Stakeholder Orientation and Corporate Payout Policy: Insights from State Legal Shocks

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Abstract

We employ a difference-in-differences estimation approach to examine the impact of stakeholder orientation on corporate payout policy. The empirical test exploits the enactment of US state-level constituency statutes, which allow directors to consider stakeholders and long-term interests in corporate decision making. We find that firms incorporated in states that have adopted constituency statutes significantly reduce share repurchases, whereas the effects of statute enactment on total payout and dividend payments are marginal and insignificant, respectively. We further show that the negative statute effect on share repurchases is more pronounced for firms that are in financial distress or are close to default, and firms in consumer-focused and high-polluting industries. Overall, our findings indicate that promoting stakeholder orientation can have a significant impact on corporate payout decisions.

1. Introduction

In recent years, both academics and practitioners argue that the capital reduction and higher leverage ratios caused by excessive corporate payouts (i.e., dividends and share repurchases) could lead to a significant wealth transfer from stakeholders to shareholders, and thereby ruin a firm's capacity to create value for stakeholders in the long run (see, e.g., Maxwell and Stephens, 2003; Vermaelen, 2005; Lazonick, 2014; *The Wall Street Journal*, 2018). For example, Laurence Fink, the chairman and CEO of BlackRock, indicates that "[T]oo many companies have cut capital expenditure and even increased debt to boost dividends and increase share buyback … [and thus] it can jeopardize a company's ability to generate sustainable long-term returns" (*Financial Times*, 2014). The recent speech by Robert J. Jackson Jr., the commissioner of the US Securities and Exchange Commission (SEC), suggests the necessity to revise rules to limit share repurchases and to create long-term value that benefits stakeholders.[1] Similarly, in a recent article, Senators Chuck Schumer of New York and Bernie Sanders of Vermont points out that "…[w]hat's clear to the vast majority of Americans is that companies should devote resources to workers and communities before buying back stock" (*The New York Times*, 2019).

Previous studies have provided useful insights into the effects of stakeholder orientation on corporate decision making, such as innovation, mergers and acquisitions, accounting conservatism, earnings management, and bank risk taking (see, e.g., Flammer and Kacperczyk, 2016; Bettinazzi and Zollo, 2017; Radhakrishnan et al., 2018; Leung et al., 2019; Ni, 2020). Yet, the empirical evidence on the association between stakeholder orientation and corporate payout policy is scant. Our paper attempts to fill this gap.

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[1] "Stock Buybacks and Corporate Cashouts", https://www.sec.gov/news/speech/speech-jackson-061118

The extant literature proposes two opposing views on the role of a corporation. According to the traditional shareholder primacy view, a corporation is primarily responsible for maximizing its shareholders' wealth, and hence, stakeholders' claims that sacrifice shareholder wealth should not be taken into consideration (Friedman, 1998; Pagano and Volpin, 2005; Bénabou and Tirole, 2010; Masulis and Reza, 2015). However, the stakeholder orientation view suggests that a corporation is a nexus of contracts between shareholders and non-shareholding stakeholders through which various stakeholders provide resources in exchange for both explicit contracts (e.g., wage contracts) and implicit claims (e.g., continuing services to customers, job securities). Thus, besides value creation for its shareholders, a stakeholder-oriented firm should also consider the long-term interests of stakeholders and keep its implicit commitment to the stakeholders (Cornell and Shapiro, 1987; Bainbridge, 1992; Freeman et al., 2004; Deng et al., 2013).

When the board of directors is exclusively responsible for shareholder value maximization, the conflicts of interest between shareholders and stakeholders can cause the emergence of excessive dividend payments or share repurchases (Holder et al., 1998; Lie, 2005a; Vermaelen, 2005; Hribar et al., 2006; Chu, 2018). As documented by Dhillon and Johnson (1994) and Maxwell and Stephens (2003), since corporate payouts reduce the cash and other assets that would otherwise be used to cover interest payments to creditors, large dividend increases and share repurchases are associated with significant wealth transfers from stakeholders (e.g., creditors) to shareholders. On the other hand, excessive corporate payouts can result in higher leverage ratios and greater financial risk (Maxwell and Stephens, 2003; DeAngelo et al., 2004), thereby increasing the firm's likelihood of default on its implicit commitment by causing layoffs and reducing employee benefits (Cornell and Shapiro, 1987; Ofek, 1993; Holder et al., 1998; Bae

et al., 2011; Almeida et al., 2016). Based on these arguments, we expect that firms may pay out less when there is an increase in stakeholder orientation, and this negative relation is more pronounced for share repurchases. This is because, first, dividends are sticky and more likely to reflect firms' permanent earnings (Jagannathan et al., 2000; Moyen, 2004). Since firms that reduce or cut dividends may receive significant and negative price reactions (Michaely et al., 1995; Bessler and Nohel, 1996; Brav et al., 2005), corporate management has a strong propensity to maintain the current level of dividend payout and is extremely reluctant to cut dividends (see, e.g., Brav et al., 2005). Second, unlike dividends, share repurchases are more discretionary and do not involve commitments to make future distributions (Fenn and Liang, 1997; Jagannathan et al., 2000; Grullon and Michaely, 2004; Zhang, 2005). Also, firms are often able to adjust share repurchases more quickly than cash dividends (Skinner, 2008; Chu, 2018). Therefore, we expect that, in order to consider the best interest of the company, stakeholder orientation may have a stronger impact on share repurchases.

To generate plausibly exogenous variation in stakeholder orientation, we exploit the staggered enactment of constituency statutes across US states, which allows the board of directors to consider stakeholder interests and long-term corporate objectives when making business decisions. Moreover, from the view of empirical analysis, the adoption of constituency statutes serves as a good candidate for quasi-exogenous variation in stakeholder orientation. First, the passage of constituency statutes marks a legal corporate norm shift from the objective of shareholder value maximization towards greater stakeholder orientation (Orts, 1992), which is not particularly intended to alter the firms' payout policies. Second, constituency statutes have real effects on encouraging the formation of stakeholder-oriented boards and stakeholder-

oriented activities (Luoma and Goodstein, 1999; Geczy et al., 2015; Cheng et al., 2018).[2] Third, the state-level staggered enactment of constituency statutes can introduce both cross-sectional and intertemporal variations in stakeholder orientation of firms incorporated in different states (Flammer and Kacpercyzk, 2016). Empirically, such a framework can mitigate the concern of potential biases and noise coinciding with a signal shock that directly influences share repurchases (Roberts and Whited, 2013; Gao et al., 2020).

Following Bertrand and Mullainathan (2003), we employ a difference-in-differences (DID) approach to examine whether stakeholder orientation affects corporate payout policy. Using a sample consists of 86,032 firm-year observations, we find evidence that supports our conjecture. The adoption of constituency statute has a marginal effect on corporate total payout and has no significant effect on cash dividends. Importantly, the results show that, on average, firms incorporated in states with which the statute passage (i.e., treatment group) experience a significant decrease in share repurchases by approximately 21% compared to firms incorporated in states without such statutes (i.e., control group) in a given year. This result is also economically meaningful, implying that a mean firm will have an approximately $2.99 million decrease in annual share repurchases.

We next examine the cross-sectional variation in firm characteristics to explore channels through which stakeholder orientation can decrease the propensity to repurchase shares. We find that the treatment effect is more pronounced for firms that are in financial distress or are close to default, and firms in consumer-focused and high-polluting industries. These results support the view that stakeholder orientation plays an important role in influencing share repurchases when

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[2] Luoma and Goodstein (1999) report an increase in the representation of non-shareholding stakeholders on board following the adoption of constituency statutes. Cheng et al. (2018) find that the adoption of constituency statutes has a positive impact on corporate social responsibility engagement.

conflicts of interest between shareholders and stakeholders are likely to be more severe, or when the level of stakeholder awareness and engagement is likely to be higher.

To mitigate the potential endogeneity concern relating to reverse causality, we use the Cox proportional hazard model to examine whether share repurchases may influence the timing of the adoption of constituency statutes. By analysing the sample with panel data at the state of incorporation and fiscal-year levels, we find that the state-aggregated share repurchases measure is statistically insignificant in influencing the likelihood of statute adoption, suggesting that reverse causality is unlikely to affect our results.

One usual concern on the identifying assumption of the DID framework is whether treated and control firms follow parallel trends prior to the statue's passage. We show that the statute effects up to two years prior to the treatment are statistically insignificant, suggesting that the pre-treatment differences between the two groups are indistinguishable. Moreover, we find the decrease in share repurchases occurs after the enactment of constituency statutes. These results help to further rule out reverse causality concerns and support our conjecture.[3]

To ensure that our results on the impact of constituency statutes on share repurchases are not driven by chance, we conduct the placebo test by randomizing both the enactment years and the assignment of treated states (with no replacement). We develop 5,000 placebo samples and create the distribution of placebo coefficient estimates. The results show that our baseline DID estimate is smaller than 98.7% of the placebo estimates, which lies well to the left of the entire distribution of placebo estimates.

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[3] In un-tabulated results, we perform such dynamic treatment analysis by investigating the statute effect on share repurchases up to seven years prior to the treatment. We find that our results still hold.

We perform several robustness checks of our findings on the negative relation between the adoption of constituency statutes and share repurchases. First, to further control for differences in firm characteristics between treatment and control groups, we re-estimate the baseline model using a performance-matched sample and find that our results remain quantitatively unchanged. Second, it could be the case that our results may capture the effect of constituency statutes designing as an antitakeover provision. Since share repurchase activity is positively associated with takeover probability (Billett and Xue, 2007; Huang, 2015), our results could be driven by antitakeover protection rather than stakeholder orientation. We examine this possibility by controlling for other confounding law changes (see, e.g., Karpoff and Wittry, 2018) and provide support in favour of the stakeholder orientation effect on share repurchases. Third, we find that our results still hold after considering the possibility that corporate lobbying and the endogenous choice of the incorporation state might have driven our results. Finally, we show that our results remain robust to alternative model specifications, different event windows around the passage of constituency statutes, and alternative measures of share repurchases.

Our paper adds to the recent literature that examines the real effects of stakeholder orientation on corporate behaviour. Using the adoption of state-level constituency statutes as an exogenous variation in stakeholder orientation, Flammer and Kacperczyk (2016) report a significant and positive association between stakeholder orientation and firm innovation. Leung et al. (2019) find, using a sample of 939 publicly listed US bank holding companies (BHCs), that stakeholder orientation significantly decreases excessive bank risk-taking. Gao et al. (2020) examine the stakeholder orientation effect on the cost of debt and find a significant decline in loan spreads for firms incorporated in states that have passed the statutes. They suggest that the reduction in conflict of interests between shareholders and stakeholders following the adoption

of constituency statutes could be the channel of their findings. Ni (2020) finds that greater stakeholder orientation significantly reduces discretionary accruals, while the improved financial reporting quality can be a channel through which stakeholder orientation increases shareholder value. Two other contemporary studies by Bettinazzi and Zollo (2017) and Cremers et al. (2019) find support for a positive relationship between stakeholder orientation and shareholder value. We extend this line of research by investigating the impact of stakeholder orientation on corporate payout policy, which lies at the heart of the wealth transfer between shareholders and stakeholders.

Our paper is related to the literature on the determinants of corporate payout policies. Although the relation between shareholder and stakeholder having a first-order effect on corporate payouts is not new (see, e.g., Jensen and Meckling, 1976; Smith and Warner, 1979), empirical evidence on this issue is relatively rare. One noticeable exception is Chu (2018), which studies how the shareholder-creditor conflict affects payout policy. Using mergers between lenders and institutional shareholders within the same firm as a natural experiment, the author documents that firms distribute excessive payouts to shareholders at the expense of creditors when shareholders' and creditors' interests are not aligned. Our paper adds to this stream of literature by employing the adoption of constituency statutes as an exogenous shock and reports a significant and negative association between stakeholder orientation and share repurchases.

Nevertheless, our paper is also related to the literature on the debate of corporate objectives and the purpose of directors' fiduciary duties (see, e.g., Marens and Wicks, 1999; Zingales, 2000; Jensen, 2001; Tirole, 2001; Becker and Strömberg, 2012). Unlike prior studies that explore certain types of stakeholders' attitudes towards corporate payout policies (see, e.g., Brockman and Unlu, 2009; Wang, 2012; Chen et al., 2015; Haw et al., 2018), our study focuses on the

fundamental changes in the objective of a firm (i.e., from shareholder-primacy to stakeholder-orientation) and provides a causal effect of stakeholder orientation on corporate decision making.

The rest of the paper is organized as follows: Section 2 introduces the institutional background and hypothesis. Section 3 describes our sample and empirical design. Section 4 presents empirical results, and Section 5 concludes the study.

2. Institutional background and hypothesis development

2.1 Background on constituency statutes

The discussion on the fundamental objective of a corporation and whether management duties and responsibilities should be solely to shareholders, or also to non-shareholding stakeholders, can be traced back to the debate between Berle and Dodd in the 1930s. Berle (1931) posits that management needs to focus on shareholder value maximization, and hence, directors' duties should stay within such a principle. Dodd (1932), in contrast, argues that corporations not only have the objective of profit-making but also the function to provide social services. Therefore, directors should serve as trustees for non-shareholding stakeholders rather than shareholders only.

This debate is evident under the 1980s hostile takeover waves in the US where the corporate governance and the role of corporate social status have been argued more fully among regulators, practitioners, and law academics. Specifically, as takeovers usually benefit target shareholders, the change of ownership following these deals could impose significant costs on creditors, employees, communities, etc. (Pontiff et al., 1990; Schneper and Guillén, 2004). Under such a circumstance, there is increasing criticism of the inability of corporate laws in protecting

stakeholder interests, which eventually facilitates the formation of the constituency statutes (Elhauge, 2005; Barzuza, 2009). As of the end of 2010, there are 35 states that have passed the constituency statutes. We list all these 35 states along with the enactment years in Table 1 and illustrate the state-by-state adoption of the constituency statutes in Figure 1.

[Insert Table 1 and Figure 1 here]

The core theme of the constituency statutes is that directors and officers are permitted to consider the interests of stakeholders when making corporate decisions, without violating their fiduciary duties to shareholders (Orts, 1992; Springer 1999). For example, the 1987 New Mexico statute (*N.M. STAT. ANN. § 53- 11-35(d)*) stipulates that when considering the best interest of the company, a director may consider the interests of (1) the corporation's employees, suppliers, creditors and customers; (2) the economy of the state and nation; (3) the community and the rest of the society; (4) the long-term interests of the corporation.

Despite these statutes being permissive in nature, they are legally enforceable and marked as the beginning of legal legitimacy of the stakeholder theory in corporate management. Geczy et al. (2015) find that there are overall 47 federal and state court cases that discussed/applied the constituency statues from 1983 to 2013, among which 61.7% are coded as "Positive" or "Positive/Neutral," 29.8% are coded as "Neutral," and only 8.5% are coded as "Negative/Neutral." After analysing court opinions of these cases, the authors regard constituency statutes as "a true expansion of directors' authority" and they "signal a change in the law" to take stakeholder interests into consideration. Furthermore, despite the adoption of constituency statutes being initially driven by the hostile merge waves in the 1980s (Karpoff and Wittry, 2018), the application of the statutes is not limited to corporate takeovers. Indeed,

Bainbridge (1992) and Oswald (1998) show that over half of the statutes can be applied to general corporate decision making.

The recent literature provides direction regarding whether and how the enactment of constituency statutes affects corporate policies and enhances stakeholder performance. For example, Luoma and Goodstein (1999) report that the adoption of constituent statutes is associated with a greater representation of stakeholders that also act on boards of directors. Flammer and Kacperczyk (2016) show that firms incorporated in states that have passed constituency statutes undertake more stakeholder-friendly policies than firms incorporated in states without the passage of such statutes, and hence, the adoption of constituency statutes has a positive effect on innovation. Leung et al. (2019) find a negative and significant association between the enactment of constituency statutes and excessive bank risk taking. The effect of constituency statute becomes more prominent for banks with higher risks, and the treated banks perform better during the financial crisis than the control banks. Gao et al. (2020) examine the relationship between stakeholder orientation and a firm's cost of debt. They find that firms incorporated in states that adopted constituency statutes have a significant drop in loan spreads when compared with firms incorporated elsewhere. They further attribute their findings to the fact that the enactment of constituency statutes mitigates the conflicts of interest between shareholders and other stakeholders. Ni (2020) finds that the adoption of constituency statutes significantly reduces discretionary accruals. The statute effect is stronger for firms with greater tension between shareholders and stakeholders, and firms with higher information acquisitions costs for the board.

2.2 Hypothesis development

Building upon the process work by Emshoff and Freeman (1978) and Mitroff and Mason (1982), Freeman (1984) widens the concept of strategic management as traditional economic roots to the stakeholder approach, by defining stakeholders as "any group or individual who is affected by or can affect the achievement of an organization's objectives." Thus, from a firm's perspective, the firm's claimants should range from shareholders and bondholders to customers, suppliers, employees, producers and distributors, etc. (Jensen and Meckling, 1976; Fama and Jensen, 1983; Cornell and Shapiro, 1987). Fama (1990) suggests that like creditors, other non-shareholding stakeholders, such as employees, customers, and suppliers, are fixed claimants of a firm and have similar risk preferences, while shareholders are residual claimants and bear the residual risk of net cash flows. Following these arguments, some previous studies indicate that shareholders and stakeholders may have different risk preferences and firm-specific investment incentives (see, e.g., Titman, 1984; Banerjee et al., 2008; Bae et al., 2011; Leung et al., 2019).

A central result in corporate finance theory is that conflicts of interest between shareholders and stakeholders can lead to agency costs in the form of excessive corporate payouts, which consequently result in a significant wealth transfer from stakeholders (e.g., creditors) to shareholders (Jensen and Meckling, 1976; Smith and Warner, 1979; Acharya et al., 2016; Chu, 2018). Dhillon and Johnson (1994) report a positive stock price reaction to announcements of large dividend increases, whereas the bond price reaction to such announcements is negative. Maxwell and Stephens (2003) suggest that dividends and share repurchases distribute cash flows to shareholders by reducing the cash and other firm assets that can be used to meet bondholders' interests in the long run. Vermaelen (2005) documents that share repurchases generally benefit shareholders at the expense of other stakeholders because the capital reduction may eventually

cause a significant loss to stakeholders who have less risk-taking incentives. Similarly, a recent study by Bendig et al., (2018) finds that share repurchases can lead to myopic marketing management, which diminishes firms' marketing investments and resources for their customers, and therefore have a positive impact on the likelihood of product recalls.

On the other hand, one stream of literature points out that excessive corporate payouts can cause higher leverage ratios and greater financial risk (Maxwell and Stephens, 2003; Bae et al., 2011; Chen et al., 2015; Almeida et al., 2016; Pugachev, 2019). A firm can be viewed as a nexus of contacts between shareholders and stakeholders where various stakeholders provide resources in exchange for both explicit contractual claims and implicit claims (Jensen and Meckling, 1976; Easterbrook and Fischel, 1989, Deng et al., 2013). As pointed out by Cornell and Shapiro (1987), explicit claims are usually legal contracts, such as product warranties and wage contracts, while implicit claims, such as the promises to provide service and job security to employees, are nebulous and too ambiguous to reduce to a written form of explicit claims. The authors further document that because a firm can choose to default on its implicit claims, even without being forced into bankruptcy or liquidation, the value of implicit claims is uncertain and highly sensitive to the firm's financial conditions. Hence, when the firm is likely to violate its implicit promises due to weak financial conditions, stakeholders can play a vital role in influencing corporate financial decisions through both explicit and implicit claims on the value of the firm (Jensen, 1983; Cornell and Shapiro, 1987; Holder et al., 1998). Consistent with this argument, some studies provide evidence that firms maintain lower leverage to reassure their stakeholders about the credibility of an implicit commitment (Titman and Wessels, 1988; Maksimovic and Titman, 1991; Kale and Shahrur, 2007; Banerjee et al., 2008; Bae et al., 2011). For corporate payout policy, Holder et al. (1998) find some evidence that firms that consider the claims of

stakeholders choose a more conservative dividend policy. Chen et al. (2015) show that firms facing stronger labor power have a lower propensity to repurchase shares.

Although some corporate policies may often benefit shareholders at the expense of stakeholders, whose interests are not fully protected by explicit contracts, corporate directors and officers are not legally allowed to consider stakeholders' interests and projects that do not serve the goal of maximizing shareholder wealth. Given that the shareholder primacy view prevailed in court, corporate leaders fearing litigation might feel reluctant to divert their attention from shareholder value maximization (Smith, 1998; Fisch, 2005; Leung et al., 2019). However, after the passage of constituency statutes, directors are allowed to manage the firm in the interests of stakeholders, rather than merely shareholders (Orts 1992; Springer, 1999). Motivated by this insight, we expect that firms may pay out less following the enactment of constituency statutes. More specifically, when decomposing total payout into cash dividends and share repurchases, prior studies suggest that cash dividends are generally stable over time, and firms tend to avoid reducing or skipping cash dividends because doing so will send negative signals regarding firms' future prospects and lead to negative market reactions (Miller and Rock, 1985; John and William, 1985; DeAngelo et al., 2009). Share repurchases, unlike cash dividends, are more flexible in terms of the amount and timing of payout (Guay and Harford, 2000; Jagannathan et al., 2000), are not firm commitments (Fenn and Liang, 1997), and are more quickly adjusted (Skinner, 2008; Chu, 2018). Based on these, we conjecture that the negative statute effect will be more pronounced for share repurchases.

3. Data and empirical design

3.1 Data and sample selection

Our sample is developed from the CRSP/Compustat merged dataset. The sample period is from 1980 to 2010, which is four years before the first adoption of constituency statutes in Ohio in 1984, and three years after the latest adoption of constituency statutes in Nebraska in 2007. To be included in the sample, we require that a firm's fiscal year-end total assets should be larger than $1 million, and its fiscal year-end closing price is higher than $1. We also exclude firms from the financial (SIC 6000-6999) and utility (SIC 4910-4939) industries. Our final sample consists of 86,032 firm-year observations between 1980 and 2010.

According to Fenn and Liang (2001), Grullon and Michaely (2002), John et al. (2011), Babenko et al. (2012), and Bliss et al. (2015), we measure total corporate payouts (*PAYOUT_TOTAL*) as the sum value of cash dividend (DVC) and dollar amount of share repurchases (PRSTKC-ΔPSTKRV) scaled by the market value of common equity (PRCC_F×CSHO), dividend payments (*DIV*) as cash dividend (DVC) scaled by the market value of common equity, and share repurchases (*REP*) as dollar amount share repurchases (PRSTKC-ΔPSTKRV) scaled by the market value of common equity. To facilitate the interpretation of estimation results, we multiple the original value of all three payout measures with 100.

Similar to previous studies by Barth and Kasznik (1999), Jagannathan et al. (2000), Grullon and Michaelly (2002), Dittmar (2008), Skinner (2008), Von Eije and Megginson (2008), Grullon et al. (2011), and Jacob and Jacob (2013), we control firm size (*SIZE*), leverage (*LEV*), firm age (*LOGAGE*), market-to-book ratio (*MB*), sales growth (*SALEG*), earnings volatility (*EARNVOL*), cash holdings (*CASH*), return on assets (*ROA*), and institutional ownership (*INST*) in the baseline

model. We provide detailed variables definitions in the Appendix. All variables are winsorized at the 1st and 99th percentiles, and express dollar values in 2000 dollars.

Table 2 presents summary statistics for the variables included in our regression analysis. We show that the average total payout yield of our sample is 2.19%, the average dividend yield is 0.93%, and the average repurchase yield is 1.17%. An average firm has a firm size of 5.157, a leverage of 21.7%, a firm age of about 10 years old, a market to book ratio of 2.736, a sales growth of 8.4%, an earnings volatility of 6.9%, a cash ratio of 16.7%, a return on assets of -1%, and a fraction of institutional holdings of 28.8%.

[Insert Table 2 here]

3.2 Empirical design

Following the study by Flammer and Kacperczyk (2016), to assess the effect of adoption of constituency statutes on payout policy, we use the following difference-in-differences model:

$$PAYOUT_{ist} = \alpha_0 + \alpha_1 CS_{st} + \gamma Control_{ist-1} + f_i + \omega_{ht} + \varepsilon_{ist} \qquad (1)$$

where i indexes firm, s indexes state of incorporation, h indexes state of headquarter, and t indexes year. $PAYOUT$ refers to each of the three measures of payout, including $PAYOUT\_TOTAL$, DVC, and REP. The main explanatory variable is CS, which is an indicator variable equal to one if state s has adopted a constituency statute in year t, and zero otherwise. $Control$ includes several firm-level control variables. We control for firm fixed effects, denoted as f_i, to remove unobserved time-invariant firm characteristics. We also control for the effects of time-varying local shocks (e.g., changes in local economic conditions) on corporate payouts by interacting a state (of location) indictor with the year dummies, denoted as ω_{ht}. As 68.6% (=58,992/86,032) observations in our sample are incorporated and located in different states, we

are able to estimate the effect of constituency statutes even after including state-of-headquarter-by-year fixed effects.

Our identification strategy relies on the assumption that the adoption of constituency statutes is exogenous and is uncorrelated with other determinants of payout policy. Because the change in stakeholder orientation occurs at the state-of-incorporation level, we cluster standard errors by state-of-incorporation to account for potential time-varying correlations in unobserved factors that affect different firms within the same incorporated state, which is more general than clustering at the firm level (Bertrand and Mullainathan, 2003; Bertrand et al., 2004; Serfling, 2016).

As shown in equation (1), the average treatment effect of stakeholder orientation on corporate payouts is captured by the estimated coefficient on CS, α_1. By including the firm and state-of-headquarter-by-year fixed effects, we are able to allow α_1 to be estimated as the within-state differences before and after the constituency statute adoption as opposed to the before-after differences in states which have not experienced such statute change over the same period (Imbens and Wooldridge, 2009; Gao and Zhang, 2017).

To have a better illustration, if we are interested in estimating the effect of the adoption of the constituency statute in Florida in 1989 on corporate payouts, we can subtract the level of payout before 1989 from the level of payout after 1989 for firms incorporated in Florida (i.e., treated firms). However, it could be the case that economy-wide shocks may appear simultaneously and influence corporate payouts in 1989. To account for such confounding effects, we can obtain the same difference in the level of payout from firms in a control state in which there is no such change in constituency statute during the same period (i.e., control firms). We next calculate the difference between the difference in the level of payout in Florida before

and after 1989 with the difference in the level of payout in the control state before and after 1989. The difference in the two differences represents the effect of constituency statute on corporate payouts in Florida. Given that different states adopt constituency statutes at different times, we are able to make use of a variety of treatment and control groups in our analyses.

4. Empirical findings

4.1 Baseline results

Table 3 reports the estimation of equation (1). Column (1) estimates the baseline relation between stakeholder orientation and total payout. We find that the coefficient estimate of *CS* is negative and marginal significant at the 10% level. This result suggests modest evidence that the adoption of constituency statues reduces total corporate payouts. In columns (2) and (3), we repeat the same regression analysis for dividend payments and share repurchases, respectively. The estimation results show that the adoption of constituency statutes has a significant and negative impact only on share repurchases. The negative statute effect on share repurchases is also economically meaningful. Taking the coefficient on *CS* in column (3), the adoption of constituency statutes decreases share repurchases by about 21% (=0.246/1.166), relative to the sample mean. Given that the mean firm has market value of equity of $1213.9 million in our sample, such a decrease implies reduced annual share repurchases of $2.99 (=1213.9*0.246/100) million for a mean firm.

For control variables, we find that total payout, cash dividends, and share repurchases are positively related to firm size, firm age, cash holdings, and profitability and are negatively related to firm leverage, market-to-book ratio, sales growth, and earnings volatility. These results are generally in accordance with Jagannathan et al. (2000), Kanas (2013), Lie (2005b),

DeAngelo et al. (2006), Von Eije and Megginson (2008), Grullon et al. (2011), John et al. (2011), Jacob and Jacob (2013), and Chu (2018) among others.

Taken together, these results suggest that the impact of the adoption of constituency statutes on corporate payout policy is mainly due to the negative statute effect on share repurchases, which are also consistent with our conjecture that stakeholder orientation has a more pronounced effect on share repurchases.

[Insert Table 3 Here]

4.2 Cross-sectional analyses on share repurchases

To further explore the channels of the relationship between stakeholder orientation and share repurchases, we next examine whether cross-sectional variations in firm characteristics can alter the effects of statute enactment on share repurchases. Prior studies commonly argue that the conflicts of interest between shareholders and stakeholders often become exaggerated when firms are in financial distress or are close to default (Smith and Warner 1979; Cornell and Shapiro, 1987; Gilson et al., 1990; Gilson and Vetsuypens 1993; Ayotte et al., 2013, Chu, 2017; 2018).[4] Thus, to resolve the conflict, we conjecture that the negative statue effect on share repurchases might be stronger for firms that are in financial distress or are close to default. To

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[4] Shareholders and stakeholders have different risk-taking preferences and payoff expectations. Stakeholders, who receive fixed income but bear significant downside risk, usually place a greater emphasis on long-term stability. Shareholders, however, have incentives to take greater risk at the expense of stakeholders (e.g., risk-shifting problem) because of their limited liabilities and asymmetric payoffs (Jensen and Meckling, 1976). Eisdorfer (2008) documents that the conflicts of interest between shareholders and stakeholders can become more severe when firms are in financial distress or are close to default. That is, shareholders of financially distressed firms have incentives to invest more aggressively as they capture the benefits if investments go well, whereas stakeholders (e.g., creditors) bear most of the costs if investments go poorly. In addition, Cornell and Shapiro (1987) suggest that the value of implicit claims held by stakeholders is sensitive to the firm's financial condition, since it is more likely for a financially distressed firm to default on its implicit promises. Therefore, the authors argue that stakeholders may play an important role in corporate financial policy when the probability of default increases. In line with these views, Chu (2018) uses the mergers between shareholders and lenders of the same firm as shocks that can mitigate the shareholder-creditor conflict. The author finds that the interests between shareholders and creditors are better aligned via the mergers, especially when firms are in financial distress or are close to bankruptcy. Gao et al. (2020) find that stakeholder orientation has a negative effect on cost of debt, while the effect becomes stronger for financially distressed firms.

test this, we follow previous studies and use the Altman's (1968) Z-score as a measure of financial distress (see, e.g., Purnanandam, 2008; Chen and Wang, 2012).[5] We construct *AZLOW*, which is an indicator variable equal to one if a firm's Z-score is below the sample median, and zero otherwise. A lower Z-score is associated with a higher likelihood of financial distress. We use expected default frequency (EDF) in Bharath and Shumway (2008) to measure default probability.[6] Since firms with a higher EDF are more likely to default, we construct *HIGHDP*, which is an indicator variable equal to one if a firm's EDF is above the sample median, and zero otherwise. Columns (1) and (2) of Table 4 report the estimation results by including the interactions between *CS* and *AZLOW*, and between *CS* and *HIGHDP*, respectively. We find that the coefficients on the two interaction terms are significantly negative, thus supporting our conjecture that stakeholder orientation has a stronger negative effect on share repurchases when firms are in financial distress or are close to default.

Some studies suggest that the increase in the propensity to repurchase shares, which is more shareholder-oriented, may lead to firms decreasing long-term investments in market-based assets,

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[5] The Altman's Z-score is calculated as: Z-score = $1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.999X_5$, where X_1 is working capital scaled by total assets, X_2 is retained earnings scaled by total assets, X_3 is earnings before interest and tax scaled by total assets, X_4 is market value of equity scaled by total assets, and X_5 is net sales scaled by total assets.

[6] According to Bharath and Shumway (2008) and Brogaard et al. (2017), the EDF is calculated as:

$$DD_{i,t} = \frac{\log\left(\frac{Equity_{i,t} + Debt_{i,t}}{Debt_{i,t}}\right) + (r_{i,t-1} - \frac{\sigma_{Vi,t}^2}{2}) \times T_{i,t}}{\sigma_{Vi,t} \times \sqrt{T_{i,t}}}$$

$$\sigma_{Vi,t} = \frac{Equity_{i,t}}{Equity_{i,t} + Debt_{i,t}} \times \sigma_{Ei,t} + \frac{Debt_{i,t}}{Equity_{i,t} + Debt_{i,t}} \times (0.05 + 0.25 \times \sigma_{Ei,t})$$

$$EDF_{i,t} = N(-DD_{i,t})$$

where $Equity_{i,t}$ is the market value of equity (in $millions) computed as number of shares outstanding of firm *i* times stock price at the end of year *t*; $Debt_{i,t}$ is calculated as the sum value of debt in current liabilities and one-half of long-term debt for firm *i* at the end of year *t*; $r_{i,t-1}$ is the monthly stock returns of firm *i* in year *t-1*; $\sigma_{Ei,t}$ is the volatility of stock return of firm *i* during year *t* by using the monthly return from previous year; $\sigma_{Vi,t}$ is the volatility of assets in firm *i* during year *t*; $T_{i,t}$ is set to be one year; *N(.)* is the cumulative standard normal distribution function.

and thus reduce resources to sustain customer relationships as well as product offerings (see, e.g., Srivastava et al., 1998; Bendig et al., 2018). Stakeholder orientation is argued to enhance a firm's reputation among its customers because it can contribute to a better customer relationship by attracting and retaining customers, who will be loyalty and will have strong brand recognitions (see, e.g., Brown and Dacin, 1997; Luo and Bhattacharya, 2006; Porter and Kramer, 2006). Flammer and Kacperczyk (2016) provide empirical evidence in favour of these arguments as they find that the stakeholder orientation has a stronger effect on innovation in consumer-focused industries (i.e., products are sold to individual consumers) where social engagements receive a greater emphasis. According to these, we examine whether the impact of stakeholder orientation is larger for firms in consumer-focused industries. We follow Lev et al. (2010) and construct an indicator variable, *CONSUMER*, which equals one if the firm is in "consumer goods" industry sectors, and zero otherwise.[7] Column (3) reports the estimation results. The coefficient on the interaction term between *CS* and *CONSUMER* is statistically negative, suggesting that the negative relation between stakeholder orientation and share repurchases is more pronounced for firms in consumer-focused industries.

Finally, previous studies show that firms operated in high-polluting industries are more likely to suffer compliance and litigation costs, reduced trust, decreased employee satisfaction, and brand reputation damage when compared to low-polluting industries (see e.g., Barth and McNichols, 1994; Russo and Fouts, 1997; Clarkson et al., 2004; Karpoff et al., 2005; Balachandran and Nguyen, 2018). To mitigate the externalities of corporate pollution,

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[7] Lev et al. (2010) define the "consumer goods" industries based on the following four-digit SIC codes: 0000-0999, 2000-2399, 2500-2599, 2700-2799, 2830-2869, 3000-3219, 3420-3429, 3523, 3600-3669, 3700-3719, 3751, 3850-3879, 3880-3999, 4813, 4830-4899, 5000-5079, 5090-5099, 5130-5159, 5220-5999, 7000-7299, 7400-9999. They describe these industry sectors as consumer-focused industries because firms in these industry sectors rely primarily on individual consumers to keep demand for their goods and services.

management needs to consider a balanced corporate strategy between long-term environmental protection and other business activities (see e.g., Walley and Whitehead, 1994; Hart and Ahuja, 1996; Halme and Niskanen, 2001). For example, one recent study by Balachandran and Nguyen (2018) finds that since carbon risk can cause earnings uncertainty, the probability of dividend payment decreases when the firm's carbon risk increases. Accordingly, we examine whether stakeholder orientation plays a more prominent role in share repurchases for firms in high-polluting industries. Following Flammer and Kacperczyk (2016), we construct an indicator variable, *HIGH POLLUTION*, which equals one if the firm is in high-polluting industry sectors, and zero otherwise.[8] In column (4), we find that the coefficient on the interaction term between *CS* and *HIGH POLLUTION* is negative and statistically significant at the 1% level. This result indicates that stakeholder orientation has a stronger effect on share repurchases for firms operating in high-polluting industries.

[Insert Table 4 Here]

4.3 Further analyses on share repurchases

4.3.1 Reverse causality

A related concern is that our results on the association between the adoption of constituency statutes and share repurchases might be driven by reserve causality. For example, it could be the case that the negative relation between the adoption of constituency statues and share

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[8] As noted in Flammer and Kacperczyk (2016), the seven high-polluting industry sectors are metal mining (NAICS 212), electric utilities (NAICS 2211), chemicals (NAICS 325), primary metals (NAICS 331), paper (NAICS 322), food, beverages, and tobacco (NAICS 311 and NAICS 312), and hazardous waste management (NAICS 5622 and NAICS 5629). According to the US Environmental Protection Agency (EPA), these seven high-polluting industry sectors account for 92% of all disposal and other releases of Toxic Release Inventory (TRI) chemicals (EPA 2013, p.17). We use the North American Industry Classification System (NAICS) & SIC Crosswalk to match NAICS with four-digit SIC codes of these sectors.

repurchases is due to the lawmakers' reactions to the unprecedented volume of share repurchases and creation of stakeholder-friendly policies. We apply two tests to mitigate such concern.

First, in Table 5, we use Cox proportional hazard model to examine the timing of adoption of constituency statutes at the state-of-incorporation and fiscal-year levels. We define "failure event" as the adoption of constituency statute in a given incorporated state. We start by only including the average level of share repurchases (*STATE-AVERAGE REP*) in an incorporated state as the explanatory variable in Column (1). The coefficient estimate of *State-average REP* is positive but insignificant, suggesting that state-level average share repurchases does not predict the adoption of constituency statutes. In Column (2), following Acharya et al. (2014), we control for a number of state-of-incorporation level variables, including real GDP growth (*GDP GROWTH*), unemployment rate (*UNEMPLOYEMENT RATE*), the population (*LOG(POPULATION)*), and union membership rate (*UNION MEMBERSHIP RATE*). In Column (3), we further control for political balance (*POLITICAL BALANCE*). We find that none of these variables are statistically significant, suggesting that the enactment of constituency statutes is unlike to be driven by state-average share repurchases measure and other macro-level factors across different incorporated states prior to the legal changes.

[Insert Table 5 Here]

Second, following Bertrand and Mullainathan (2003), we adopt the dynamic treatment model which examines the timing of share repurchase relative to the timing of the adoption of constituency statutes as follows:

$$REP_{ist} = \beta_0 + \beta_1 CS_{st}^{-2} + \beta_2 CS_{st}^{-1} + \beta_3 CS_{st}^0 + \beta_4 CS_{st}^{+1} + \beta_5 CS_{st}^{2+}$$

$$+\gamma Control_{ist-1} + f_i + \omega_{ht} + \varepsilon_{ist} \tag{2}$$

where we replace *CS*, the main explanatory variable in equation (1), with a set of five dummy variables: *CS⁻²*, *CS⁻¹*, *CS⁰*, *CS⁺¹*, and *CS²⁺*, which equal to one if it is: (1) two years before, (2) one year before, (3) the current year of, (4) one year after, (5) two or more years after the adoption of constituency statutes in the state of incorporation. The coefficient estimates of CS_{st}^{-2} and CS_{st}^{-1}, β_1 and β_2, are of particular interest, since their statistical significance indicate whether reverse causality is an issue or pre-treatment trends exist.

Table 6 presents the estimation results of the dynamic treatment analysis. We find that the coefficient estimates of *CS⁻²* and *CS⁻¹* are insignificant, suggesting no significant differences in pre-trends between the treated and control firms and that the parallel trends assumption is likely to hold (Roberts and Whited, 2013). Compared to the pre-treatment years, we observe a decrease in share repurchases emerges only after the passage of constituency statutes. These results lend further support that the negative statute effect on share repurchases is not driven by reverse causality.

[Insert Table 6 Here]

4.3.2 Placebo test

To check whether our main results are driven by chance, we perform a placebo test by randomizing both the assignment of treated states (with no replacement) and enactment years chosen randomly from the sample period. Specifically, we estimate the effect of pseudo-events on pseudo treated states with the full set of control variables in equation (1). We store the coefficient and standard error estimates for the placebo statute. We repeat this procedure 5,000 times to create the distribution of the placebo estimates. In unreported results, we find that the mean of placebo coefficient estimates is -0.0007 and statistically indifferent from zero. The

actual estimate for *CS* in column (3) of Table 3 is -0.246, which is smaller than the placebo estimates in 98.7% (=4,935/5,000) cases, ensuring that our results are not driven by chance.

4.3.3 Propensity score matching

So far, our primary findings indicate that the passage of constituency statutes significantly reduces share repurchases. However, one can argue that this result might be driven by the systematic differences because the choice of incorporating in states that adopt the constituency statutes might be non-random, and firms incorporated in states that pass the statutes could be fundamentally different from the rest of the firms. To ensure that our results are not attributable to the cross-sectional or time-series factors that can affect both the incorporation decision and share repurchases, we employ the propensity-score-matching strategy (Rosenbaum and Rubin, 1983), and report estimation results in Table 7.

Following Serfling (2016), we retain all observations for treated and control firms in one year prior to the passage of constituency statutes. We then use a logistic regression to estimate the probability of being a treated firm by using Tobin's Q, including the vector of control variables in the baseline model as well as state- and cohort-fixed effects. We match each treated firm in year *t-1* to a control firm (without replacement) based on the closest propensity score and exclude all observations that do not satisfy the common support condition. We end up with 940 unique pairs of matched firms. In column (1) of Panel A, we report estimation results on the logistic model used to estimate propensity scores.

We conduct two diagnostic tests to verify that the observations in the treatment and controls groups are statistically insignificant in terms of their observable characteristics. In the first test, we re-estimate the baseline logistic model restricted to the matched sample and present results in

column (2) of Panel A. Compared to the estimation results in column (1), the coefficients on all the explanatory variables are sufficiently indistinguishable. Also, most of the coefficients in column (2) are smaller in magnitude than those in column (1), suggesting that the results are not just an artefact of a decline in the number of degrees of freedom in the matched/restricted sample. In addition, the pseudo-R-squared value decreases from 0.217 in the pre-match sample to 0.010 in the post-match sample.

Our second test examines the difference in means for each observable characteristic between the treatment and matched control groups. We report summary statistics on post-match differences in Panel B of Table 7. We find that our selection of matching firms is successful since the sample mean of control variables for matched treated and control firms are not significantly different. Overall, our diagnostic test results indicate that propensity score matching removes observable differences other than the difference in the passage of constituency statutes between the treatment and control groups. Hence, there is the evidence that any difference in share repurchases between the two groups is due to the passage of constituency statutes. Finally, in Panel C of Table 7, we repeat our regression analysis for share repurchases, as shown in equations (1) and (2), with the propensity-score-matched sample. We find that both the baseline regression and the dynamic test exhibit similar patterns with prior findings.

[Insert Table 7 Here]

4.3.4 Controlling for confounding legal changes

Prior studies provide some evidence in support of the significant role of a takeover possibility in share repurchases. For example, Billett and Xue (2007) and Huang (2015) find that firms are more likely to repurchase shares when they face a high takeover probability. Thus, one

potential concern is that, given that constituency statutes are originally designed as takeover provisions, and many states pass other anti-takeover provisions in the same year of adopting the statutes, our results might be driven by the effect of anti-takeover provisions rather than stakeholder orientation. To mitigate such a concern, following Karpoff and Wittry (2018), we investigate whether confounding legal changes affect our main findings on the association between stakeholder orientation and share repurchases. We report the estimation results in Table 8. We control for the effect of share acquisition laws (*CSA*), business combination laws (*BC*), poison pill laws (*PP*), and fair price laws (*FP*) by gradually including a series of indicators of these laws through columns (1) to (4), respectively.[9] To avoid multicollinearity problems, in column (5), we construct a dummy variable, *ANTI*, which is set to one if a firm's state of incorporation has adopted one of the four aforementioned anti-takeover laws, and zero otherwise. Our results show that the estimated coefficients of *CS* remain negative and significant throughout all columns in Table 8.

It is also worth noting that the effects of different sorts of anti-takeover provisions on share repurchases are different. For example, in column (4), we find that the adoption of CSA laws increases share repurchases, while the adoption of FP laws has an opposite effect. In column (5), we show that anti-takeover provisions do not have a significant impact on share repurchases. Compared to the study by Francis et al. (2010), which relies on a single sort of anti-takeover provision (the BC law) to infer the effect on payout policies, our findings highlight the importance of taking concurrent state anti-takeover laws into consideration.[10] Moreover, as our

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[9] As indicated by Karpoff and Wittry (2018), these are the most common types of anti-takeover laws that are passed over the same period as the adoption of constituency statutes. Constituency statutes in this paper refer to directors' duties laws (DD) in Karpoff and Wittry (2018).

[10] For here, we obtain negative but insignificant coefficients on *BC*. However, if we follow Francis et al. (2010) and restrain the sample to 1980-1993, qualitatively similar results can be obtained. Results are available upon request.

baseline results remain quantitatively unchanged after controlling for these concurrent legal changes, we report that it might be less of a concern that our baseline findings simply reflect the impact of constituency statutes serving as anti-takeover laws.

[Insert Table 8 Here]

4.3.5 Additional robustness checks

Table 9 presents the robustness tests. In Panel A, we base our tests on alternative subgroups and sample periods. Cremers et al. (2019) indicate that 9 out of 35 enacting states of constituency statutes expand the scope of directors' discretion only in the takeover context or change-of-control situations.[11] To address the issue that the decline in share repurchases is merely driven by the takeover-provision effect of constituency statutes, we exclude firms incorporated in these states and report results in column (1). Column (2) shows the results by treating the statute-enactment year as transition years and excluding observations in those years. Because using the extended sample period may create noise around identification of the effect of legal changes (Serfling, 2016), in column (3), we restrain the sample period to 1985-2000, which also excludes the effect of the Sarbanes-Oxley Act (SOX) and financial crisis. In column (4), we extend the sample to 1980-2016. We find that our results remain consistent in all columns.

In Panel B, we seek to address the issue of the endogenous choice of incorporation state. In column (5), we exclude firms incorporated in five states that have some incorporated firms lobbying for the enactment of constituency statutes as indicated by Karpoff and Wittry (2018).[12] One may argue that since Delaware, in which more than half of the sample firms are

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[11] These states include Iowa, Kentucky, Louisiana, Maryland, Missouri, Oregon, Rhode Island, South Dakota, and Tennessee.

[12] These states include Arizona, Indiana, Massachusetts, Minnesota, and Pennsylvania.

incorporated, has not adopted the constituency statute throughout our sample period, our results can be driven by changes in share repurchases of Delaware-incorporated firms rather than changes among treated firms. To this end, we re-estimate the baseline regression for share repurchases by excluding firms incorporated in Delaware and report results in column (6). As noted in Karpoff and Wittry (2018), the Nebraska constituency statute was repealed in 1995, and was re-enacted in 2007. We thus exclude firms incorporate in Nebraska, as shown in column (7). In column (8), we exclude firms that have ever changed incorporation states during our sample period. Our results remain robust.

In Panel C, we consider several alternative model specifications. In column (9), we employ the coding of constituency statutes following Karpoff and Wittry (2018), which is slightly different from the version we obtain from Flammer and Kacperczyk (2016). In column (10), we cluster robust standard errors at both the state-of-incorporation level and year level. In column (11), we include firm age fixed effects to control for the effect of firm life cycle on share repurchases (DeAngelo et al., 2006). In addition, it is possible that some changes in investment and financing policies following the adoption of constituency statutes may lead to a mechanical negative effect on share repurchases. For example, the passage of constituency statutes can be positively related to the R&D expenditures (Flammer and Kacperczyk, 2016), which are likely to reduce current accounting profits and consequently discourage share repurchases. To address this issue, we further control for R&D expenditures (*R&D*), acquisitions (*AQC)*, capital expenditures (*CAPX*), stock issuance (*STISSUE*), and debt issuance (*DTISSUE*) in our baseline regression

model, as shown in column (12). Again, results in columns (9)-(12) remain similar quantitatively.[13]

In Panel D, we examine the sensitivity of our results using shorter windows around the events. Throughout columns (13)-(16), we require that observations of firms incorporated in states, which have eventually adopted constituency statutes, should be in the ±2, ±3, ±5, and ±10 years around the passage of the statutes, respectively. Results show that, although sample size varies, the coefficient estimates of *CS* are still negative and significant throughout these columns.

In Panel E, we use alternative measures of share repurchases (e.g., Grullon and Michaely, 2002; 2004). In column (17), we use an alternative measure of share repurchase (*REP2*) calculated as the ratio of gross share repurchases (PRSKTC) to the market value of equity. In columns (18)-(20), we employ measures of share repurchases by using total assets, total sales, and operating cash flows as the deflator (*REP_AT*, *REP_SALE*, and *REP_OANCF*), respectively. We find our results to be robust under these conditions.

[Insert Table 9 here]

5. Conclusions

In this paper, we explore the impact of stakeholder orientation on corporate payout policy by exploiting the staggered adoption of constituency statutes across different US states. Constituency statutes expand directors' fiduciary duties to consider stakeholders and their long-

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[13] Several prior studies emphasize the importance of properly accounting for unobserved heterogeneity and of avoiding endogenous controls to alleviate the possibility of introducing additional biases into the estimation when conducting DID analysis (Angrist and Pischkem, 2009; Gormley and Matsa, 2014, 2016). To circumvent such a problem, in an untabulated analysis, we examine the effects of constituency statutes by additionally controlling for the industry-by-year-fixed effects in our baseline regression model, excluding firm-level and macro-level controls. We find that the negative effect of constituency statutes on share repurchases still holds. Also, given that share repurchases (*REP*) is censored between zero and one, we utilize a Tobit regression model to estimate the relation between the adoption of constituency statutes and share repurchases. Again, we find that our results remain robust.

term interests rather than shareholders' interests alone and thus provide the exogenous variation in stakeholder orientation. Since conflicts of interest between shareholders and stakeholders can induce excessive corporate payouts, which may result in a significant wealth transfer from stakeholders to shareholders, we conjecture a negative relation between the adoption of constituency statutes and total payout. To be more specific, compared to cash dividends that are sticky and costly to cut, share repurchases are not firm commitments and are more flexible in terms of the amount and timing of payout. We thus expect the negative statute effect to be stronger for share repurchases.

Using a differnce-in-differences methodology, we find a signifciant drop in share repurchases for firms incorporated in states that have adopted contituency statutes, while the effects of statute enactment on total payout and dividend payments are marginal and insignificant, respectively. We further show that the negative staute effect on share repurchases is stronger for firms that in financial distress or are close to default, and firms in consumer-focused and high-polluting industries. Our results on the association between the adoption of constituency statutes and share repurchases remain robust to reverse causality, various model specifications, and inclusion of other state-level antitakeover laws.

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Appendix: Variable Definition

Variables	Definition
PAYOUT_TOTAL	Total dividend payout, the ratio of the sum of (DVC+PRSTKC-ΔPSTKRV) to the market value of common equity (PRCC_F×CSHO). We multiple the original value with 100 to facilitate the interpretation of estimation results.
DIV	Cash dividend, the ratio of cash dividend (DVC) to the market value of common equity (PRCC_F×CSHO). We multiple the original value with 100 to facilitate the interpretation of estimation results.
REP	Repurchase volume, the ratio of the dollar amount of stock repurchases in a fiscal year (PRSTKC-ΔPSTKRV) to the market value of common equity (PRCC_F×CSHO). We multiple the original value with 100 to facilitate the interpretation of estimation results.
REP_AT	Repurchase volume, the ratio of the dollar amount of stock repurchases in a fiscal year (PRSTKC-ΔPSTKRV) to total assets (AT). We multiple the original value with 100 to facilitate the interpretation of estimation results.
REP2	Repurchase volume, the ratio of PRSTKC to the market value of common equity (PRCC_F×CSHO). We multiple the original value with 100 to facilitate the interpretation of estimation results.
REP_SALE	Repurchase volume, the ratio of the dollar amount of stock repurchases in a fiscal year (PRSTKC-ΔPSTKRV) to total sales (SALE). We multiple the original value with 100 to facilitate the interpretation of estimation results.
REP_OANCF	Repurchase volume, the ratio of the dollar amount of stock repurchases in a fiscal year (PRSTKC-ΔPSTKRV) to operating cash flows (OANCF after 1987 or IB-ΔACT+ΔCHE+ΔLCT-ΔDLC+DP before 1987). We multiple the original value with 100 to facilitate the interpretation of estimation results.
STATE-AVERAGE REP	The average level of share repurchases in an incorporated state.
CS	Stakeholder orientation, an indicator variable equals to one if a firm's state of incorporation has adopted Constituency Statutes (CS), and zero otherwise.
SIZE	Firm size, the natural log of total assets (AT).
LEV	Long-term leverage, the ratio of long-term debt (DLTT) to total assets (AT).
LOGAGE	Firm age, the natural log of (the current year - the first year appears in Compustat +1).
MB	Market-to-book ratio, the ratio of the market value of equity (PRCC_F×CSHO) to the book value of equity (CEQ).
SALEG	Sales growth, the growth rate of total sales from year t-1 to year t.
EARNVOL	Earnings volatility, the standard deviation of operating income before depreciation (OIBDP) divided by total assets (AT) in the prior 5 years.
CASH	Cash holdings, the ratio of cash and cash equivalents (CHE) to total assets (AT).
ROA	Return on assets, the ratio of net income (NI) to total assets (AT).
INST	Institutional ownership, the fraction of shares owned by institutional investors.
CSA	An indicator variable equals to one if a firm's state of incorporation has adopted Control Share Acquisition (CSA) laws, and zero otherwise.
BC	An indicator variable equals to one if a firm's state of incorporation has adopted Business Combination (BC) laws, and zero otherwise.

PP	An indicator variable equals to one if a firm's state of incorporation has adopted Poison Pill (PP) laws, and zero otherwise.
FP	An indicator variable equals to one if a firm's state of incorporation has adopted Fair Price (FP) laws, and zero otherwise.
ANTI	An indicator variable equals to one if a firm's state of incorporation has adopted one of the four anti-takeover laws indicated above, and zero otherwise.
AZLOW	An indicator equals one if Altman's (1968) Z-score is below the sample median, and zero otherwise. The Altman's Z-score is calculated as: Z-score = $1.2X1+1.4X2+3.3X3+0.6X4+0.999X5$, where X1 is working capital scaled by total assets, X2 is retained earnings scaled by total assets, X3 is earnings before interest and tax scaled by total assets, X4 is market value of equity scaled by total assets, and X5 is net sales scaled by total assets.
HIGHDP	An indicator variable equals one if a firm's expected default frequency (EDF) is above the sample median, and zero otherwise. For brivety, the detailed estimation of EDF can be found in footnote 6 of the paper.
CONSUMER	An indicator variable equals one if the firm is in "consumer goods" industry sectors, and zero otherwise. Following Lev et al. (2010), we define "consumer goods" industries based on the following four-digit SIC codes: 0000-0999, 2000-2399, 2500-2599, 2700-2799, 2830-2869, 3000-3219, 3420-3429, 3523, 3600-3669, 3700-3719, 3751, 3850-3879, 3880-3999, 4813, 4830-4899, 5000-5079, 5090-5099, 5130-5159, 5220-5999, 7000-7299, 7400-9999.
HIGH POLLUTION	An indicator variable equals one if the firm is in high-polluting industry sectors, and zero otherwise. As noted in Flammer and Kacperczyk (2016), the seven high-polluting industry sectors are metal mining (NAICS 212), electric utilities (NAICS 2211), chemicals (NAICS 325), primary metals (NAICS 331), paper (NAICS 322), food, beverages, and tobacco (NAICS 311 and NAICS 312), and hazardous waste management (NAICS 5622 and NAICS 5629). We use the North American Industry Classification System (NAICS) & SIC Crosswalk to match NAICS with four-digit SIC codes of these sectors.
GDP GROWTH	The real GDP growth for a given state and year. Source: U.S. Bureau of Economic Analysis.
UNEMPLOYMENT RATE	The unemployment rate for a given state and year. Source: U.S. Bureau of Economic Analysis.
LOG(POPULATION)	The natural log of the population for a given state and year. Source: U.S. Bureau of Economic Analysis.
UNION MEMBERSHIP RATE	Union membership rate, the ratio of unionized workers to total employees for a given state and year. Source: https://www.unionstats.com/.
POLITICAL BALANCE	The ratio of Democrat-to-Republican representatives in the Lower House (House of Representatives) for a given state and year, which is not available for the state of Nebraska, as it has a nonpartisan legislature (unicameral body) whose members are elected without party designation (Acharya et al., 2014). Source: Annual Statistical Abstracts of the U.S. Census Bureau.
R&D	R&D expenditure, the ratio of R&D expenditures (XRD) to total assets (AT).
AQC	Acquisition, the ratio of acquisition expenditures (AQC) to total assets (AT).
CAPX	Capital expenditure, the ratio of capital expenditures (CAPX) to total assets (AT).
STISSUE	Stock issuance, the ratio of the sale of common and preferred stock (SSTK) to total assets (AT).
DTISSUE	Debt issuance, the ratio of long-term debt issues (DLTIS) to total assets (AT).

Figure 1. State-by-state Adoption of the Constituency Statutes

This figure illustrates the map of state-by-state adoption of the constituency statutes by 35 states from 1984 to 2007.
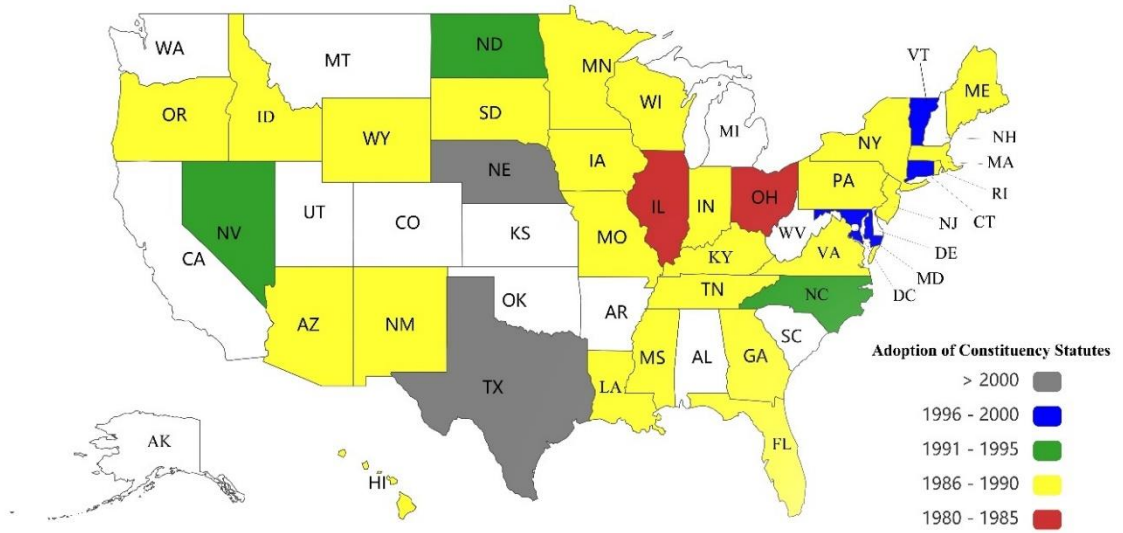
Table 1. State Constituency Statutes Legislation

This table lists in chronological order the adoption of constituency statutes by 35 states from 1984 to 2007. The list is adapted from Flammer and Kacperczyk (2016, Table 1).

Year of Adoption	State of Incorporation
1984	OH
1985	IL
1986	ME
1987	AZ
	MN
	NM
	NY
	WI
1988	ID
	LA
	TN
	VA
1989	FL
	GA
	HI
	IN
	IA
	KY
	MA
	MO
	NJ
	OR
1990	MS
	PA
	RI
	SD
	WY
1991	NV
1993	NC
	ND
1997	CT
1998	VT
1999	MD
2006	TX
2007	NE

Table 2. Summary Statistics of Main Variables

This table reports summary statistics of variables used in the main regression estimation in this paper. The full sample consists of 86,032 firm-year observations over the period 1980-2010, which is four years before the first adoption of constituency statutes in Ohio in 1984, and three years after the latest adoption of constituency statutes in Nebraska in 2007. To reduce the effects of outliers, all variables are winsorized at the 1st and 99th percentiles. Variable definitions are provided in the Appendix.

	Obs.	Mean	SD	P25	Median	P75
PAYOUT_TOTAL	86,032	2.188	5.839	0.000	0.353	3.152
DIV	86,032	0.929	1.784	0.000	0.000	1.333
REP	86,032	1.166	5.105	0.000	0.000	0.849
CS	86,032	0.238	0.426	0.000	0.000	0.000
SIZE	86,032	5.157	1.941	3.755	5.024	6.427
LEV	86,032	0.217	0.197	0.040	0.187	0.337
LOGAGE	86,032	2.301	0.845	1.609	2.398	2.996
MB	86,032	2.736	3.898	1.078	1.815	3.155
SALEG	86,032	0.084	0.331	-0.049	0.056	0.190
EARNVOL	86,032	0.069	0.070	0.028	0.050	0.085
CASH	86,032	0.167	0.200	0.025	0.083	0.237
ROA	86,032	-0.010	0.214	-0.015	0.040	0.082
INST	86,032	0.288	0.299	0.000	0.192	0.514

Table 3. Stakeholder Orientation and Corporate Payouts

This table estimates the association between stakeholder orientation and corporate payouts based on a sample of 86,032 firm-year observations from 1980 to 2010. In column (1), the dependent variable is *PAYOUT_TOTAL*, which is the ratio of the sum value of cash dividend and share repurchases (DVC+PRSTKC-ΔPSTKRV) to the market value of common equity (PRCC_F×CSHO). In column (2), the dependent variable is *DIV*, which is the ratio of cash dividend (DVC) to the market value of common equity (PRCC_F×CSHO). In column (3), the dependent variable is *REP*, which is the ratio of the dollar amount of stock repurchases in a fiscal year (PRSTKC-ΔPSTKRV) to the market value of common equity (PRCC_F×CSHO). To facilitate the interpretation of estimation results, we multiple the original value of all three payout measures with 100. The main independent variable is *CS*, an indicator variable equal to one if a firm's state of incorporation has adopted a constituency statute, and zero otherwise. All regressions control for firm and state-of-headquarter-by-year fixed effects. Robust standard errors are clustered at the state-of-incorporation level and are reported in parentheses. Definitions of all variables are provided in the Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	PAYOUT_TOTAL	DIV	REP
	(1)	(2)	(3)
CS	-0.162*	0.091	-0.246***
	(0.086)	(0.065)	(0.077)
SIZE	0.807***	0.197***	0.596***
	(0.048)	(0.015)	(0.043)
LEV	-3.868***	-0.806***	-2.944***
	(0.158)	(0.053)	(0.140)
LOGAGE	0.534***	0.288***	0.199***
	(0.071)	(0.031)	(0.071)
MB	-0.027***	-0.007***	-0.018***
	(0.005)	(0.002)	(0.005)
SALEG	-0.499***	-0.070***	-0.383***
	(0.071)	(0.013)	(0.062)
EARNVOL	-1.130*	-0.331**	-0.877
	(0.672)	(0.140)	(0.563)
CASH	2.444***	0.366***	1.781***
	(0.136)	(0.052)	(0.123)
ROA	1.121***	0.015	1.152***
	(0.179)	(0.021)	(0.163)
INST	-0.094	-0.312***	0.340***
	(0.108)	(0.038)	(0.117)
Firm FE	Y	Y	Y
State*Year FE	Y	Y	Y
N	86,032	86,032	86,032
Adj-R^2	0.165	0.584	0.092

Table 4. Cross-sectional Analyses

This table explores cross-sectional differences of the effect of stakeholder orientation on share repurchase. The dependent variable is *REP*, which is the ratio of the dollar amount of stock repurchases in a fiscal year (PRSTKC-ΔPSTKRV) to the market value of common equity (PRCC_F×CSHO). The main independent variable is *CS*, an indicator variable equal to one if a firm's state of incorporation has adopted a constituency statute, and zero otherwise. In column (1), we examine whether the negative statute effect on share repurchases is stronger for financially distressed firms. In column (2), we examine whether the negative statute effect on share repurchases is stronger for firms that are close to default. In columns (3) and (4), we examine whether the negative statute effects are stronger for firms operating in consumer-focused and high-polluting industries, respectively. All regressions control for firm and state-of-headquarter-by-year fixed effects. Robust standard errors are clustered at the state-of-incorporation level and are reported in parentheses. Definitions of all variables are provided in the Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	REP			
	(1)	(2)	(3)	(4)
CS	-0.184**	-0.102	-0.177	-0.055
	(0.084)	(0.146)	(0.109)	(0.125)
*CS*AZLOW*	-0.229**			
	(0.111)			
*CS*HIGHDP*		-0.219*		
		(0.124)		
*CS*CONSUMER*			-0.529*	
			(0.271)	
*CS*HIGH POLLUTION*				-0.437***
				(0.159)
AZLOW	0.124**			
	(0.054)			
HIGHDP		0.194***		
		(0.055)		
Controls	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y
State*Year FE	Y	Y	Y	Y
N	83,856	49,543	86,032	86,032
Adj_R2	0.101	0.111	0.100	0.100

Table 5. Determinants of Adoption of Constituency Statutes

This table reports the results from a Cox proportional hazard model where the "failure event" is the adoption of a constituency statute in an incorporated state (i.e., once an incorporated state adopts the constituency statute, it drops from the sample). Given that the latest year of adoption of constituency statutes is 2007 in Nebraska, the sample period of this test is from 1980 to 2007. In column (1), we start by only including the average level of share repurchases (*STATE-AVERAGE REP*) in an incorporated state as the explanatory variable. In column (2), we control for a number of state-of-incorporation level variables, including real GDP growth (*GDP GROWTH*), unemployment rate (*UNEMPLOYEMENT RATE*), the population (*LOG(POPULATION)*), and union membership rate (*UNION MEMBERSHIP RATE*).We further control for political balance in column (3). All explanatory variables are lagged by one year. Robust standard errors are clustered at the state-of-incorporation level are reported in parentheses. Definitions of all variables are provided in the Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	CS=1		
	(1)	(2)	(3)
STATE-AVERAGE REP	0.603	0.672	0.604
	(0.519)	(0.497)	(0.485)
GDP GROWTH		3.628	4.192
		(4.157)	(4.229)
UNEMPLOYMENT RATE		0.071	0.098
		(0.094)	(0.112)
LOG(POPULATION)		0.198	0.176
		(0.163)	(0.161)
UNION MEMBERSHIP RATE		0.002	0.000
		(0.027)	(0.028)
POLITICAL BALANCE			-0.046
			(0.063)
N	810	810	778
Adj_R^2	0.002	0.012	0.012

Table 6. Dynamics of Treatment Effect

This table examines the pre-treatment trends between the treated and control group. The regression model is presented in equation (2). The dependent variable is *REP*, which is the ratio of the dollar amount of stock repurchases in a fiscal year (PRSTKC-ΔPSTKRV) to the market value of common equity (PRCC_F×CSHO). CS^{-2} is an indicator variable equal to one if it is two years before the enactment of constituency statutes, and zero otherwise. CS^{-1} is an indicator variable equal to one if it is one year before the enactment of constituency statutes, and zero otherwise. CS^{0} is an indicator variable equal to one if it is the enactment year of constituency statutes, and zero otherwise. CS^{+1} is an indicator variable equal to one if it is the one year after the enactment of constituency statutes, and zero otherwise. CS^{2+} is an indicator variable equal to one if it is two or more years after the enactment of constituency statutes, and zero otherwise. All regressions control for firm and state-of-headquarter-by-year fixed effects. Robust standard errors are clustered at the state-of-incorporation level and are reported in parentheses. Definitions of all variables are provided in the Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	REP
	(1)
CS^{-2}	-0.184
	(0.150)
CS^{-1}	0.110
	(0.181)
CS^{0}	-0.461***
	(0.129)
CS^{+1}	0.166
	(0.198)
CS^{2+}	-0.276***
	(0.088)
Controls	Y
Firm FE	Y
State*Year FE	Y
N	86,032
Adj_R^2	0.092

Table 7. Estimation Based on Propensity Score Matching

This table presents statistics of post-match differences in propensity score matching. Panel A shows parameter estimates from the logistic regression model used to estimate propensity scores for firms in the treatment and control groups. In Panel B, columns (1) and (2) report sample average of firm characteristics in the treated and control groups, respectively. Columns (3) and (4) show the univariate comparisons of firm characteristics and the corresponding t-statistics, respectively. Panel C reports estimation based on the propensity-score-matched sample. The dependent variable is *REP*, which is the ratio of the dollar amount of stock repurchases in a fiscal year (PRSTKC-ΔPSTKRV) to the market value of common equity (PRCC_F×CSHO). The main independent variable is *CS*, an indicator variable equal to one if a firm's state of incorporation has adopted a constituency statute, and zero otherwise. All regressions control for firm and state-of-headquarter-by-year fixed effects. Robust standard errors are clustered at the state-of-incorporation level and are reported in parentheses. Definitions of all variables are provided in the Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Pre-matching regression and post-matching diagnostic regression		
	Pre-matching	Post-matching
	(1)	(2)
SIZE	-0.135***	-0.001
	(0.022)	(0.034)
LEV	-0.208	-0.170
	(0.174)	(0.296)
LOGAGE	0.202***	0.025
	(0.047)	(0.074)
MB	0.013	-0.004
	(0.008)	(0.017)
SALEG	0.043	0.099
	(0.093)	(0.173)
EARNVOL	-0.666	0.470
	(0.553)	(0.983)
CASH	-0.613***	-0.315
	(0.215)	(0.346)
ROA	0.465***	-0.345
	(0.180)	(0.444)
INST	0.431**	0.089
	(0.171)	(0.248)
Cohort FE	Y	Y
State FE	Y	Y
N	46,087	1,880
Pseudo_R^2	0.217	0.010

Panel B: Post-match differences				
	Treated Group (N=940)	Control Group (N=940)	Difference	t-stat
	(1)	(2)	(3)	(4)
SIZE	4.893	4.814	0.080	0.76
LEV	0.240	0.240	0.000	-0.02
LOGAGE	2.264	2.258	0.007	0.16

MB	2.397	2.411	-0.014	-0.09
SALEG	0.084	0.078	0.006	0.37
EARNVOL	0.061	0.060	0.000	0.05
CASH	0.127	0.131	-0.004	-0.46
ROA	0.026	0.029	-0.003	-0.44
INST	0.201	0.201	0.000	0.01

Panel C: Estimation based on the propensity-score-matched sample

	REP	
	(1)	(2)
CS	-0.331***	
	(0.098)	
CS^{-2}		-0.101
		(0.196)
CS^{-1}		0.254
		(0.225)
CS^{0}		-0.624***
		(0.225)
CS^{+1}		0.233
		(0.203)
CS^{2+}		-0.319***
		(0.100)
Control	Y	Y
Firm FE	Y	Y
State*Year FE	Y	Y
N	24,574	24,574
Adj_R^2	0.076	0.076

Table 8. Controlling for Confounding Events

This table estimates the effect of stakeholder orientation on share repurchases by controlling for confounding events. The dependent variable is *REP*, which is the ratio of the dollar amount of stock repurchases in a fiscal year (PRSTKC-ΔPSTKRV) to the market value of common equity (PRCC_F×CSHO). The main independent variable is *CS*, an indicator variable equal to one if a firm's state of incorporation has adopted a constituency statute, and zero otherwise. In columns (1)-(4), we control for the effect of share acquisition laws (*CSA*), business combination laws (*BC*), poison pill laws (*PP*), and fair price laws (*FP*) by gradually including a series of indicators of these laws. In column (5), to avoid multicollinearity problems, we construct a dummy variable, *ANTI*, which is set to one if a firm's state of incorporation has adopted one of the four anti-takeover laws as presented in columns (1)-(4), and zero otherwise. All regressions control for firm and state-of-headquarter-by-year fixed effects. Robust standard errors are clustered at the state-of-incorporation level and are reported in parentheses. Definitions of all variables are provided in the Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

	REP				
	(1)	(2)	(3)	(4)	(5)
CS	-0.285***	-0.285***	-0.289**	-0.241**	-0.234***
	(0.100)	(0.100)	(0.121)	(0.118)	(0.081)
CSA	0.150	0.149	0.149	0.196*	
	(0.101)	(0.101)	(0.100)	(0.107)	
BC		-0.011	-0.010	0.039	
		(0.102)	(0.096)	(0.085)	
PP			0.005	0.058	
			(0.110)	(0.119)	
FP				-0.222*	
				(0.112)	
ANTI					-0.020
					(0.084)
Controls	Y	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y	Y
State*Year FE	Y	Y	Y	Y	Y
N	86,032	86,032	86,032	86,032	86,032
Adj_R2	0.093	0.093	0.093	0.093	0.093

Table 9. Robustness Checks

This table presents the robustness tests of the relation between stakeholder orientation and share repurchases. Panel A reports the estimation results based on alternative subgroups and sample periods. The dependent variable is measure of share repurchases. The main independent variable is *CS*, an indicator variable equal to one if a firm's state of incorporation has adopted a constituency statute, and zero otherwise. In column (1) we exclude firms incorporated in states where the scope of directors' discretion is expended only in the takeover context of change-of-control situations (e.g., Cremers et al., 2019). In column (2) we treat the statute-enactment year as transition years and exclude observations in these years. In column (3), we restrain the sample period between 1985 and 2000 by excluding the effect of SOX and recent financial crisis. In column (4), we use an extended sample over the period 1980-2016. Panel B reports the estimation results after considering the issue of endogenous choice of incorporation state. As in column (5), we exclude firms incorporated in five states that have some incorporated firms lobby for the enactment of constituency statutes as indicated by Karpoff and Wittry (2018). In column (6), we exclude firms incorporated in Delaware. Column (7) reports the estimation results after excluding firms incorporated in Nebraska, where the constituency statute was repealed in 1995 and re-enacted in 2007. In column (8), we exclude firms that have ever changed incorporate states during the sample period. Panel C presents estimation results with alternative model specifications. As shown in column (9), we employ the coding of constituency statute following Karpoff ans Wittry (2018). In column (10), we cluster robust standard errors at both the state-of-incorporation level and year level. In column (11), we include firm age fixed effects given the firm life cycle may also affect payout policy. We add additional controls, including R&D expenditures (*R&D*), acquisitions (*AQC*), capital expenditures (*CAPX*), stock issuance (*STISSUE*), and debt issuance (*DTISSUE*), and report results in column (12). In Panel D, we examine the sensitivity of our results using shorter windows around the events. Throughout columns (13)-(16), we require that observations of firms incorporated in states, which have eventually adopted constituency students, should be in the ±2, ±3, ±5, and ±10 years around the passage of the statutes, respectively. Panel E reports estimation results with alternative measures of share repurchases. All regressions control for firm and state-of-headquarter-by-year fixed effects. Robust standard errors are clustered at the state-of-incorporation level and are reported in parentheses. Definitions of all variables are provided in the Appendix. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Specific subgroups and alternative sample periods

	REP			
	Excluding states restricting to takeover-provisions	Excluding law enactment year observations	1985-2000	1980-2016
	(1)	(2)	(3)	(4)
CS	-0.267***	-0.187**	-0.344**	-0.265***
	(0.079)	(0.087)	(0.142)	(0.075)
Controls	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y
State*Year FE	Y	Y	Y	Y
N	81,296	83,911	47,902	97,184
Adj_R2	0.093	0.094	0.092	0.103

Panel B: Addressing endogenous choice of incorporation

	REP

	Excluding lobbying states	Excluding firms incorporated in Delaware	Excluding firms incorporated in Nebraska	Excluding firms change incorporation states
	(5)	(6)	(7)	(8)
CS	-0.265***	-0.309***	-0.234***	-0.264***
	(0.090)	(0.115)	(0.078)	(0.081)
Controls	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y
State*Year FE	Y	Y	Y	Y
N	79,386	38,973	84,945	78,481
Adj_R2	0.093	0.104	0.093	0.094

Panel C: Alternative model specifications

	REP			
	Alternative coding of constituency statutes	Two-way cluster	Firm age FE	Additional controls
	(9)	(10)	(11)	(12)
CS	-0.228***	-0.235**	-0.224***	-0.187**
	(0.080)	(0.091)	(0.078)	(0.089)
Controls	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y
State*Year FE	Y	Y	Y	Y
N	86,032	86,032	86,032	82,123
Adj_R2	0.093	0.093	0.094	0.101

Panel D: Different event windows

	REP			
	2 years around the event year	3 years around the event year	5 years around the event year	10 years around the event year
	(13)	(14)	(15)	(16)
CS	-0.341*	-0.370**	-0.288**	-0.263***
	(0.176)	(0.157)	(0.120)	(0.079)
Controls	Y	Y	Y	Y
Firm FE	Y	Y	Y	Y
State*Year FE	Y	Y	Y	Y
N	60,469	62,606	66,554	74,990
Adj_R2	0.090	0.090	0.087	0.087

Panel E: Alternative measures of share repurchase

	REP2	*REP_AT*	*REP_SALE*	*REP_OANCF*
	(17)	(18)	(19)	(20)
CS	-0.168**	-0.175**	-0.214**	-2.309**
	(0.064)	(0.074)	(0.091)	(0.941)
Controls	Y	Y	Y	Y

Firm FE	Y	Y	Y	Y
State*Year FE	Y	Y	Y	Y
N	86,032	86,174	85,977	65,153
Adj_R2	0.148	0.177	0.145	0.114