five years before or five years after the actual event year, so that the pseudo event year is not confounded with the actual year. We then re-estimate the baseline regression in Equation (1) based on those pseudo event years and save the coefficient on *CONSTITUENCY_STATUTE*. We repeat this procedure 5,000 times.

Figure IA1 plots the empirical distribution of the coefficient estimates based on those pseudo events. The figure clearly shows that the coefficient estimate from column (2) of Table 4 lies well to the left of the entire distribution of coefficient estimates from the placebo test. The coefficient estimate from Table 4 (−0.152) is approximately five standard deviations (0.030) below the mean (0.011) of the distribution and is much smaller than the minimum coefficient estimate (−0.091) from the placebo test. These results suggest that the adoption of constituency statutes leads to our main findings.

B. Addressing Unequal Cluster Sizes When Using State Corporate Laws

Spamann (2019) shows that there could be an over-rejection problem in studies using state corporate laws for identification and clustering standard errors by state of incorporation, especially when one cluster contains half the sample firms like Delaware (i.e., unequal cluster size). Spamann (2019) recommends a permutation test, which is essentially the RI-*t* test in MacKinnon and Webb (2019), as a potential fix to the over-rejection problem. As a robustness check, Table IA3 of the Internet Appendix reports the *p*-values from the RI-β and RI-*t* procedures (MacKinnon and Webb 2019) for our main analysis in Table 4.[19] We show that our inference remains unchanged.

[19] MacKinnon and Webb (2019) propose two procedures, namely the coefficient-based randomization inference (RI-β) procedure and the cluster-robust *t*-statistic randomization inference (RI-*t*) procedure. The basic idea of the RI-β (RI-*t*) procedure is to compare the coefficient of interest (cluster-robust *t*-statistic) to an estimate of the distribution of the parameter based on re-randomized samples. The permutation *p*-value is then calculated as the proportion of the re-randomizations for which the coefficient estimate (*t*-statistic) is more extreme in absolute value than that from the regression of interest.

C. Addressing Reusing Natural Experiments

Heath, Ringgenberg, Samadi, and Werner (2019) show that repeated use of a natural experiment may increase the likelihood of false discoveries, and they use the business combination law and Regulation SHO for illustration; both together have been exploited by more than 120 academic papers. Compared to those two laws, constituency statutes are much under-studied. To the best of our knowledge, there are only eight papers (in addition to ours) that examine the effect of constituency statutes in a difference-in-differences setting.[20] Even within those seven papers, some are based on a sample of banks (Leung, Song, and Chen 2019) or financial institutions (Geczy et al. 2015), and do not employ the same sample as ours. Heath et al. (2019, Table 1) show that when a natural experiment is reused for fewer than ten times (as in our application), the possibility of false discoveries is negligible.

IX. Conclusions

In this paper, we establish a causal effect of stakeholder orientation on firms' cost of debt financing by exploiting the staggered adoption of constituency statutes in different U.S. states. Constituency statutes allow corporate directors to consider stakeholders' interests when making business decisions, rather than merely serving shareholders' interests. We hypothesize that the adoption of constituency statutes will lead to a lower cost of debt through the channels of (1) mitigating conflicts of interest between residual and fixed claimants, (2) mitigating conflicts of

[20] The eight papers are Geczy et al. (2015), Flammer and Kacperczyk (2016), Flammer (2018), Radhakrishnan, Wang, and Wang (2018), Cremers, Guernsey, and Sepe (2019), Flammer, Hong, and Minor (2019), Leung, Song, and Chen (2019), and Nguyen, Kecskés, and Mansi (2020).

interest between holders of liquid claims and holders of illiquid claims, (3) limiting legal liability, and (4) lowering takeover threats.

Consistent with our conjecture, we find a significant drop in the bank loan spread for firms incorporated in states that adopted constituency statutes, relative to firms incorporated in states without such statutes. In support of a causal interpretation of our findings, our timing tests indicate that a firm's cost of debt changes only after its state of incorporation has adopted constituency statutes. We also find the adoption of such statutes reduces the use of covenants and collateral. We further provide supporting evidence for the four channels: (1) The treatment effect is stronger when firms are close to financial distress, have a higher litigation risk, or are facing greater takeover threats, or when a larger portion of their ownership is held by short-term shareholders; and (2) the adoption of constituency statutes helps mitigate debt overhang and reduces a firm's risk of default, myopic behavior, and litigation risk. Overall, our findings suggest that constituency statutes have a causal effect on lowering the cost of debt.

Focusing on the business combination law, Karpoff and Wittry (2018) show that the institutional, political economy, and historical context in which a law is enacted has a large effect on tests using legal changes for identification. Although we have conducted various robustness checks, our identification scheme may still suffer from the critique raised by Karpoff and Wittry (2018). Readers should be aware of this possible limitation when deciding how our findings might be generalized.

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Appendix. Variable Definitions

Variable	Definition
AVERAGE_SPREAD	The average all-in spread drawn of loans issued by firms incorporated in a state.
ASSET_SALES_SWEEP	An indicator variable that takes the value of one if the loan includes an asset sales sweep, and zero otherwise.
ASSET_VOLATILITY	The volatility of assets using Merton's (1974) model.
BUSINESS_COMBINATION_LAW	An indicator variable that takes the value of one if business combination laws are adopted in a firm's state of incorporation, and zero otherwise.
BOND_MATURITY	Bond maturity in months.
BOND_SIZE	Bond amount in millions of dollars.
BOND_YIELD_SPREAD	The difference between the at-issue yield spread of a bond and a U.S. Treasury bond with comparable maturity, measured in basis points.
BOOK_LEVERAGE	Book value of long-term debt and debt in current liabilities scaled by book value of total assets.
CASH_FLOW_VOLATILITY	The standard deviation of quarterly operating cash flows over four fiscal years prior to the year of loan issuance scaled by book value of total assets.
CAPEX	Capital expenditures scaled by book value of total assets.
COLLATERAL	An indicator variable that takes the value of one if a loan is secured by collateral, and zero otherwise.
CONTROL_SHARE_ACQUISITION_LAW	An indicator variable that takes the value of one if control share acquisition laws are adopted in a firm's state of incorporation, and zero otherwise.
CONSTITUENCY_STATUTE	An indicator variable that takes the value of one if constituency statutes are adopted in a firm's state of incorporation, and zero otherwise.
CREDIT_SPREAD	The difference between BAA and AAA corporate bond yields in the month prior to the issuance of a loan.
CSR	We scale the number of strengths (concerns) in each dimension by the total number of strengths (concerns) available in that dimension in that year as adjusted CSR strength (concern) score. We then use adjusted CSR strength score minus concern score to obtain adjusted CSR score in that dimension. CSR is the sum of adjusted CSR scores in four dimensions that are most related to stakeholders, namely employees, customers, community, and corporate governance.
DEBT_ISSUANCE SWEEP	An indicator variable that takes the value of one if the loan includes a debt issuance sweep, and zero otherwise.
EQUITY_ISSUANCE SWEEP	An indicator variable that takes the value of one if the loan includes an equity issuance sweep, and zero otherwise.
EXPECTED DEFAULT PROBABILITY	Calculated using Merton's (1974) model as implemented by Vassalou and Xing (2004) to measure how close a firm is to financial distress.
FAIR_PRICE_LAW	An indicator variable that takes the value of one if fair price laws are adopted in a firm's state of incorporation, and zero otherwise.
HIGH_LITIGATION_RISK	An indicator variable that takes the value of one if a firm's ex ante litigation risk is in the top decile of the sample, and zero otherwise. Kim and Skinner (2012) examine various models to predict a firm's likelihood of being a litigation target, and show that their model (2) has the greatest predictive power. Specifically, a firm's litigation risk is computed as 0.007 × FPS Industry indicator + 0.018 × ln(TOTAL_ASSETS) + 0.021 × Sales growth − 0.019 × Stock return − 0.014 × Stock return skewness + 0.55 × Stock return standard deviation + 0.00002 × Stock turnover.
HIGH_TAKEOVER_RISK	An indicator variable that takes the value of one if the number of acquisitions in a firm's industry (based on two-digit SIC code) normalized by the number of firms in that industry is in the top decile of the sample, and zero otherwise. We obtain data on mergers and acquisitions from the SDC database. We include an acquisition deal for an industry if either the acquirer or its target belongs to that industry, the acquirer owns 100% of its target after deal completion, and the deal value is at least $50 million in 2012 dollars.

HIGH_TRANSIENT_INSTITUTIONAL_OWNERSHIP	An indicator variable that takes the value of one if a firm's ownership by transient institutions scaled by its ownership by transient, quasi-indexer, and dedicated institutions altogether is in the top decile of the sample, and zero otherwise.
INDUSTRY_DOWNTURN	An indicator variable that takes the value of one if the annual return in an industry (based on two-digit SIC code, measured as the median annual stock return of all firms in that industry) is in the bottom decile of the sample, and zero otherwise.
#NEGATIVE_LITIGIOUS_WORDS	The number of litigious words with a negative connotation in a firm's annual reports. Litigious words with a negative connotation are obtained from Loughran and McDonald (2011).
LOAN_MATURITY	Loan maturity in months.
LOAN_SIZE	Loan amount in millions of dollars.
LOAN_SPREAD	The all-in spread drawn, provided by the Dealscan database, in terms of additional basis points that a borrower pays over the LIBOR.
PERFORMANCE_PRICING	An indicator variable that takes the value of one if a loan uses performance pricing, and zero otherwise.
PROFITABILITY	Operating income before depreciation scaled by book value of total assets.
R&D	R&D expenses scaled by book value of total assets.
RATING_SCORE	The credit rating score assigned following Dimitrov, Palia, and Tang (2015). The credit rating score ranges from 1 (the highest grade, AAA) to 21 (the lowest grade, C).
REM	Real earnings management, calculated as the sum of standardized abnormal R&D expenses, abnormal production costs, and abnormal cash from operations following Dechow, Kothari, and Watts (1998) and Cohen, Dey, and Lys (2008).
REPUBLICAN_GOVERNOR	An indicator variable that takes the value of one if a state's governor is a Republican, and zero otherwise. Data is from the National Governors Association.
SDA	Signed discretionary accruals, estimated using the modified Jones (1991) model.
SI	An indicator variable that takes the value of one if the change in net income divided by market value of equity falls in the interval of [0, 0.02], and zero otherwise, following Frankel, Johnson, and Nelson (2002).
STATE_GDP	Total GDP in a state, from the Bureau of Economic Analysis.
STATE_POPULATION	Total population in a state, from the U.S. Census Bureau.
STATE_UNEMPLOYMENT_RATE	Unemployment rate in a state, from the U.S. Bureau of Labor Statistics Local Area Unemployment Statistics Series.
TANGIBILITY	Net property, plant, and equipment scaled by book value of total assets.
TOBIN'S_Q	Market value of equity plus book value of debt scaled by book value of total assets.
TOTAL_ASSETS	Book value of total assets.
TERM_SPREAD	Difference between ten-year and two-year Treasury yields in the month prior to the issuance of a loan.
Z-SCORE	Modified Altman's Z-SCORE = (1.2 × working capital + 1.4 × retained earnings + 3.3 × EBIT + 0.999 × sales) / total assets.
#CITATIONS	Number of citations received by patents applied for by a firm in a given year. Given that citations can be received many years after a patent is awarded, patents awarded near the end of the sample period have less time to accumulate citations. To address this truncation bias, we adjust for the duration of patent citations by technology classes, following Hall, Jaffe, and Trajtenberg (2005).
#PATENTS	Number of patents that are applied for (and subsequently awarded) by a firm in a given year.
#SWEEPS	Sum of three indicator variables: asset sales sweep, debt issuance sweep, and equity issuance sweep, provided by the Dealscan database.
%WORKFORCE_WITH_A_BACHELOR'S_DEGREE	Percentage of a state's workforce with a Bachelor's degree, from the U.S. Census Bureau.

TABLE 1

List of States That Have Adopted Constituency Statutes

This table lists the years when constituency statutes became effective in different U.S. states. The list is adapted from Karpoff and Wittry (2018, Table 2).

State	Year
Ohio	1984
Illinois	1985
Maine	1985
Indiana	1986
Missouri	1986
Arizona	1987
Minnesota	1987
New Mexico	1987
New York	1987
Wisconsin	1987
Connecticut	1988
Idaho	1988
Kentucky	1988
Louisiana	1988
Nebraska	1988, 2007
Tennessee	1988
Virginia	1988
Florida	1989
Georgia	1989
Hawaii	1989
Iowa	1989
Massachusetts	1989
New Jersey	1989
Oregon	1989
Mississippi	1990
Pennsylvania	1990
Rhode Island	1990
South Dakota	1990
Wyoming	1990
Nevada	1991
North Carolina	1993
North Dakota	1993
Vermont	1998
Maryland	1999
Texas	2006

TABLE 2

Summary Statistics

The sample consists of 36,519 loan observations over the period 1987−2012 covered by the Dealscan database with non-missing loan spreads. Firm characteristics are obtained from the Compustat database. All loans are issued by U.S. public firms traded on the NYSE, AMEX, or NASDAQ. Variable definitions are provided in the Appendix. All dollar values are in 2012 dollars. All continuous variables are winsorized at the 1st and 99th percentiles.

Variable Name	Mean	Std. Dev	25th Percentile	Median	75th Percentile
LOAN_SPREAD (bps over LIBOR)	191.66	128.25	87.50	175.00	275.00
CONSTITUENCY_STATUTE	0.27	0.45	0.00	0.00	1.00
TOTAL_ASSETS ($million)	8372.64	27438.08	321.51	1183.35	4501.65
TOBIN'S_Q	1.61	0.92	1.08	1.33	1.81
BOOK_LEVERAGE	34.84%	23.54%	17.70%	32.73%	48.19%
PROFITABILITY	11.50%	9.63%	6.69%	11.40%	16.42%
TANGIBILITY	29.69%	25.14%	8.69%	23.19%	46.49%
CASH_FLOW_VOLATILITY	2.12%	3.45%	0.52%	1.00%	2.04%
Z-SCORE	1.45	1.27	0.57	1.37	2.25
LOAN_MATURITY (months)	44.65	24.75	24.00	47.00	60.00
LOAN_SIZE ($million)	385.88	656.69	40.91	150.00	411.54
PERFORMANCE_PRICING	0.40	0.49	0.00	0.00	1.00
CREDIT_SPREAD (bps)	90.69	31.86	69.00	85.00	103.00
TERM_SPREAD (bps)	102.81	90.60	22.00	79.00	187.00
BUSINESS_COMBINATION_LAW	0.91	0.29	1.00	1.00	1.00
CONTROL_SHARE_ACQUISITION_LAW	0.25	0.43	0.00	0.00	0.00
FAIR_PRICE_LAW	0.29	0.46	0.00	0.00	1.00

TABLE3

The Timing of Adopting Constituency Statutes: The Duration Model

This table reports estimates from a Weibull hazard model where the "failure event" is the adoption of constituency statutes in a state. States are dropped from the sample once they adopt those statutes, which happens to 35 states before or during the period 1987−2012. All explanatory variables are at the state level and lagged by one year. Variable definitions are provided in the Appendix. Robust standard errors clustered at the state of incorporation level are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
ln(AVERAGE_SPREAD)	-0.576	-0.673	-0.626
	(0.408)	(0.536)	(0.538)
ln(STATE_GDP)		-13.823***	-12.366***
		(3.111)	(3.497)
ln(STATE_POPULATION)		15.064***	13.402***
		(3.422)	(3.863)
STATE_UNEMPLOYMENT_RATE		-0.374	-0.358
		(0.412)	(0.395)
%WORKFORCE_WITH_A_BACHELOR'S_DEGREE		0.386***	0.264*
		(0.149)	(0.147)
REPUBLICAN_GOVERNOR			-1.354
			(0.870)
BUSINESS_COMBINATION_LAW			-2.227*
			(1.257)
CONTROL_SHARE_ACQUISITION_LAW			0.540
			(1.092)
FAIR_PRICE_LAW			1.459*
			(0.835)
No. of obs.	352	352	352

TABLE4

Constituency Statutes and the Cost of Debt

This table reports difference-in-differences tests that examine the effect of constituency statutes on the cost of debt. The full sample consists of 36,519 loan observations over the period 1987−2012 covered by the Dealscan database with non-missing loan spreads: 9,965 loan observations with *CONSTITUENCY_STATUTE* = 1, and 26,554 loan observations with *CONSTITUENCY_STATUTE* = 0. The dependent variable is *ln(LOAN_SPREAD)*. In column (1), we use the full sample and include only the indicator *CONSTITUENCY_STATUTE* and fixed effects. In column (2), we add firm characteristics, loan characteristics, macro factors, and state antitakeover law indicators. In column (3), we exclude loans issued by firms incorporated in Delaware. In column (4), we exclude loans issued by firms incorporated in states that adopted constituency statutes before 1987 (the first year of the sample period). In column (5), we exclude loans issued by firms that changed their states of incorporation during the sample period 1987−2012 and firms that were newly incorporated after constituency statutes were adopted. In column (6), we include only loans issued by firms incorporated in eventually-treated states. Variable definitions are provided in the Appendix. Robust standard errors clustered at the state of incorporation level are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Full sample		Exclude Delaware-incorporated firms	Exclude firms in states that adopted constituency statutes before 1987	Exclude re-incorporations and new incorporations	Eventually-treated states
	(1)	(2)	(3)	(4)	(5)	(6)
CONSTITUENCY_STATUTE	-0.182***	-0.152**	-0.190***	-0.147*	-0.158**	-0.194***
	(0.067)	(0.073)	(0.060)	(0.076)	(0.075)	(0.062)
ln(TOTAL_ASSETS)		-0.161***	-0.192***	-0.157***	-0.158***	-0.184***
		(0.013)	(0.020)	(0.010)	(0.011)	(0.020)
TOBIN'S_Q		-0.052***	-0.042**	-0.053***	-0.058***	-0.043**
		(0.006)	(0.017)	(0.006)	(0.006)	(0.018)
BOOK_LEVERAGE		0.458***	0.440***	0.457***	0.466***	0.434***
		(0.032)	(0.105)	(0.033)	(0.036)	(0.117)
PROFITABILITY		-0.462***	-0.525***	-0.455***	-0.510***	-0.602***

		(0.058)	(0.174)	(0.053)	(0.062)	(0.195)
TANGIBILITY		-0.456***	-0.479***	-0.437***	-0.441***	-0.455***
		(0.051)	(0.138)	(0.050)	(0.059)	(0.160)
CASH_FLOW_VOLATILITY		0.218	0.591*	0.207	0.125	0.572*
		(0.147)	(0.322)	(0.147)	(0.083)	(0.329)
Z-SCORE		-0.077***	-0.069***	-0.074***	-0.072***	-0.071***
		(0.008)	(0.023)	(0.009)	(0.010)	(0.025)
ln(LOAN_MATURITY)		-0.050***	-0.046***	-0.051***	-0.052***	-0.051***
		(0.006)	(0.014)	(0.006)	(0.006)	(0.014)
ln(LOAN_SIZE)		-0.082***	-0.076***	-0.084***	-0.083***	-0.075***
		(0.005)	(0.012)	(0.004)	(0.004)	(0.013)
PERFORMANCE_PRICING		-0.052***	-0.016	-0.057***	-0.051***	-0.017
		(0.016)	(0.017)	(0.014)	(0.017)	(0.018)
CREDIT_SPREAD		0.102***	0.155***	0.099***	0.096***	0.153***
		(0.026)	(0.040)	(0.025)	(0.026)	(0.043)
TERM_SPREAD		0.056***	0.080***	0.052***	0.056***	0.075***
		(0.011)	(0.016)	(0.009)	(0.013)	(0.018)
BUSINESS_COMBINATION_LAW		0.081	0.144	0.089	0.061	0.112
		(0.052)	(0.102)	(0.057)	(0.086)	(0.117)
CONTROL_SHARE_ACQUISITION_LAW		0.088	0.159***	0.103	0.219***	0.161**
		(0.075)	(0.050)	(0.067)	(0.051)	(0.068)
FAIR_PRICE_LAW		-0.101**	-0.154	-0.115*	-0.104	-0.134
		(0.050)	(0.095)	(0.067)	(0.080)	(0.109)
CONSTANT	5.053***	6.565***	6.398***	6.559***	6.568***	6.364***
	(0.068)	(0.073)	(0.150)	(0.084)	(0.059)	(0.155)
No. of obs.	36,519	36,519	13,574	34,684	31,988	11,711
R^2	0.733	0.769	0.771	0.770	0.772	0.767
Credit Lyonnais FE	Yes	Yes	No	Yes	Yes	No
Loan type FE	Yes	Yes	Yes	Yes	Yes	Yes
Loan purpose FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
% of treated firms	6.27%	6.27%	13.21%	6.23%	5.83%	16.08%

TABLE5

Testing for Pre-treatment Trends

This table examines pre-treatment trends between the treated group and the control group. The regression specification is the same as that in column (2) of Table 4, except that we replace the indicator *CONSTITUENCY_STATUTE* with the indicators $CONSTITUENCY\_STATUTE^{-2}$, $CONSTITUENCY\_STATUTE^{-1}$, $CONSTITUENCY\_STATUTE^{0}$, $CONSTITUENCY\_STATUTE^{1}$, and $CONSTITUENCY\_STATUTE^{2+}$. These five indicators flag the years relative to the year that a state adopts constituency statutes. The dependent variable is *ln(LOAN_SPREAD)*. In column (1), we use the full sample. In column (2), we exclude loans issued by firms incorporated in Delaware. In column (3), we exclude loans issued by firms incorporated in states that adopted constituency statutes before 1987 (the first year of the sample period). In column (4), we exclude loans issued by firms that changed their states of incorporation during the sample period 1987−2012 and firms that were newly incorporated after constituency statutes were adopted. In column (5), we include only loans issued by firms incorporated in eventually-treated states. Variable definitions are provided in the Appendix. Robust standard errors clustered at the state of incorporation level are reported in parentheses. The superscript ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Full sample	Exclude Delaware-incorporated firms	Exclude firms in states that adopted constituency statutes before 1987	Exclude re-incorporations and new incorporations	Eventually-treated states
	(1)	(2)	(3)	(4)	(5)
$CONSTITUENCY\_STATUTE^{-2}$	-0.009	0.019	-0.015	-0.020	0.012
	(0.064)	(0.067)	(0.070)	(0.073)	(0.072)
$CONSTITUENCY\_STATUTE^{-1}$	-0.007	0.010	-0.012	-0.005	0.007
	(0.025)	(0.032)	(0.027)	(0.027)	(0.034)
$CONSTITUENCY\_STATUTE^{0}$	-0.088	-0.055	-0.092	-0.102	-0.061
	(0.081)	(0.075)	(0.084)	(0.092)	(0.075)
$CONSTITUENCY\_STATUTE^{1}$	-0.168***	-0.171***	-0.165***	-0.181***	-0.171***
	(0.053)	(0.049)	(0.058)	(0.058)	(0.049)
$CONSTITUENCY\_STATUTE^{2+}$	-0.179*	-0.205**	-0.178*	-0.192*	-0.216**
	(0.099)	(0.094)	(0.105)	(0.108)	(0.101)

Other controls	Same as column (2) of Table 4				
No. of obs.	36,519	13,574	34,684	31,988	11,711
R^2	0.769	0.771	0.770	0.772	0.767
Credit Lyonnais FE	Yes	No	Yes	Yes	No
Loan type FE	Yes	Yes	Yes	Yes	Yes
Loan purpose FE	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

TABLE 6

Constituency Statutes and Non-Price Terms

This table reports results of Probit regressions that examine the effect of constituency statutes on the use of covenants and collateral. Variable definitions are provided in the Appendix. Robust standard errors clustered at the state of incorporation level are reported in parentheses. The superscript ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	EQUITY_ISSUANCE SWEEP (1)	*DEBT_ISSUANCE SWEEP* (2)	*ASSET_SALES_ SWEEP* (3)	*COLLATERAL* (4)
CONSTITUENCY_STATUTE	-0.298***	-0.200*	-0.743***	-0.320*
	(0.108)	(0.111)	(0.146)	(0.191)
ln(TOTAL_ASSETS)	-0.089***	0.026	-0.065***	-0.296***
	(0.015)	(0.034)	(0.017)	(0.012)
TOBIN'S_Q	-0.023	-0.083***	-0.046**	-0.123***
	(0.025)	(0.019)	(0.019)	(0.017)
BOOK_LEVERAGE	0.789***	0.728***	1.333***	1.124***
	(0.077)	(0.076)	(0.195)	(0.059)
PROFITABILITY	-0.293**	0.258	0.634**	-0.950***
	(0.137)	(0.258)	(0.269)	(0.215)
TANGIBILITY	-0.390***	-0.330	-0.099	-0.403**
	(0.093)	(0.203)	(0.082)	(0.166)
CASH_FLOW_VOLATILITY	1.162***	1.419***	0.628	2.186***
	(0.336)	(0.518)	(0.471)	(0.418)
Z-SCORE	-0.042*	-0.063***	-0.181***	-0.179***
	(0.025)	(0.019)	(0.033)	(0.019)
ln(LOAN_MATURITY)	-0.063**	0.026	0.204***	0.083***
	(0.025)	(0.041)	(0.049)	(0.019)
ln(LOAN_SIZE)	-0.026	0.031	-0.027	-0.120***
	(0.024)	(0.038)	(0.029)	(0.015)
PERFORMANCE_PRICING	0.250***	0.143***	0.324***	-0.357***
	(0.031)	(0.031)	(0.033)	(0.035)
CREDIT_SPREAD	0.209	0.133	0.359	-0.071
	(0.154)	(0.205)	(0.324)	(0.056)
TERM_SPREAD	0.109	0.226***	0.096	-0.030
	(0.068)	(0.073)	(0.142)	(0.033)
BUSINESS_COMBINATION_LAW	4.431***	9.001***	3.639***	0.112
	(0.229)	(0.433)	(0.328)	(0.279)
CONTROL_SHARE_ACQUISITION_LAW	-4.084***	-9.443***	-3.833***	-0.112
	(0.247)	(0.501)	(0.259)	(0.231)
FAIR_PRICE_LAW	-1.494***	-0.464	1.003***	-0.562**
	(0.315)	(0.726)	(0.386)	(0.279)

CONSTANT	3.333***	2.072***	-0.585	7.646***
	(0.583)	(0.319)	(0.406)	(0.388)
No. of obs.	9,609	10,089	10,421	27,242
Loan type FE	Yes	Yes	Yes	Yes
Loan purpose FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
State of incorporation FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

TABLE 7

Channel Tests

This table reports tests of the channels through which constituency statutes affect the cost of debt. Panel A examines the cross-sectional variation in the treatment effect. Panel B examines whether constituency statutes mitigate the debt overhang problem. We employ a subsample of firms whose annual industry-level stock return is below the sample median (i.e., firms close to financial distress). The dependent variables are: *R&D, ln(1 + #PATENTS), ln(1 + #CITATIONS), and CAPEX*. Panel C examines whether constituency statutes reduce firms' riskiness as measured by *ASSET_VOLATILITY*, *EXPECTED DEFAULT PROBABILITY*, and *RATING_SCORE*. Panel D examines whether constituency statutes reduce real earnings and accruals management as measured by real earnings management (*REM*), signed discretionary accruals (*SDA*), and small increase in earnings (*SI*). Panel E examines whether constituency statutes lower litigation risk as measured by *ln(#NEGATIVE_LITIGIOUS_WORDS)*. Panel F examines whether our main findings remain in subsamples of firms that are less likely to be takeover targets (i.e., firms whose book value of total assets is in the top quartile of the sample, firms whose industry-adjusted Q is in the top quartile of the sample, or firms whose state of incorporation have already adopted other antitakeover laws). Variable definitions are provided in the Appendix. Robust standard errors clustered at the state of incorporation level are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Cross-sectional variation in the treatment effect

	ln(LOAN_SPREAD)			
	(1)	(2)	(3)	(4)
CONSTITUENCY_STATUTE × INDUSTRY_DOWNTURN	-0.058***			
	(0.021)			
INDUSTRY_DOWNTURN	0.016			
	(0.010)			
CONSTITUENCY_STATUTE × HIGH_TRANSIENT_INSTITUTIONAL_OWNERSHIP		-0.054**		
		(0.022)		
HIGH_TRANSIENT_INSTITUTIONAL_OWNERSHIP		0.029***		
		(0.006)		
CONSTITUENCY_STATUTE × HIGH_LITIGATION_RISK			-0.077**	
			(0.027)	

HIGH_LITIGATION_RISK			0.140***	
			(0.013)	
CONSTITUENCY_STATUTE × HIGH_TAKEOVER_RISK				-0.192***
				(0.039)
HIGH_TAKEOVER_RISK				0.068***
				(0.013)
CONSTITUENCY_STATUTE	-0.145*	-0.167**	-0.178**	-0.074
	(0.074)	(0.077)	(0.075)	(0.049)
Other controls	Same as column (2) of Table 4			
No. of obs.	36,519	33,604	31,566	36,519
R^2	0.769	0.770	0.778	0.770
Credit Lyonnais FE	Yes	Yes	Yes	Yes
Loan type FE	Yes	Yes	Yes	Yes
Loan purpose FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

Panel B: Constituency statutes and debt overhang

	R&D	*ln(1 + #PATENTS$_{t+3}$)*	*ln(1 + #CITATIONS$_{t+3}$)*	*CAPEX*
	(1)	(2)	(3)	(2)
CONSTITUENCY_STATUTE	0.007*	0.034	0.230**	0.012*
	(0.004)	(0.048)	(0.089)	(0.006)
ln(TOTAL_ASSETS)	-0.015***	0.127***	0.211***	-0.000
	(0.005)	(0.024)	(0.050)	(0.001)
TOBIN'S_Q	0.003***	0.049***	0.047	0.009***
	(0.001)	(0.016)	(0.031)	(0.001)
BOOK_LEVERAGE	0.020*	-0.005	-0.013	0.001
	(0.011)	(0.035)	(0.092)	(0.006)
PROFITABILITY	-0.084***	-0.339**	-0.430	-0.049***
	(0.028)	(0.168)	(0.473)	(0.015)
TANGIBILITY	0.025***	0.296***	0.950***	0.165***
	(0.006)	(0.095)	(0.201)	(0.010)
CASH_FLOW_VOLATILITY	0.181*	0.223	1.226*	-0.104***
	(0.090)	(0.170)	(0.677)	(0.017)
Z-SCORE	-0.001	0.025*	0.082	0.009***
	(0.001)	(0.015)	(0.050)	(0.003)
BUSINESS_COMBINATION_LAW	0.004	-0.006	0.092	-0.005
	(0.006)	(0.049)	(0.127)	(0.008)
CONTROL_SHARE_ACQUISITION_LAW	-0.001	0.026	0.115	-0.014
	(0.006)	(0.092)	(0.133)	(0.011)
FAIR_PRICE_LAW	-0.000	0.130	-0.024	0.019
	(0.007)	(0.106)	(0.172)	(0.012)
CONSTANT	0.121***	-0.493***	-0.502	-0.002
	(0.028)	(0.161)	(0.302)	(0.015)
No. of obs.	5,584	10,294	10,294	11,155
R^2	0.844	0.919	0.872	0.813
Credit Lyonnais FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

Panel C: Constituency statutes and firm risk of default

	ASSET_VOLATILITY (1)	*EXPECTED DEFAULT PROBABILITY* (2)	*RATING_SCORE* (3)
CONSTITUENCY_STATUTE	-0.025*	-0.014**	-0.250**
	(0.014)	(0.005)	(0.118)
ln(TOTAL_ASSETS)	-0.050***	-0.009***	-0.835***
	(0.002)	(0.003)	(0.038)
TOBIN'S_Q	0.013***	-0.018***	-0.377***
	(0.002)	(0.002)	(0.044)
BOOK_LEVERAGE	-0.300***	0.192***	2.612***
	(0.017)	(0.019)	(0.149)
PROFITABILITY	-0.083***	-0.278***	-4.828***
	(0.022)	(0.018)	(0.506)
TANGIBILITY	-0.025	0.021*	-0.533*
	(0.018)	(0.011)	(0.284)
CASH_FLOW_VOLATILITY	0.604***	0.347***	-0.351
	(0.064)	(0.031)	(0.698)
Z-SCORE	-0.041***	-0.015***	-0.388***
	(0.004)	(0.003)	(0.048)
BUSINESS_COMBINATION_LAW	-0.003	-0.022**	0.093
	(0.013)	(0.009)	(0.181)
CONTROL_SHARE_ACQUISITION_LAW	0.020	-0.006	0.068
	(0.018)	(0.017)	(0.233)
FAIR_PRICE_LAW	-0.022	-0.033**	-0.398*
	(0.018)	(0.012)	(0.226)
CONSTANT	0.929***	0.150***	17.570***
	(0.021)	(0.021)	(0.289)
No. of obs.	19,988	19,988	10,807
R^2	0.676	0.486	0.899
Credit Lyonnais FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes

Panel D: Constituency statutes and earnings management

	REM	*SDA*	*SI*
	(1)	(2)	(3)
CONSTITUENCY_STATUTE	-0.018**	-0.018**	-0.077**
	(0.020)	(0.040)	(0.046)
ln(TOTAL_ASSETS)	-0.004***	-0.018***	0.035***
	(0.004)	(0.000)	(0.000)
TOBIN'S_Q	-0.002	0.005*	0.021***
	(0.432)	(0.052)	(0.000)
BOOK_LEVERAGE	0.008	-0.016	-0.138***
	(0.266)	(0.204)	(0.000)
PROFITABILITY	-0.121***	0.176***	0.202***
	(0.000)	(0.000)	(0.005)
TANGIBILITY	0.002	-0.044***	0.040
	(0.898)	(0.005)	(0.150)
CASH_FLOW_VOLATILITY	-0.076*	-0.016	-0.387***
	(0.087)	(0.596)	(0.000)
Z-SCORE	0.003	-0.012***	0.024***
	(0.157)	(0.000)	(0.000)
BUSINESS_COMBINATION_LAW	0.027**	-0.008	-0.054**
	(0.039)	(0.584)	(0.037)
CONTROL_SHARE_ACQUISITION_LAW	0.013	0.012	-0.007
	(0.286)	(0.430)	(0.785)
FAIR_PRICE_LAW	-0.031*	-0.018	0.089**
	(0.051)	(0.336)	(0.020)
CONSTANT	0.039***	0.150***	-0.197***
	(0.002)	(0.000)	(0.000)
No. of obs.	16,214	16,090	22,888
R^2	0.338	0.417	0.305
Credit Lyonnais FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes

Panel E: Constituency statutes and legal risk

	ln(#NEGATIVE_LITIGIOUS_WORDS)	
	1994−2012	1996−2012
	(1)	(2)
CONSTITUENCY_STATUTE	-0.373***	-0.351***
	(0.095)	(0.093)
ln(TOTAL_ASSETS)	0.051**	0.044*
	(0.023)	(0.025)
TOBIN'S_Q	-0.059***	-0.066***
	(0.021)	(0.021)
BOOK_LEVERAGE	-0.203	-0.239
	(0.164)	(0.150)
PROFITABILITY	-0.315**	-0.153
	(0.146)	(0.143)
TANGIBILITY	-0.304*	-0.256
	(0.175)	(0.164)
CASH_FLOW_VOLATILITY	0.844***	0.633**
	(0.292)	(0.311)
Z-SCORE	-0.081***	-0.080***
	(0.029)	(0.024)
BUSINESS_COMBINATION_LAW	-0.115	-0.153
	(0.281)	(0.288)
CONTROL_SHARE_ACQUISITION_LAW	-0.152**	-0.147**
	(0.068)	(0.070)
FAIR_PRICE_LAW	0.641***	0.600**
	(0.225)	(0.228)
CONSTANT	3.452***	3.698***
	(0.318)	(0.320)
No. of obs.	12,294	11,798
R^2	0.663	0.666
Firm FE	Yes	Yes
Year FE	Yes	Yes
% of treated firms	3.15%	3.23%

Panel F: Subsamples of firms that are least likely to be takeover targets

	ln(LOAN_SPREAD)		
	(1)	(2)	(3)
	Larger firms	Better-performing firms	Firms in states that have already adopted other antitakeover laws
CONSTITUENCY_STATUTE	-0.180**	-0.145***	-0.169**
	(0.080)	(0.042)	(0.073)
Other controls	Same as column (2) of Table 4		
No. of obs.	9,129	8,602	34,197
R^2	0.788	0.857	0.770
Credit Lyonnais FE	Yes	Yes	Yes
Loan type FE	Yes	Yes	Yes
Loan purpose FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes

TABLE 8

Information Asymmetry, Constituency Statutes, and CSR

This table reports difference-in-differences tests that examine the heterogeneous effect of constituency statutes on corporate social responsibility. We merge our sample with the MSCI ESG STATS database (formerly known as the KLD database) for the period 1991−2012. The dependent variable is *CSR*. We measure information asymmetry using R&D expenses, bid-ask spreads, firm size, and stock return volatility. In column (1), the indicator variable, *HIGH_INFORMATION_ASYMMETRY*, takes the value of one if the industry average R&D expenses scaled by total assets is in the top decile of the sample, and zero otherwise. In column (2), the indicator variable, *HIGH_INFORMATION_ASYMMETRY*, takes the value of one if a firm's average bid-ask spread in the year is in the top decile of the sample, and zero otherwise. Daily bid-ask spread is calculated as the difference between ask or high price and bid or low price scaled by the closing price. In column (3), the indicator variable, *HIGH_INFORMATION_ASYMMETRY*, takes the value of one if a firm's book value of total assets is in the bottom decile of the sample, and zero otherwise. In column (4), the indicator variable, *HIGH_INFORMATION_ASYMMETRY*, takes the value of one if the standard deviation of a firm's month stock return over the last 12 months is in the top decile of the sample, and zero otherwise. Variable definitions are provided in the Appendix. Robust standard errors clustered at the state of incorporation level are reported in parentheses. The superscripts ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	CSR			
	(1)	(2)	(3)	(4)
CONSTITUENCY_STATUTE × HIGH_INFORMATION_ASYMMETRY	0.077***	0.069**	0.088*	0.051*
	(0.022)	(0.027)	(0.051)	(0.029)
HIGH_INFORMATION_ASYMMETRY	-0.060***	-0.059***	-0.091***	-0.050***
	(0.014)	(0.008)	(0.019)	(0.007)
CONSTITUENCY_STATUTE	0.122***	0.112***	0.119***	0.114***
	(0.043)	(0.040)	(0.042)	(0.040)
ln(TOTAL_ASSETS)	-0.046***	-0.046***	-0.054***	-0.046***
	(0.013)	(0.013)	(0.015)	(0.013)

Market-to-book	0.002	0.004	0.004	0.003
	(0.008)	(0.007)	(0.008)	(0.007)
Leverage	-0.046	-0.049	-0.062	-0.043
	(0.058)	(0.057)	(0.064)	(0.056)
PROFITABILITY	0.197**	0.161**	0.208**	0.156*
	(0.083)	(0.079)	(0.082)	(0.080)
TANGIBILITY	-0.176	-0.169	-0.190	-0.172
	(0.155)	(0.156)	(0.162)	(0.157)
CASH_FLOW_VOLATILITY	-0.414*	-0.413**	-0.397*	-0.418**
	(0.209)	(0.205)	(0.206)	(0.207)
Z-SCORE	0.007	0.006	0.003	0.008
	(0.021)	(0.022)	(0.023)	(0.021)
BUSINESS_COMBINATION_LAW	0.136	0.130	0.146	0.134
	(0.136)	(0.136)	(0.133)	(0.133)
CONTROL_SHARE_ACQUISITION_LAW	-0.158**	-0.155**	-0.158**	-0.156**
	(0.066)	(0.063)	(0.059)	(0.064)
FAIR_PRICE_LAW	-0.172	-0.166	-0.196	-0.166
	(0.129)	(0.126)	(0.125)	(0.127)
CONSTANT	0.480**	0.490**	0.557**	0.483**
	(0.200)	(0.209)	(0.234)	(0.202)
No. of obs.	6,236	6,236	6,236	6,236
R^2	0.687	0.687	0.687	0.687
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes