Shareholder Litigation Rights and Capital Structure

Nam H. Nguyen and Hieu V. Phan [†]

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[†] Nam H. Nguyen, nam.nguyen1@utrgv.edu, Robert C. Vackar College of Business & Entrepreneurship, University of Texas Rio Grande Valley, 1201 W University Dr, Edinburg, TX 78539, phone: (956) 278-9881; Hieu V. Phan (corresponding author), hieu_phan@uml.edu, Manning School of Business, University of Massachusetts Lowell, 72 University Avenue, Lowell, MA 01854, phone: (978) 934-2633.

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Abstract

This research exploits the staggered adoption of the universal demand (UD) laws, which impedes shareholder rights to initiate derivative lawsuits, by 23 states in the United States from 1989-2005 as a quasi-natural experiment to examine the effects of shareholder litigation rights on firm capital structure. We find that weaker shareholder litigation rights due to the adoption of UD laws lead to higher financial leverage. Furthermore, the positive relation between the adoption of UD laws and financial leverage is more pronounced for firms that are more financially constrained, better-governed firms, or firms exposed to higher shareholder litigation risk ex ante. Our evidence is consistent with the view that UD laws eases managers' concern about litigation threats and motivates them to pursue riskier corporate financial policies.

1. Introduction

In a seminal research, La Porta et al. (1998) argue that legal protection of shareholders can alleviate managerial agency problems that arise from the separation of ownership and control. Shareholder litigation can be a governance channel through which shareholders deter managers' self-serving ex ante and find remedies to the problem ex post (Kraakman, Park, and Shavell, 1993;

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Kinney, 1994; Ferris et al., 2007; Donelson and Yust, 2014). However, shareholder litigation has its dark side. In particular, shareholder litigation could be costly given the substantial legal fees and cash settlements incurred by the defendant firms. Moreover, faced with litigation risk that potentially erodes personal reputation (Liu et al., 2016) and job security, managers may pursue risk-averse strategies that negatively affect shareholder value. Chu and Zhao (2018) report that shareholder litigation reduces investment efficiency, whereas Deng et al. (2014) find that shareholder litigation harms firm reputation and increases external financing costs. Arena (2018) reports that litigation risk decreases firms' credit ratings and increases their cost of debt. Autore et al. (2014) report that firms reduce external debt financing activities following costly lawsuits. Moreover, empirical evidence indicates that, on average, the defendant firms' market value of equity decreases upon the shareholder litigation filings (Bhagat et al., 1998; Ferris et al., 2007). Since shareholder litigation risk has negative implications for both debt and equity financing, its effect on firm capital structure is unclear ex ante.

Shareholders can initiate litigation against a firm through two major forms: securities class action lawsuits and derivative lawsuits. Securities class action lawsuits are usually initiated by a group of shareholders who buy or sell a firm's shares within a specific period and suffer from a sudden stock price decline due to some alleged securities fraud. Any cash settlements resulted from the lawsuits will belong to the shareholders. Whereas the primary objective of securities class action lawsuits is to recover financial losses for shareholders directly affected by the alleged securities fraud, the goal of derivative lawsuits is presumably to push the defendant firms to improve corporate governance. In particular, a derivative lawsuit is filed by shareholders on behalf of the firm and usually alleges that officers and directors breach their fiduciary duties. Any amounts paid by the officers and directors to settle the derivative lawsuit go to the firm rather than

directly to the shareholders after paying the plaintiff's attorney fees. Ferris et al. (2007) find an increase in director turnover and board independence following derivative lawsuits, implying an improvement in corporate governance.

Before initiating a derivative lawsuit on behalf of a corporation, shareholders need to demand that the board of directors deal with the alleged misconduct. The board of directors can reject the demand or take specific actions and litigation against the wrongdoers. However, since the alleged wrongdoers usually include board members, boards of directors often reject the shareholders' demand. If the board rejects the demand, shareholders can file derivative lawsuit in court claiming that the board of directors wrongfully rejects the demand. The court usually sides with the boards of directors and dismissed the lawsuits following the business judgment rule, which is based on the assumption that directors make business decision on an informed basis, with good faith, and in the belief that their decisions are in the best interest of the corporation. To circumvent the demand requirement that hinders shareholders from initiating derivative lawsuits, shareholders may plead that it would be futile to make such a demand if they have reasonable doubt that the directors are independent and disinterested and that transaction follows business judgment (Kinney, 1994). Appel (2015) finds that shareholders prefer to argue demand futility to making a demand since courts are often reluctant to overturn demand refusal.

The following anecdotal evidence illustrates the costs of derivative lawsuits to firms:

"[On April 22, 2013] the parties to the News Corp. shareholder derivative litigation have agreed to settle the consolidated cases for $139 million… The first of the lawsuits against the News Corp. board was filed in Delaware Chancery Court in March 2011, asserting claims in connection with the company's $675 million acquisition of Shine Group, Ltd., a U.K.-based television production company owned by Elizabeth Murdoch,

daughter of News Corp. Chairman Rupert Murdoch. Elizabeth Murdoch allegedly made $250 million in the acquisition. Later complaints expanded on claims relating to the Shine Group acquisition and added extensive additional claims seeking to hold the company's directors accountable for the scandal surrounding the company's use and attempted cover-up of illegal reporting tactics of some News Corp. journalists in the U.K… **In their Third Amended Consolidated Complaint, the plaintiffs alleged that the company's board's oversight of the company's affairs represented a 'textbook example of failed corporate governance and domination by a controlling shareholder'.**"[1]

UD laws, which were adopted by 23 states in the United States over the period 1989-2005, require shareholders to obtain board approval before initiating a derivative lawsuit. Since the defendants in the derivative lawsuits usually involve board members, boards rarely grant such approval, making it more difficult for shareholders to file derivative lawsuits against corporate directors and managers for their alleged misconducts. Appel (2015) and Nguyen et al. (2018) report that the number of derivative lawsuits decreased significantly following the state adoption of UD laws, which suggests that UD laws effectively weaken shareholder litigation rights to initiate derivative lawsuits. In this research, we ask how weaker shareholder litigation rights affect the financial policies of firms incorporated in the states that adopted the UD laws. In particular, we exploit the staggered adoption of UD laws by different states, which is exogenous to firm decisions, as a quasi-natural experiment to identify the relation between shareholder litigation rights and firm capital structure.

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[1] Available at https://www.dandodiary.com/2013/04/articles/shareholders-derivative-litigation/do-insurance-to-fund-entire-largest-ever-139-million-news-corp-derivative-suit-settlement/ . Last accessed on September 15, 2018.

Shareholder litigation is costly to firms given the cash settlements and the non-productive time managers have to dedicate to the litigation process. Since cash-rich firms are more likely to be the targets of litigation (Jones, 1980; Romano, 1991), firms faced with shareholder litigation risk may decrease cash holdings to discourage shareholders from initiating litigation. Moreover, since civil litigants have junior claims should firms go bankrupt, firms can use debt financing as a deterrent against civil litigation that potentially pushes firms into bankruptcy (Spier and Sykes, 1998). Thus, to the extent that the passage of UD laws hinders shareholders from filing derivative lawsuits, thereby reducing litigation risk, firms might be motivated to reduce debt financing, hence financial leverage.

Alternatively, since managers' wealth, reputation, and job security are tied to the firm, they have an inherent interest in pursuing conservative strategies, such as reducing financial leverage, to lower their litigation risk exposure. If the adoption of UD laws decreases litigation risk, thereby easing managers' concerns, firms may be more willing to pursue risk-increasing corporate policies. Nguyen et al. (2018) report that firms decrease cash reserves while increasing investment in risk-increasing but value-enhancing projects following the state adoption of UD laws. These authors also find a positive relation between the adoption of UD laws and firm operating performance. Following the trade-off theory of capital structure, higher profitability is expected to induce firms to increase debt financing to exploit the interest tax shield benefits.

Jensen and Meckling (1976) argue that firms that are prone to the free cash flow agency problem should increase dividend and/or debt financing to mitigate the adverse effects of the agency problem. In particular, the disciplinary power of debt that subjects firms to a fixed payment schedule and exposes them to insolvency risk if they fail to honor their debt payment obligation can substitute for corporate governance. To the extent that shareholder litigation is an effective

governance mechanism, firms may increase debt financing to offset the deterioration in corporate governance due to weaker shareholder litigation rights following the adoption of UD laws. The possible opposing arguments about the relation between shareholder litigation rights and financial leverage indicates that the net effect of shareholder litigation rights on financial leverage is an empirical question.

We begin our analysis by examining the effects of the passage of UD laws on firms' financial leverage measured by either book or market leverage using the difference-in-differences (DID) approach. The DID approach allows us to compare financial leverage of a treated firm from before to after the passage of UD laws by their states of incorporation and between a treated firm affected by the UD laws and a control firm not affected by the UD laws throughout the sample period. Our regression models control for variables that have power to explain financial leverage as documented in the literature, which include firm size, market-to-book ratio, tangibility, profitability, and dividend payment dummy (e.g., Rajan and Zingales, 1995; Frank and Goyal, 2009; Serfling, 2016). Using a sample of U.S. public firms over the period 1985-2009, we find that the adoption of UD laws is positively related to financial leverage. Our finding is robust to both book and market leverage measures and is insensitive to controlling for year- and firm- or industry-fixed effects, or industry-by-year and state-by-year fixed effects. The economic effect of UD laws on firm financial leverage is non-trivial. Our estimation indicates that, holding other variables unchanged at their sample means, the adoption of UD laws leads to an increase in book (market) leverage by 0.011 (0.018) on average, which is equivalent to 5.37% (8.65%) of its sample mean.

It is possible that both firms' financial leverage and the state adoption of UD laws are correlated with omitted state-level variables, such as economic conditions, which indicates the

need to control for state-specific factors. We address this concern by controlling for state GDP per capita and GDP growth rate in our analysis, but our results hold. In some specifications, we further control for state-fixed effects but our finding is qualitatively similar.

The DID approach is grounded on the premise that absent the passage of UD laws, the financial leverage of the treated and control firms should evolve in a similar way (i.e., the parallel assumption). If the treated and control firms' are systematically different and their financial leverage evolve in different ways even in the absence of the passage of UD laws, our documented results would be invalid. To ensure that our results capture the effect of the adoption of UD laws rather than the systematic differences between the treated and control firms, we use the propensity score matching (PSM) approach to identify control firms that are similar to the treated firms along several observable dimensions then rerun the DID analysis with the propensity score-matched sample. We find that the results persist.

One may concern that both firms' financial leverage and state adoption of UD laws follow time trends, implying a spurious rather than a causal relation between the two. Intuitively, if time trend drives the relation between the two, we should also observe an increase in financial leverage before the adoption of UD laws. To explore this possibility, we employ a dynamic model to examine the timing of the relation between UD laws adoption and financial leverage. We find that financial leverage increases only after the adoption of UD laws, which rules out the possibility that our finding is due to time trends.

Financially constrained firms typically have insufficient internally generated cash flow and limited access to external debt markets. Since shareholder litigation may result in cash settlement that reduces the cash available to meet debt payment obligation, it is likely to exacerbate financial

constraints and exert downward pressure on firm financial leverage. To the extent that the passage of UD laws reduces the shareholder litigation risk and motivates firms to increase debt financing, we expect the effect of UD laws adoption on financial leverage to be more pronounced for financially constrained firms. We examine the relation between UD law adoption and financial leverage for firms sorted on their degrees of financial constraints measured by S&P long-term credit ratings, dividend payment, Whited-Wu (WW) index (Whited and Wu, 2006), or size-age (SA) index (Hadlock and Pierce, 2010). Consistent with our expectation, we find a positive relation between the adoption of UD laws and leverage of financially constrained firms. However, the relation between UD laws and financial leverage is either negative or statistically insignificant for financially unconstrained firms.

If UD laws undermines the governance power of shareholder litigation, poorly governed firms, which are likely to suffer from weaker shareholder rights, may substitute shareholder litigation rights with debt as an alternative governance mechanism (Shleifer and Vishny, 1997). Alternatively, firms with good corporate governance tend to take more risk (John, Litov, and Yeung, 2008), implying that the effect of the adoption of UD laws on financial leverage could be stronger for well-governed firms. We run the financial leverage regressions with the interactions between UD laws and corporate governance measures, proxied by institutional ownership and BCF index (Bebchuk, Cohen, and Ferrell, 2009), and find that the effect of the passage of UD laws on financial leverage is more pronounced for firms with good corporate governance. Our evidence is consistent with the view that firms are willing to take more financial risk following the adoption of UD laws.

Although the state adoption of UD laws is exogenous, firms are likely to select the states of incorporation that serve their interest. Indeed, many firms choose to incorporate in Delaware to

benefit from its corporation-friendly laws and tax structure (Daines, 2001), which raises a concern that our finding is confounded by the Delaware effect. To alleviate this self-selection bias concern, we exclude firms incorporated in Delaware from our sample and rerun the financial leverage regressions, but our results continue to hold.

We note that during our sample period, some states adopted other laws and regulations, such as the Business Combinations laws (BC laws) and Poison Pill legislation, which might affect firm financial leverage. The Private Securities Litigation Reform Act of 1995 (PSLRA), which impedes shareholders from initiating lawsuits, was also adopted during our sample period. To alleviate a concern that the adoption of these laws and regulations may confound our results, we control for the adoption of these laws and regulations in our analysis but our findings are essentially unchanged. We further consider a possibility that as UD laws weaken shareholder litigation rights, shareholders may choose to file securities class action lawsuits instead. To address this concern, we control for the annual number of securities class action lawsuits in the firms' states of incorporation in the analysis but our results are insensitive to this control.

Our research adds to the literature in three important ways. First, our research contributes to the capital structure literature. To the best of our knowledge, our study is the first that demonstrates the causal relation between shareholder litigation risk and capital structure, a major corporate financial policy. Second, our study contributes to a growing stream of literature that examines the relations between shareholder litigation and corporate policies (e.g. Lin, Liu and Manso, 2017; Boone, Fich and Griffin, 2018; Bourveau et al., 2018; Chu and Zhao, 2018; Ni and Yin, 2018). Although shareholder litigation is considered as a governance mechanism, its governance efficiency remains a subject of debate in the literature. Our research provides new evidence of the dark side of shareholder litigation to the debate. Third, Nguyen et al. (2018) point

out that policy makers have recently introduced a series of legal reforms, such as the Lawsuit Abuse Reduction Act of 2017 and the Fairness in Class Action Litigation Act of 2017, to impose mandatory sanctions for frivolous legal claims that harm business operation. Our research provides new empirical evidence that helps policy makers to make informed decision on shareholder litigation reforms. Our research results also have important implications for managers in making financial decisions and investors in considering the effects of shareholder litigation, particularly derivative lawsuits.

The rest of the paper proceeds as follows. Section 2 develops testable hypotheses. We describe the sample and variable construction in Section 3. Section 4 presents the empirical models, estimation results, and discussions. Section 5 provides robustness checks and Section 6 concludes the paper.

2. Hypotheses Development

Shareholder litigation is costly to firms. Cornerstone Research reports that the median cash settlement amount for a derivative lawsuit is $8.3 million while the average (total) settlement size of a litigation lawsuit is $37.9 million ($3 billion) in 2015.[2] Besides its direct costs, shareholder litigation is harmful to firm reputation (Deng et al., 2014). Jones (1980) and Romano (1991) point out that cash-rich firms are more likely to be the targets of shareholder litigation due to their payment ability. Faced with shareholder litigation risk, firms may reduce cash holdings to discourage shareholder litigation. Moreover, Spier and Sykes (1998) argue that firms can use debt financing to mitigate the risk of civil litigation that potentially forces firms into bankruptcy. Since

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[2] Available at https://www.cornerstone.com/Publications/Press-Releases/Securities-Class-Action-Settlements-at-Highest-Since-2010. Last accessed on September 15, 2018.

civil litigants have junior claims in bankruptcy, debt financing can reduce both the settlement amounts and the probability of civil litigation against the firms. Thus, to the extent that the passage of UD laws impedes shareholders from filing derivative lawsuits, thereby reducing shareholder litigation risk, firms could be motivated to reduce debt financing, hence financial leverage. Following this argument, we state our first testable hypothesis as follows:

H1.a: The adoption of UD laws leads to a decrease in firm financial leverage.

Since managers' wealth, reputation, and job security are tied to the firms, they have an inherent interest in following conservative corporate strategies, such as reducing financial leverage and investment risk while increasing cash holdings, to lower their litigation risk exposure. To the extent that the adoption of UD laws decreases litigation risk, easing managers' litigation concerns, managers may be willing to pursue risk-increasing corporate policies. Consistent with this argument, Nguyen et al. (2018) find that firms decrease cash reserves while increasing investment in risk-increasing but value-enhancing projects following the state adoption of UD laws. These authors find that the value of cash to shareholders increases and investment efficiency improves following the adoption of UD laws. From the perspective of the trade-off theory of capital structure, higher firm profitability lowers financial distress and insolvency risk while increasing the interest tax shield benefits of debt financing. These arguments imply that lower shareholder litigation risk following the passage of UD laws will ease managers' litigation concern and motivate them to take riskier financial policies, such as increasing financial leverage.

Firms that are prone to the free cash flow agency problem are advised to increase dividend and/or debt financing to mitigate the adverse effects of the agency problem (Jensen and Meckling, 1976). In particular, debt subjects the borrowing firms to a fixed payment schedule and exposes them to possible bankruptcy if they fail to honor their debt payment obligations. Thus, the

disciplinary power of debt can mitigate managerial discretion and make firms operate more efficiently. Put it in a different way, debt can substitute for other corporate governance devices in disciplining managers. To the extent that shareholder litigation is an effective corporate governance mechanism, firms may choose to increase debt financing to offset weaker shareholder litigation rights following the passage of UD laws. These arguments suggest a positive relation between UD laws and financial leverage due to the substitution effect between debt and shareholder litigation as a governance mechanism. The foregoing discussions lead to our alternative hypothesis as follows:

H1.b: The adoption of UD laws leads to an increase in firm financial leverage.

The opposing arguments about the relation between shareholder litigation rights and financial leverage indicates that the net effect of UD laws on financial leverage is an empirical question.

3. Sample and Variables Description

Our sample includes all U.S. public firms from the Compustat database for the period 1985-2009. The sample period begins 4 years before the first state adopted UD laws and ends 4 years after the last state adopted UD laws. We exclude firms from the utility and financial industries (Standard Industrial Classification (SIC) codes from 4900–4999 and 6000-6999, respectively) since these industries are highly regulated and their capital structure may have a different meaning. We further exclude firm-year observations with negative book value of equity.[3] Finally, we winsorize continuous variables at their 1st and 99th percentiles to avoid the effect of outliers on the analysis results. Our final sample includes 103,477 firm-year observations of 12,165 unique firms.

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[3] We note that Appel (2015) does not impose this filter in his study.

Table 1 presents the timeline of UD law adoptions by states. During the period 1989-2005, 23 U.S. states adopted the UD laws. Georgia and Michigan are the first states that adopted the UD law in 1989 while Rhode Island and South Dakota are the last one that adopted the UD laws in 2005. A majority of firms affected by the UD laws were incorporated in Florida, Georgia, Texas, Pennsylvania, Virginia, Michigan, and Wisconsin.

[Insert Table 1 about here]

We report the summary statistics of the sample in Table 2. *UD law* is an indicator variable that takes a value of 1 for the years in which UD law is effective in a firm's state of incorporation, and 0 otherwise. *Book Leverage* is the ratio of the sum of long-term debt and debt in current liabilities to the book value of assets. *Market Leverage* is the ratio of the sum of long-term debt and debt in current liabilities to the market value of assets. *Size* is measured as the natural logarithm of the book value of assets. *Market-to-book* is defined as the market value of assets divided by the book value of assets. *Profitability* is the ratio of income before extraordinary items including depreciation and amortization and the book value of assets. *Tangibility* is measured as the ratio of property, plant, and equipment to the book value of assets. *Dividend dummy* is an indicator variable that takes a value of 1 if a firm pays a common dividend in a given year, and 0 otherwise. *Modified Z-Score* is calculated as 1.2*(WCAP/AT) + 1.4*(RE/AT) + 3.3*(EBIT/AT) + (SALE/AT). Appendix A provides the definitions of the variables. The descriptive statistics reported in Table 2 indicate that the mean of UD law is 0.092 and the mean book leverage and market leverage are 0.205 and 0.208, respectively.

[Insert Table 2 about here]

4. Empirical Models, Results, and Discussions

4.1. UD Laws and Capital Structure – Baseline Regressions

We employ the difference-in-differences (DID) approach to examine the effect of UD laws adoption on corporate capital structure. Our treatment (control) group include firms incorporated in states that have (have not) adopted the UD laws. Our leverage regression model specification is motivated by a long line of capital structure literature (e.g., Harris and Raviv, 1991; Rajan and Zingales, 1995; Frank and Goyal, 2009; Lemmon, Roberts, and Zender, 2008; Serfling, 2016) and has the following form:

$$\text{Leverage}_{ist} = \alpha + \beta * \text{UD law}_{st} + \mathbf{X}_{ist}\lambda + \text{Firm fixed effects} + \text{Year fixed effects} + \varepsilon_{ist}, \qquad (1)$$

where Leverage_{ist} is either the book leverage or market leverage of firm *i* incorporated in state *s* in year *t*. $\mathbf{X}$ is a vector of firm characteristics including firm size, market-to-book ratio, profitability, tangible assets, and dividend payout dummy. We also control for a firm's bankruptcy likelihood by including the modified Altman's z-score in our regression model (Matsa, 2010; Agrawal and Matsa, 2013). Since corporate capital structure can be correlated with unobserved firm characteristics and time-varying macroeconomic conditions, we additionally control for firm and year fixed effects in the regressions. In some models, we control for industry fixed effects instead of firm fixed effects since firms' capital structure might be correlated with other common industry factors. The definitions of the variables are provided in the Appendix.

We report the results of the book leverage regressions in Panel A of Table 3. In Column 1, we estimate the book leverage model that includes only firm and year fixed effects as control variables. In Column 2, besides firm and year fixed effects, we control for firm size, market-to-book ratio, profitability, and tangibility. Column 3 further includes modified z-score and dividend payout. The coefficients of UD laws are all positive (ranging from 0.011 to 0.013) and statistically

significant at the 1% level in all three columns. These results indicate that firms increase their book leverage after their states of incorporation adopt the UD laws. The economic effect of UD law adoption on firm capital structure is also important. The estimated coefficients of UD laws indicate that, holding other variables unchanged at their sample means, the adoption of UD laws increases firm book leverage by 0.011-0.013, which is equivalent to 5.37-6.34 percent of its sample mean.

[Insert Table 3 about here]

Our book leverage model could be subject to endogeneity concern related to omitted variables since both the UD law adoption and firm capital structure could be correlated to unobserved factors such as the economic conditions of the firms' states of incorporation. This potential endogeneity problem could bias our coefficient estimates. To address endogeneity concern, we re-estimate the book leverage model augmented with the GDP growth rate and the natural logarithm of the state GDP per capita, and report the results in Column 4 of Panel A, Table 3. The estimation results indicate that the coefficient of UD laws remains positive (0.013) and statistically significant at the 1% level. This result suggests that our finding is not sensitive to controlling for states' economic factors.

Panel B of Table 3 reports the results of market leverage regressions. Consistent with the results of the book leverage regressions, the effect of UD law adoption on market leverage is positive and highly significant. In terms of economic significance, the coefficient estimates of UD laws in Panel B indicate that market leverage increases by 0.018-0.02 or 8.65-9.62 percent of the sample mean of market leverage.

4.2. Dynamic Financial Leverage Models

It is possible that both financial leverage and the adoption of UD laws by states follow an increasing trend over time, implying that the positive relation between the two could be spurious. If the concern about the pre-treatment trends is valid, we should also observe a positive relation between UD laws and financial leverage in the year preceding the adoption of this law. To explore this possibility, we estimate the following dynamic financial leverage model:

$$\text{Leverage}_{ist} = \alpha + \beta * \text{UD laws}_s^{-1} + \beta * \text{UD laws}_s^0 + \beta * \text{UD laws}_s^1 + \beta * \text{UD laws}_s^{2+} + \mathbf{X}_{ist}\lambda + \text{Firm fixed}$$
$$\text{effects} + \text{Year fixed effects} + \varepsilon_{ist} \tag{2}$$

The dependent variable in Equation 2 is either *Book leverage* or *Market leverage. UD laws$_s^{-1}$* is an indicator variable that takes a value of 1 for the year preceding UD law adoption by the state of incorporation of a given firm, and 0 otherwise. *UD laws$_s^0$* is an indicator variable that takes a value of 1 for the year in which UD law was adopted by the state of incorporation of a given firm, and 0 otherwise. *UD laws$_s^{+1}$* is an indicator variable that takes a value of 1 for the first year after the UD law was adopted by the state of incorporation of a given firm, and 0 otherwise. *UD laws$_s^{2+}$* is an indicator variable that takes a value of 1 for two or more years after UD law was adopted by the state of incorporation of a given firm, and 0 otherwise. *X* is a vector of control variables including firm size, market-to-book ratio, profitability, tangible assets, dividend payout dummy, modified z-score, state GDP growth rate, and state GDP per capita.

Columns 1-3 and 4-6 of Table 4 report the results of dynamic book leverage and market leverage models, respectively. The estimation results indicate that the coefficients of *UD laws$_s^{-1}$* are statistically insignificant while the coefficients of *UD laws$_s^0$, UD laws$_s^1$, UD laws$_s^{2+}$* are all positive and highly significant for both the book leverage and market leverage regressions. These results imply that the increase in firm financial leverage is associated with the adoption of UD laws and

that our observed positive relationship between UD laws and financial leverage is driven by the adoption of UD laws rather than time trends.

[Insert Table 4 about here]

4.3. Propensity Score Matching (PSM) Approach

The DID approach is grounded on the parallel assumption that without the treatment, which is the UD law adoption, the capital structure of the treated and control firms will evolve in a similar way. The parallel assumption would be violated if the treatment and control firms are systematically different, and their capital structure would evolve in different ways event without the UD laws adoption. To alleviate this concern, in the next test, we use the PSM approach to identify control firms that have characteristics similar to those of the treatment firms in the year preceding the UD law adoption. Specifically, we classify firms incorporated in states that have adopted UD laws in a given year as treatment firms and firms incorporated in states that have not adopted UD laws throughout the sample period as control firms. Similar to Serfling (2016), we use a probit regression to estimate the likelihood of a firm being a treated one based on firm characteristics including firm size, profitability, asset tangibility, and market-to-book ratio. We match each treatment firm in year t-1 to a control firm in the same year, belonging to the same 3-digit SIC industry, and having the closest propensity score. Panel A of Table 5 compares the characteristics of treatment and control firms pre- and post-matching. The statistics indicate that the differences between the control and treated firms are statistically significant before matching but insignificant post matching, suggesting that the PSM is successful in identifying control firms.

[Insert Table 5 about here]

We re-estimate the financial leverage regressions using the same specification as in Column 4 of Table 3 for the propensity score-matched sample over the 7-year period centered on the UD law adoption and report the results in Panel B of Table 5. *Treatment* is an indicator variable that takes a value of 1 for the firms incorporated in a state that adopted the UD law, and 0 otherwise. *Post* is an indicator variable that takes a value of 1 for the years of and after the passage of UD law by a given state, and 0 otherwise. The estimation results indicate that the coefficients of the interaction between *treatment* and *post* are positive and statistically significant in all four columns, which corroborate our finding of an increase in financial leverage following the UD laws adoption. For robustness, we rerun our analysis using the 11-year period centered on the UD law adoption year and find virtually similar results.

5. Additional Robustness Tests

5.1. Control for Industry Fixed Effects

Since firm financial leverage could be driven by industry-wide common factors, in the first robustness check, we control for industry fixed effects instead of firm fixed effects in the book and market leverage regression models. Table 6 reports the estimation results of book leverage and market leverage regressions in Panels A and B, respectively. Consistent with our earlier findings, the estimated coefficients of UD law are all positive and statistically significant at the 1% level for both the book leverage and market leverage models, implying that our results are robust to controlling for industry fixed effects.

[Insert Table 6 about here]

5.2. Alternative Measures of Financial Leverage

In an additional analysis, we re-estimate the baseline and dynamic financial leverage regressions with alternative proxies for financial leverage, which include *Long-term book leverage* and *Long-term market leverage*. *Long-term book leverage* is the ratio of the book value of long-term debt to the book value of assets. *Long-term market leverage* is the ratio of the book value of long-term debt to the sum of long-term debt and market value of equity. Panels A and B of Table 7 report the *Long-term book leverage* and *Long-term market leverage* regressions results, respectively. We find that the coefficients of *UD laws* remain positive and statistically significant at the 5% and 1% levels, suggesting that the positive relationship between *UD law* and firm financial leverage is robust to alternative measures of financial leverage ratio.

[Insert Table 7 about here]

Panel C of Table 7 reports the results of the dynamic leverage model with *Long-term book leverage* and *Long-term market leverage* as the dependent variables in Columns 1-3 and 4-6, respectively. Consistent with the reported results in Table 4, the estimated coefficients of *UD laws^{-1}* are statistically insignificant but the coefficients of *UD laws^0*, *UD laws^{+1}*, and *UD laws^{+2}* are positive and highly significant across models, indicating that our findings are robust to alternative measures of financial leverage.

5.3. Difference-in-Difference-in-Differences (DDD) Analysis

Firms faced with greater threats of lawsuits may choose to maintain lower financial leverage that allows for more flexibility to deal with lawsuits when they arise. Consistent with the argument that UD law adoption reduces shareholder litigation risk, which motivates firms to take greater financial risk by increasing financial leverage, we expect the positive effect of UD law adoption on financial leverage to be more pronounced for firms facing higher threat of lawsuits.

We employ the DDD approach to examine the effect of UD laws on financial leverage for firms sorted on the level of litigation threat. In particular, following Francis, Philbrick, and Schipper (1994), we classify firms in the manufacturing and services industries (with 2-digit SIC codes from 20-39 and 70-89, respectively) into the high-shareholder litigation threat subgroup and firms in the remaining industries into the low-shareholder litigation threat subgroup. We then re-estimate the book and leverage regression models for each subgroup.

The estimation results reported in Table 8 indicate that the coefficients of *UD law* are positive and statistically significant at the 1% level for the high-shareholder litigation threat subgroup while the estimated coefficients of *UD law* for the low-shareholder litigation threat subgroup are statistically insignificant. This evidence is consistent with our expectation that the adoption of UD laws, which reduces litigation risk, has a more pronounced effect on financial leverage of those firms that are exposed to higher litigation risk ex ante.

[Insert Table 8 about here]

Financially constrained firms typically have limited access to external debt markets. Litigation risk may exacerbate their financial constraints and exert downward pressure on firm financial leverage. Since UD laws adoption can reduce the shareholder litigation risk and motivate firms to increase debt financing, we expect the effect of UD laws adoption on financial leverage to be more pronounced for financially constrained firms. We examine the relation between UD law adoption and financial leverage for subgroups of firms sorted on their degrees of financial constraints in our next analysis.

We use four different measures of financial constraints commonly used in the literature including S&P long-term credit ratings (Faulkender and Petersen, 2006), dividend payment

(Fazzari et al., 1998), Whited-Wu (WW) index (Whited-Wu, 2006), and size-age (SA) index (Hadlock and Pierce, 2010) to sort firms into financially constrained and unconstrained subsamples. The WW index is calculated as: WW index $= -0.091 \times$ Cash flow $- 0.062 \times$ Dividend dummy $+ 0.021 \times$ Long-term debt $- 0.044 \times$ Size $+ 0.102 \times$ Industry sales growth $- 0.035 \times$ Sales growth. *Cash flow* is the ratio of EBITDA to the book value of assets. *Dividend dummy* is an indicator variable that equals 1 if a firm pays dividend in a given year, and 0 otherwise. *Long-term debt* is the ratio of total long-term debt to the book value of assets. *Sales growth* is measured as the ratio of a firm's change in total sales from year *t*-1 to year *t* to the firm's sales in year *t*-1. *Industry sales growth* is the average sales growth of firms belonging to the same 3-digit SIC-code industry. The size-age (SA) index is defined as $-0.737 \times AT + 0.043 \times AT^2 - 0.040 \times Age$, where *AT* is the natural logarithm of inflation-adjusted book assets, and *Age* is the number of years the firm has been on Compustat. Firms without (with) long-term credit ratings are considered financially constrained (unconstrained). We define firms in the top (bottom) tercile of the SA index or the WW index as financially constrained (unconstrained). We classify non-dividend payers (dividend payers) or non-rated (rated) firms into the financially constrained (unconstrained) subgroup.

[Insert Table 9 about here]

Panel A of Table 9 reports the results of the book leverage regressions for subgroups of firms sorted on different measures of financial constraints. The estimation results indicate that the coefficients of *UD law* are positive (ranging from 0.007 to 0.016) and statistically significant for financially constrained firms across all four constraint measures. On the other hand, the coefficients of *UD law* for the financially unconstrained firms are either negative or statistically insignificant in 3 out of 4 measures of financial constraints. Panel B of Table 9 reports the results

of the market leverage regressions for subgroups of firms sorted on the degrees of financial constraints. The positive relation between the adoption of UD laws and financial leverage is more pronounced for financially constrained firms, which is consistent with the book leverage regression results.

5.4. UD Law and Financial Leverage: Excluding Firms Incorporated in Delaware

Firms tend to self-select the states of incorporation that are most beneficial for them, thus, our findings could be subject to the self-selection bias. Since many firms choose to incorporate in Delaware to benefit from its corporation-friendly laws and tax structure (Daines, 2001), one might concern that our observed positive relation between UD laws adoption and financial leverage is confounded by the Delaware effect. To alleviate this concern, we exclude firms incorporated in Delaware from our sample and rerun the financial leverage regressions. Table 10 reports the results of the book and market leverage regressions in Panels A and B, respectively, for the subsample that excludes firms incorporated in Delaware. The estimation results indicate that the coefficients of UD laws are positive and statistically significant at the 1% level in all models, indicating that our finding is not likely to be biased by the inclusion of firms incorporated in Delaware. We further rerun the dynamic financial leverage regressions for a subsample that excludes firms incorporated in Delaware. The results reported in Panel C of Table 10 indicate that our results are essentially unchanged.

[Insert Table 10 about here]

5.5. UD Laws, Financial Leverage, and Corporate Governance

Since UD law adoption can reduce shareholder litigation risk, thereby weakening the governance effect of shareholder litigation, firms may have an incentive to use debt monitoring as

a substitute governance mechanism (Shleifer and Vishny, 1997). To the extent that this proposition is valid, we expect the substitution effect to be more pronounced for firms with poor corporate governance since shareholder litigation is likely to be more important for these firms. On the other hand, if reduced threat of shareholder litigation motivates firms to take more financing risk, we expect the positive effect of UD laws adoption on financial leverage to be more pronounced for firms with better corporate governance since these firms tend to push managers to take more risk (John et al., 2008).

We rerun the financial leverage regressions while controlling for corporate governance measures including institutional ownership and the BCF index.[4] The BCF index constructed by Bebchuk, Cohen, and Ferrell (2009) is the managerial entrenchment index measuring the adoption of six important anti-takeover provisions including staggered boards, supermajority requirements for mergers, supermajority requirements for charter amendments, limits to shareholder bylaw amendments, poison pills, and golden parachutes. By construction, a larger (smaller) institutional ownership implies better (worse) corporate governance. A larger (smaller) value of BCF index indicates worse (better) corporate governance. The estimation result of market leverage regressions reported in Column 1 of Table 11 indicates that the coefficients of *UD law* is positive (0.029) and statistically significant at the 1% level.[5] Moreover, the coefficient of the stand-alone BCF index is positive and marginally significant while the coefficient of institutional ownership is negative and highly significant. Column 2 reports the results of the financial leverage regressions augmented with interactions between UD laws and corporate governance measures. We find that

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[4] Our findings are qualitatively unchanged if we use the GIM index developed by Gompers, Ishii, and Metrick (2003)

[5] The results of book leverage (unreported) are inconclusive, which could be due to smaller regression sample size.

the coefficient estimate of the interaction between UD laws and BCF index (institutional ownership) is negative (positive) and statistically significant, suggesting that firms with good corporate governance are more likely to increase financial leverage following the state adoption of UD laws. It is worth noting that our results discussed in Section 5.3 indicate that the positive relation between UD laws and leverage is more pronounced for financially constrained firms, which typically have lower managerial agency or corporate governance problem. Taken together, our evidence is consistent with the view that firms are willing to take more financing risk following the adoption of UD laws.

[Insert Table 11 about here]

Our results could be subject to other confounding effects since states adopted other laws and regulations during the sample period, such as the Business Combinations laws (BC laws) and Poison Pill legislation (PP laws), which might also affect corporate capital structure. To mitigate this concern, we rerun the financial leverage regressions while additionally controlling for the adoption of BC laws and PP laws. We define *BC laws* (*PP laws*) as an indicator variable that takes a value of 1 for a firms incorporated in a state that has passed the BC laws (PP laws) in a given year, and 0 otherwise. The estimation results reported in Table 12 indicate that the coefficients of UD Laws remain positive and significant at the 1% level, suggesting that our findings are robust to controlling for the adoption of both the BC and PP laws. In unreported analysis, we rerun the financial leverage regressions while controlling for BC Laws and PP Laws separately but the results are qualitatively unchanged.

[Insert Table 12 about here]

The Private Securities Litigation Reform Act of 1995 (PSLRA) also impedes shareholder to initiate lawsuits since it requires plaintiffs to present evidence of managers intentionally deceive shareholders. Since PSLRA was adopted during our sample period, one might concern that our estimation simply picks up the effects of this law. To alleviate this concern, we rerun financial leverage regressions that further control for the PSLRA adoption and report the results in columns 3 and 6 of Table 12. *PSLRA dummy* is an indicator that takes a value of 1 for the years in which PSLRA is effective, and 0 otherwise. The estimation results indicate that the coefficients of *UD Law* remain positive and highly significant, suggesting that our findings about the positive effects of UD Laws on financial leverage are robust to controlling for the PSLRA adoption.

Since UD laws impede shareholders from initiating derivative lawsuits, it is possible that shareholders use securities class action lawsuits as an alternative mechanism to address managerial misconduct (Nguyen et al., 2018). Cheng, Li, and Lobo (2010) report that securities class action lawsuits with institutional investors as lead plaintiffs are less likely to be dismissed and have greater settlements than those with individual lead plaintiffs. Thus, the passage of UD laws may increase the number of securities class action lawsuits, particularly those lead by institutional investors. To address the possibility that shareholders may resort to securities class action lawsuits as a substitute for derivative lawsuits, we obtain the data on securities class action lawsuits and their lead plaintiffs for the period 1996-2015 from Cornerstone Research and Stanford Law School and examine their relations with the adoption of UD laws. We do not find a significant relation between the adoption of UD laws and the number of securities class action lawsuits or the same lawsuits with institutional investors as lead plaintiffs (the results are not reported for brevity but are available from the authors). This result is inconsistent with a direct substitution between derivative lawsuits and securities class action lawsuits. We note that this result is similar to the

finding of Nguyen et al. (2018). We further rerun financial leverage regressions that control for the frequency of securities class action lawsuits measured as either the natural logarithm of the number of securities class action lawsuits or the natural logarithm of the number of securities class action lawsuits initiated by institutional investors in a state in a given year, and report the results in Panels A and B, respectively, of Table 13. The results indicate that our findings continue to hold.

[Insert Table 13 about here]

Our analyses thus far have accounted for possible unobserved state-level conditions that may correlate with both the adoption of UD laws and firm capital structure decisions by controlling for GDP growth, GDP per capita, and state-fixed effects. However, it is possible that our finding of a positive relation between the passage of UD laws and financial leverage is driven by other time-varying state-level factors unaccounted for in our analyses. To alleviate this concern, in the next robustness check, we follow Cornaggia et al. (2015) in running placebo tests based on counterfactual state adoption of UD laws. Specifically, we first obtain the distribution of the adoption of UD laws by states for each year during the sample period 1985-2009. We then randomly assign the non-adopted states (i.e., control states) into each of the UD law adoption year following the empirical distribution. We repeat the process to create the counterfactual (i.e., incorrect) treatment states and rerun financial leverage regressions. Since the placebo test counterfactually assigns non-adopted states to actual adoption years, we do not expect to observe a positive relation between the counterfactual UD laws adoption and financial leverage. The results reported in Table 14 indicate a negative relation between *UD_placebo_dummy* and financial leverage, which is inconsistent with our finding based on true UD laws adoption.

[Insert Table 14 about here]

To strengthen the statistical inference of our placebo test, we repeat the randomization process of assigning non-adopted states to UD laws adoption years 1,000 times. We then re-run financial leverage regressions using the randomly generated UD laws adoption data and save the *t*-statistic of the *UD_placebo_dummy* variable. Figure 1 shows the histogram of the *t*-statistics obtained from the book leverage and market leverage placebo regressions in Panels A and B, respectively. The results indicate that when using the counterfactual UD laws adoption data, the coefficients of the counterfactual UD law adoption are mostly negative or statistically insignificant, implying that the positive relation between UD law adoption and financial leverage is not likely to be driven by placebo effects.

[Insert Figure 1 about here]

In the final robustness check, we follow the capital structure literature and examine the effect of UD laws adoption on the change in financial leverage. Specifically, we regress the change in financial leverage on the changes in the test and other control variables. We further control for the level of financial leverage in the preceding year to account for the mean reversion possibility of financial leverage. The results reported in Table 15 indicate that the coefficients of *ΔUD Law* are all positive and statistically significant, indicating that our findings are robust to the change regression.

[Insert Table 15 about here]

6. Conclusions

We use the staggered adoption of UD laws by states over the period 1989-2005, which weakens shareholder litigation rights, to examine the relation between shareholder litigation rights and financial leverage. We find that firms increase financial leverage after the adoption of UD laws. Our finding is robust to both book and market leverage and is not sensitive to controlling for state economic conditions nor industry, firm, and year fixed effects. Our results are unlikely to be confounded by the passage of other regulations during our sample period. Moreover, the positive relation between UD laws and financial leverage is more pronounced for financial constrained firms. We investigate the possibility that firms increase debt financing as a governance device to substitute for weaker shareholder litigation rights but find little evidence supporting this argument. Overall, our evidence indicates that the passage of UD laws reduces managers' litigation risk concern, motivating them to pursue risk-increasing financial policies.

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Appendix A: Variables Definition

Variable name	Construction	Data source
Book leverage	The ratio of book value of short-term and long-term debts to book value of assets.	Compustat
Dividend dummy	An indicator equals 1 if a firm pays a common dividend in a given year, and 0 otherwise.	Compustat
Market leverage	The ratio of the book value of debt to the market value of assets.	Compustat
Market-to-book ratio	The ratio of the market value of assets to the book value of assets.	Compustat
Modified Z-Score	The modified Altman's z-score (1.2*(wcap/at) + 1.4*(re/at) + 3.3*(ebit/at) + (sale/at)).	Compustat
Profitability	the ratio of income before extraordinary items including depreciation and amortization and the total book value of assets	Compustat
Size	The natural logarithm of the book value of assets.	Compustat
Size-age index	The size-age (SA) index is defined as: $-0.737 \times AT + 0.043 \times AT^2 - 0.040 \times Age$, where AT is the natural logarithm of inflation-adjusted book assets, and Age is the number of years the firm has been on Compustat.	Compustat
State GDP Growth	The state-level GDP growth rate over the fiscal year.	
State GDP Per Capita	The natural logarithm of a state GDP per capita	

Tangibility	the ratio of property, plant, and equipment to total book value of assets	Compustat
UD law	An indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise.	
WW index	The Whited-Wu index is calculated as: WW index = −0.091 × Cash flow − 0.062 × Dividend dummy + 0.021 × Long-term debt − 0.044 × Size + 0.102 × Industry sales growth − 0.035 × Sales growth.	Compustat

Figure 1. Histogram of T-statistics in Placebo Tests

Figure 1 plots the histogram of the distribution of the *t*-statistics of the coefficient on the UD laws adoption dummy from 1,000 placebo tests. In each iteration we use the empirical distribution of the years in which UD laws were adopted and randomly assign states that never adopted UD laws into each of those years (without replacement). The red vertical line represents the true *t*-statistic from our regressions of financial leverage on the UD laws adoption dummy and firms' characteristics, state GDP growth rate, state GDP per capita, and firm and year fixed effects.

Panel A: UD laws and book leverage
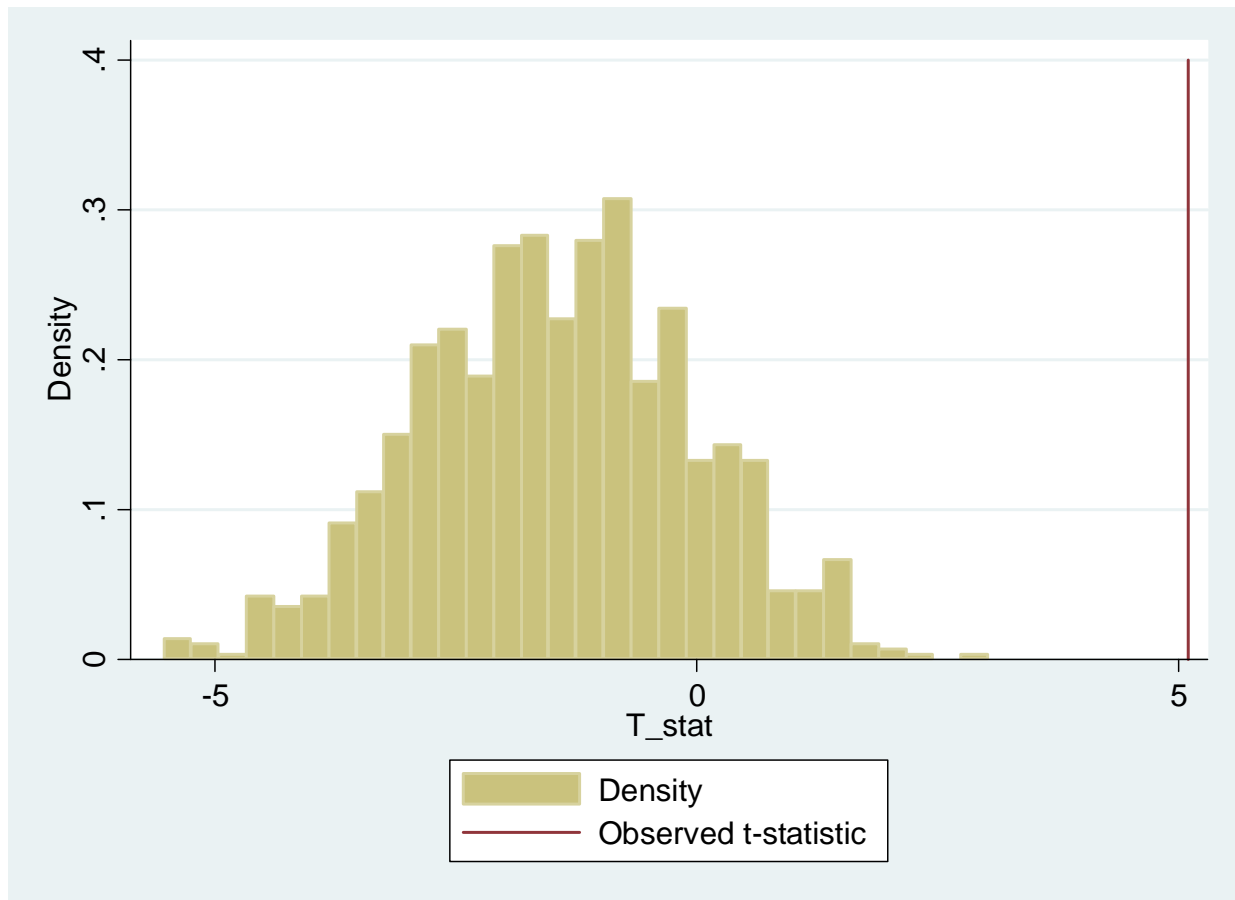
Panel B: UD Law and Market Leverage
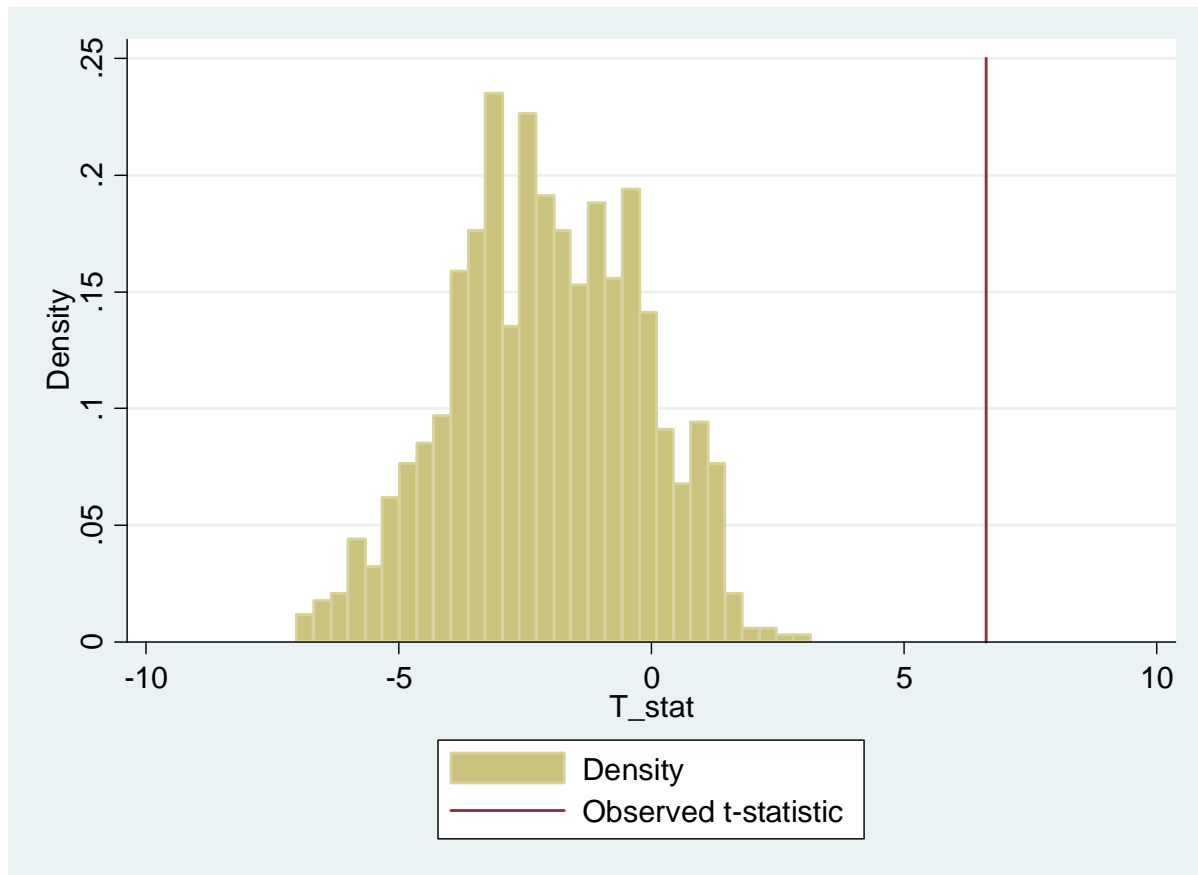
Table 1: Universal Demand (UD) Laws

Table 1 provides a list of the states that adopted UD laws over the sample period 1985-2009.

UD Law Adoption Year	State
1989	Georgia
1989	Michigan
1990	Florida
1991	Wisconsin
1992	Montana
1992	Virginia
1992	Utah
1993	New Hampshire
1993	Mississippi
1995	North Carolina
1996	Arizona
1996	Nebraska
1997	Connecticut
1997	Maine
1997	Pennsylvania
1997	Texas
1997	Wyoming
1998	Idaho
2001	Hawaii
2003	Iowa
2004	Massachusetts
2005	Rhode Island
2005	South Dakota

Table 2: Summary Statistics

Table 2 reports the descriptive statistics of the samples of financial leverage models. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. *Book Leverage* is the ratio of the book value of debt to the book value of assets. *Market Leverage* is the ratio of the book value of debt to the market value of assets. *Size* is measured as the natural logarithm of the book value of assets. *Market-to-book* is defined as the market value of assets divided by the book value of assets. *Profitability* is the ratio of income before extraordinary items including depreciation and amortization and the total book value of assets. *Tangibility* is measured as the ratio of property, plant, and equipment to total book value of assets. *Dividend dummy* is an indicator variable that takes a value of 1 if a firm pays a common dividend in a given year, and 0 otherwise. *Modified Z-Score* is calculated as (1.2*(wcap/at) + 1.4*(re/at) + 3.3*(ebit/at) + (sale/at)). Appendix A provides the definitions of the variables.

Variable	N	Mean	P25	Median	P75	Std. Dev.
UD Law	103,477	0.092	0.000	0.000	0.000	0.289
Book Leverage	103,477	0.205	0.021	0.169	0.335	0.191
Market Leverage	103,477	0.208	0.010	0.127	0.337	0.230
Size	103,477	4.553	3.012	4.446	5.992	2.158
Market-to-book	103,477	2.207	1.074	1.467	2.341	2.262
Profitability	103,477	0.027	-0.004	0.101	0.166	0.274
Tangibility	103,477	0.270	0.091	0.206	0.387	0.224
Dividend dummy	103,477	0.259	0.000	0.000	1.000	0.438
Modified Z-Score	103,477	0.753	0.390	1.706	2.634	3.797

Table 3: UD Laws and Financial Leverage: Baseline Regressions

Table 3 reports the results of the financial leverage regressions. The dependent variables in Panel A and B are *book leverage* and *market leverage*, respectively. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. *Book Leverage* is the ratio of the book value of debt to the book value of assets. *Market Leverage* is the ratio of the book value of debt to the market value of assets. *Size* is measured as the natural logarithm of the book value of assets. *Market-to-book* is defined as the market value of assets divided by the book value of assets. *Profitability* is the ratio of income before extraordinary items including depreciation and amortization and the total book value of assets. *Tangibility* is measured as the ratio of property, plant, and equipment to total book value of assets. *Dividend dummy* is an indicator variable that takes a value of 1 if a firm pays a common dividend in a given year, and 0 otherwise. *Modified Z-Score* is calculated as $(1.2*(wcap/at) + 1.4*(re/at) + 3.3*(ebit/at) + (sale/at))$. Other variables are defined in Appendix A. *T*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: UD Law and Book Leverage

	(1)	(2)	(3)	(4)
UD Law	0.011***	0.011***	0.013***	0.013***
	(3.90)	(4.04)	(5.07)	(5.10)
Size		0.036***	0.047***	0.047***
		(54.74)	(68.73)	(68.78)
Market-to-book		-0.006***	-0.006***	-0.006***
		(24.97)	(23.38)	(23.25)
Profitability		-0.080***	0.002	0.002
		(32.89)	(0.68)	(0.76)
Tangibility		0.215***	0.202***	0.202***
		(51.09)	(48.45)	(48.45)
Dividend dummy			-0.042***	-0.042***
			(24.82)	(24.79)
Modified Z-Score			-0.011***	-0.011***
			(44.28)	(44.31)
State GDP growth				-0.075***
				(3.84)
State GDP per capita				-0.013
				(0.97)
Intercept	0.193***	-0.046***	-0.097***	0.137
	(77.05)	(10.30)	(21.03)	(1.01)
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Number of observations	103,477	103,477	103,477	103,477
Adjusted R^2	0.61	0.64	0.65	0.65

Panel B: UD Law and Market Leverage

	(1)	(2)	(3)	(4)
UD Law	0.018***	0.018***	0.020***	0.021***
	(5.44)	(5.78)	(6.55)	(6.63)
Size		0.039***	0.050***	0.050***
		(50.54)	(61.39)	(61.63)
Market-to-book		-0.019***	-0.018***	-0.018***
		(64.83)	(63.41)	(63.06)
Profitability		-0.122***	-0.051***	-0.051***
		(42.20)	(14.35)	(14.13)
Tangibility		0.219***	0.208***	0.208***
		(43.98)	(42.16)	(42.18)
Dividend dummy			-0.068***	-0.068***
			(33.73)	(33.68)
Modified Z-Score			-0.009***	-0.009***
			(31.55)	(31.69)
State GDP growth				-0.266***
				(11.52)
State GDP per capita				-0.038**
				(2.34)
Intercept	0.228***	-0.012**	-0.053***	0.390**
	(75.48)	(2.19)	(9.69)	(2.45)
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Number of observations	103,477	103,477	103,477	103,477
Adjusted R^2	0.61	0.65	0.66	0.66

Table 4: UD Laws and Financial Leverage – Dynamic Models

Table 4 reports the results of the dynamic financial leverage regressions. The dependent variables in column 1-3 and 4-6 are *book leverage* and *market leverage*, respectively. *Book Leverage* is the ratio of the book value of debt to the book value of assets. *Market Leverage* is the ratio of the book value of debt to the market value of assets. *UD law^{-1}* is an indicator variable that equals 1 for the year preceding UD Law adopted by a given state, and 0 otherwise. *UD law^0* is an indicator variable that equals 1 for the year UD Law adopted by a given state, and 0 otherwise. *UD law^1* is an indicator variable that equals 1 for the first year after UD Law adopted by a given state, and 0 otherwise. *UD law^{2+}* is an indicator variable that equals 1 for two and more year after UD Law adopted by a given state, and 0 otherwise. Other variables are defined in Appendix A. *T*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Book Leverage			Market Leverage		
	(1)	(2)	(3)	(4)	(5)	(6)
UD Law $^{-1}$	0.001	0.004	0.004	-0.006	-0.003	-0.003
	(0.25)	(0.75)	(0.75)	(0.98)	(0.53)	(0.54)
UD Law ^{0}	0.013***	0.016***	0.016***	0.010*	0.013**	0.013**
	(2.67)	(3.22)	(3.27)	(1.75)	(2.22)	(2.34)
UD Law ^{1}	0.012**	0.014***	0.013***	0.010*	0.012**	0.010*
	(2.33)	(2.79)	(2.70)	(1.68)	(2.07)	(1.78)
UD Law $^{2+}$	0.010***	0.014***	0.014***	0.020***	0.023***	0.023***
	(3.45)	(4.59)	(4.65)	(5.62)	(6.48)	(6.62)
Size	0.036***	0.047***	0.047***	0.039***	0.050***	0.050***
	(54.74)	(68.73)	(68.78)	(50.56)	(61.41)	(61.65)
Market-to-book	-0.006***	-0.006***	-0.006***	-0.019***	-0.018***	-0.018***
	(24.97)	(23.38)	(23.25)	(64.82)	(63.41)	(63.06)
Profitability	-0.080***	0.002	0.002	-0.122***	-0.051***	-0.051***
	(32.89)	(0.68)	(0.76)	(42.20)	(14.33)	(14.11)
Tangibility	0.215***	0.202***	0.202***	0.219***	0.208***	0.208***
	(51.09)	(48.45)	(48.45)	(43.98)	(42.16)	(42.19)
Dividend dummy		-0.042***	-0.042***		-0.068***	-0.068***
		(24.82)	(24.80)		(33.71)	(33.67)
Modified Z-Score		-0.011***	-0.011***		-0.009***	-0.009***
		(44.28)	(44.31)		(31.56)	(31.70)
State GDP growth			-0.075***			-0.267***
			(3.83)			(11.58)
State GDP per capita			-0.014			-0.038**
			(1.00)			(2.32)
Intercept	-0.046***	-0.097***	0.14	-0.012**	-0.053***	0.387**
	(10.27)	(21.01)	(1.04)	(2.25)	(9.76)	(2.43)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Number of observations	103,477	103,477	103,477	103,477	103,477	103,477
Adjusted R^2	0.64	0.65	0.65	0.65	0.66	0.66

Table 5: UD Laws and Financial Leverage - Propensity Score Matching

Table 5 reports the results of the financial leverage regressions using propensity score-matched sample over the periods of 7 years centered by the adoption of UD law in Panel B. The dependent variables in Columns 1 and 2 are *book leverage* and *market leverage*, respectively. *Book Leverage* is the ratio of the book value of debt to the book value of assets. *Market Leverage* is the ratio of the book value of debt to the market value of assets. *Treatment* is an indicator variable that takes a value of 1 for the firms incorporated in state has adopted the UD law, and 0 otherwise. *Post* is an indicator variable that takes a value of 1 for the years after the passage of UD law in a given state, and 0 otherwise. Other variables are defined in Appendix A. *t*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses in Panel B. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Differences in Characteristics of Treatment and Control Pre-and Post- Match

Variable	Pre-Match			Post-Match		
	Control	Treatment	Difference	Control	Treatment	Difference
Firm size	4.467	4.125	0.342***	4.850	4.772	0.078
			(4.81)			(1.13)
Market-to-book ratio	2.784	2.257	0.524**	1.900	1.917	-0.017
			(1.99)			(0.44)
Profitability	0.028	0.062	-0.034**	0.039	0.036	0.003
			(2.18)			(1.17)
Tangible assets	0.274	0.326	-0.052***	0.296	0.313	-0.017
			(6.55)			(1.57)

Panel B: UD Laws and Financial Leverage - Propensity Score-Matched Samples

	Book Leverage	Market Leverage
	(1)	(2)
Treatment * Post	0.007*	0.013***
	(1.77)	(2.66)
Post	-0.005	0.001
	(1.35)	(0.07)
Size	0.084***	0.089***
	(27.99)	(24.38)
Market-to-book	-0.007***	-0.036***
	(5.56)	(23.66)
Profitability	0.047***	-0.023
	(2.95)	(1.17)
Tangibility	0.205***	0.228***
	(13.92)	(12.78)
Dividend dummy	-0.023***	-0.053***
	(4.14)	(7.94)
Modified Z-Score	-0.039***	-0.042***
	(22.07)	(19.46)

State GDP growth	-0.049	-0.199***
	(0.78)	(2.63)
State GDP per capita	-0.118**	-0.092
	(2.39)	(1.53)
Intercept	1.101**	0.911
	(2.08)	(1.42)
Firm fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Number of observations	8,420	8,420
Adjusted R^2	0.78	0.79

Table 6: UD Laws and Financial Leverage: Controlling for Industry and Year Fixed Effects

Table 6 reports the results of the financial leverage regressions. The dependent variables in Panels A and B are *book leverage* and *market leverage,* respectively. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. *Book Leverage* is the ratio of the book value of debt to the book value of assets. *Market Leverage* is the ratio of the book value of debt to the market value of assets. *Size* is measured as the natural logarithm of the book value of assets. *Market-to-book* is defined as the market value of assets divided by the book value of assets. *Profitability* is the ratio of income before extraordinary items including depreciation and amortization and the total book value of assets. *Tangibility* is measured as the ratio of property, plant, and equipment to total book value of assets. *Dividend dummy* is an indicator variable that takes a value of 1 if a firm pays a common dividend in a given year, and 0 otherwise. *Modified Z-Score* is calculated as $(1.2*(wcap/at) + 1.4*(re/at) + 3.3*(ebit/at) + (sale/at))$. Other variables are defined in Appendix A. *T*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: UD Law and Book Leverage

	(1)	(2)	(3)	(4)	(5)
UD Law	0.007***	0.006***	0.012***	0.010***	0.009***
	(3.37)	(3.14)	(6.42)	(5.27)	(4.68)
Size		0.012***	0.018***	0.019***	0.019***
		(40.38)	(57.05)	(57.23)	(57.37)
Market-to-book		-0.013***	-0.013***	-0.013***	-0.013***
		(50.22)	(49.67)	(49.60)	(48.86)
Profitability		-0.045***	0.024***	0.024***	0.024***
		(19.17)	(7.20)	(7.09)	(7.23)
Tangibility		0.211***	0.235***	0.233***	0.231***
		(73.35)	(72.94)	(72.09)	(70.89)
Dividend dummy			-0.066***	-0.066***	-0.066***
			(46.29)	(46.67)	(46.35)
Modified Z-Score			-0.007***	-0.007***	-0.007***
			(28.52)	(28.62)	(28.79)
State GDP growth				-0.078***	-0.093***
				(3.21)	(3.66)
State GDP per capita				-0.033***	-0.035***
				(8.14)	(8.67)
Intercept	0.171	0.077***	0.036	0.392	0.336**
	(0.01)	(19.62)	(0.01)	(0.01)	(1.99)
Industry fixed effects	Yes	Yes	Yes	Yes	No
Year fixed effects	Yes	Yes	Yes	Yes	No
Industry-year fixed effect	No	No	No	No	Yes
Number of observations	103,477	103,477	103,477	103,477	103,477
Adjusted R^2	0.12	0.20	0.23	0.23	0.24

Panel B: UD Law and Market Leverage

	(1)	(2)	(3)	(4)	(5)
UD Law	0.012***	0.006***	0.017***	0.016***	0.016***
	(5.17)	(2.99)	(8.09)	(7.55)	(7.23)
Size		0.011***	0.018***	0.018***	0.019***
		(30.44)	(49.52)	(49.64)	(49.97)
Market-to-book		-0.032***	-0.032***	-0.032***	-0.032***
		(107.28)	(107.22)	(106.93)	(105.20)
Profitability		-0.087***	-0.043***	-0.043***	-0.042***
		(32.33)	(11.27)	(11.26)	(10.84)
Tangibility		0.217***	0.226***	0.224***	0.222***
		(58.40)	(60.91)	(60.37)	(59.64)
Dividend dummy			-0.084***	-0.085***	-0.084***
			(51.61)	(52.11)	(51.76)
Modified Z-Score			-0.004***	-0.004***	-0.004***
			(12.75)	(12.86)	(13.33)
State GDP growth				-0.304***	-0.264***
				(10.84)	(9.05)
State GDP per capita				-0.023***	-0.024***
				(4.96)	(5.25)
Intercept	0.177	0.110	0.098	0.341	0.199
	(0.01)	(0.01)	(0.01)	(0.01)	(1.01)
Industry fixed effects	Yes	Yes	Yes	Yes	No
Year fixed effects	Yes	Yes	Yes	Yes	No
Industry-year fixed effect	No	No	No	No	Yes
Number of observations	103,477	103,477	103,477	103,477	103,477
Adjusted R^2	0.15	0.28	0.30	0.30	0.31

Table 7: UD Laws and Alternative Measures of Financial Leverage

Table 7 reports the results of the financial leverage regressions. The dependent variables in Panels A and B are *long-term book leverage* and *long-term market leverage*, respectively. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. *Long-term Book Leverage* is the ratio of the book value of long-term debt to the book value of assets. *Long-term Market Leverage* is the ratio of the book value of long-term debt to the sum of long-term debt and market value of equity. *Size* is measured as the natural logarithm of the book value of assets. *Market-to-book* is defined as the market value of assets divided by the book value of assets. *Profitability* is the ratio of income before extraordinary items including depreciation and amortization and the total book value of assets. *Tangibility* is measured as the ratio of property, plant, and equipment to total book value of assets. *Dividend dummy* is an indicator variable that takes a value of 1 if a firm pays a common dividend in a given year, and 0 otherwise. *Modified Z-Score* is calculated as $(1.2*(\text{wcap/at}) + 1.4*(\text{re/at}) + 3.3*(\text{ebit/at}) + (\text{sale/at}))$. Other variables are defined in Appendix A. *T*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: UD Laws and Long-term Book Leverage

	(1)	(2)	(3)	(4)	(5)	(6)
UD Law	0.009***	0.009***	0.011***	0.011***	0.006***	0.004**
	(3.70)	(3.95)	(4.70)	(4.75)	(3.50)	(2.24)
Size		0.035***	0.043***	0.043***	0.025***	0.025***
		(59.60)	(69.13)	(69.17)	(88.86)	(89.07)
Market-to-book		-0.004***	-0.003***	-0.003***	-0.009***	-0.009***
		(17.18)	(15.74)	(15.65)	(39.96)	(39.92)
Profitability		-0.042***	0.012***	0.013***	0.029***	0.028***
		(19.43)	(4.57)	(4.63)	(9.95)	(9.82)
Tangibility		0.168***	0.159***	0.159***	0.207***	0.205***
		(44.61)	(42.52)	(42.52)	(74.97)	(74.08)
Dividend dummy			-0.034***	-0.033***	-0.052***	-0.053***
			(21.90)	(21.88)	(42.67)	(43.07)
Modified Z-Score			-0.007***	-0.007***	-0.005***	-0.005***
			(32.74)	(32.77)	(25.45)	(25.56)
State GDP growth				-0.048***		-0.050**
				(2.73)		(2.37)
State GDP per capita				-0.014		-0.031***
				(1.09)		(8.92)
Intercept	0.146***	-0.081***	-0.115***	0.099	-0.055***	0.281***
	(65.36)	(20.18)	(27.70)	(0.82)	(14.00)	(7.40)
Firm fixed effects	Yes	Yes	Yes	Yes	No	No
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	No	No	No	No	Yes	Yes
Number of observations	103,477	103,477	103,477	103,477	103,477	103,477
Adjusted R^2	0.60	0.63	0.63	0.63	0.27	0.27

Panel B: UD Laws and Long-term Market Leverage

	(1)	(2)	(3)	(4)	(5)	(6)
UD Law	0.020***	0.020***	0.022***	0.022***	0.012***	0.011***
	(6.45)	(6.82)	(7.46)	(7.51)	(6.33)	(5.51)
Size		0.040***	0.049***	0.049***	0.024***	0.025***
		(55.52)	(63.91)	(64.11)	(72.01)	(72.18)
Market-to-book		-0.013***	-0.012***	-0.012***	-0.023***	-0.023***
		(46.84)	(45.35)	(45.03)	(84.84)	(84.56)
Profitability		-0.085***	-0.031***	-0.030***	-0.027***	-0.027***
		(31.48)	(9.13)	(8.94)	(7.61)	(7.64)
Tangibility		0.192***	0.184***	0.184***	0.220***	0.218***
		(41.50)	(39.95)	(39.96)	(65.34)	(64.65)
Dividend dummy			-0.058***	-0.057***	-0.072***	-0.072***
			(30.63)	(30.58)	(48.08)	(48.64)
Modified Z-Score			-0.007***	-0.007***	-0.003***	-0.003***
			(25.89)	(26.00)	(13.41)	(13.54)
State GDP growth				-0.222***		-0.260***
				(10.33)		(10.13)
State GDP per capita				-0.029*		-0.029***
				(1.90)		(6.86)
Intercept	0.180***	-0.068***	-0.099***	0.256*	-0.017***	0.293***
	(64.88)	(13.63)	(19.44)	(1.72)	(3.67)	(6.33)
Firm fixed effects	Yes	Yes	Yes	Yes	No	No
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	No	No	No	No	Yes	Yes
Number of observations	103,477	103,477	103,477	103,477	103,477	103,477
Adjusted R^2	0.60	0.63	0.64	0.64	0.29	0.29

Panel C: UD Laws and Alternative Measures of Financial Leverage- Falsification Tests

	Long-term Book Leverage			Long-term Market Leverage		
	(1)	(2)	(3)	(4)	(5)	(6)
UD Law [-1]	0.001	0.002	0.002	-0.005	-0.003	-0.003
	(0.06)	(0.44)	(0.46)	(0.93)	(0.54)	(0.55)
UD Law [0]	0.009**	0.011**	0.011**	0.010*	0.012**	0.012**
	(2.06)	(2.48)	(2.53)	(1.81)	(2.21)	(2.31)
UD Law [1]	0.012***	0.013***	0.013***	0.014**	0.016***	0.014***
	(2.67)	(3.03)	(2.98)	(2.54)	(2.88)	(2.61)
UD Law [2+]	0.009***	0.011***	0.011***	0.022***	0.024***	0.025***
	(3.36)	(4.20)	(4.27)	(6.64)	(7.36)	(7.46)
Size	0.035***	0.043***	0.043***	0.040***	0.049***	0.049***
	(59.60)	(69.12)	(69.16)	(55.54)	(63.93)	(64.13)
Market-to-book	-0.004***	-0.003***	-0.003***	-0.013***	-0.012***	-0.012***

	(17.18)	(15.74)	(15.65)	(46.83)	(45.35)	(45.02)
Profitability	-0.042***	0.012***	0.013***	-0.085***	-0.031***	-0.030***
	(19.43)	(4.57)	(4.63)	(31.48)	(9.12)	(8.92)
Tangibility	0.168***	0.159***	0.159***	0.192***	0.184***	0.184***
	(44.61)	(42.51)	(42.51)	(41.50)	(39.95)	(39.97)
Dividend dummy		-0.034***	-0.033***		-0.058***	-0.057***
		(21.90)	(21.88)		(30.61)	(30.57)
Modified Z-Score		-0.007***	-0.007***		-0.007***	-0.007***
		(32.73)	(32.77)		(25.91)	(26.02)
State GDP growth			-0.048***			-0.224***
			(2.71)			(10.38)
State GDP per capita			-0.014			-0.029*
			(1.11)			(1.88)
Intercept	-0.081***	-0.115***	0.10	-0.068***	-0.099***	0.253*
	(20.13)	(27.66)	(0.84)	(13.69)	(19.50)	(1.70)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	103,477	103,477	103,477	103,477	103,477	103,477
Adjusted R^2	0.63	0.63	0.63	0.63	0.64	0.64

Table 8: UD Laws and Financial Leverage – Difference-in-Difference-in-Differences

Table 8 reports the results of the financial leverage regressions for subsamples sorted on the threat of law suits. The dependent variables in Panel A and B are *book leverage* and *market leverage*, respectively. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. We classify firms in the manufacturing and services industries (i.e. 2-digit SIC code from 20-39 and 70-89, respectively) into the high threat of lawsuit group. *Size* is measured as the natural logarithm of the book value of assets. *Market-to-book* is defined as the market value of assets divided by the book value of assets. *Profitability* is the ratio of income before extraordinary items including depreciation and amortization and the total book value of assets. *Tangibility* is measured as the ratio of property, plant, and equipment to total book value of assets. *Dividend dummy* is an indicator variable that takes a value of 1 if a firm pays a common dividend in a given year, and 0 otherwise. *Modified Z-Score* is calculated as (1.2*(wcap/at) + 1.4*(re/at) + 3.3*(ebit/at) + (sale/at)). Other variables are defined in Appendix A. *T*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: UD Law, Threat of Lawsuits, and Book Leverage

	High-Litigation Threat			Low-Litigation Threat		
	(1)	(2)	(3)	(4)	(5)	(6)
UD Law	0.013***	0.016***	0.016***	0.006	0.006	0.006
	(4.17)	(5.33)	(5.40)	(1.06)	(1.20)	(1.21)
Size	0.036***	0.048***	0.048***	0.038***	0.046***	0.046***
	(46.58)	(59.72)	(59.74)	(29.28)	(34.34)	(34.43)
Market-to-book	-0.006***	-0.005***	-0.005***	-0.008***	-0.008***	-0.008***
	(21.21)	(19.68)	(19.63)	(12.65)	(12.46)	(12.34)
Profitability	-0.076***	0.006*	0.006*	-0.092***	-0.012*	-0.012
	(28.51)	(1.79)	(1.83)	(15.35)	(1.69)	(1.58)
Tangibility	0.236***	0.224***	0.224***	0.184***	0.170***	0.170***
	(44.94)	(43.11)	(43.10)	(25.64)	(23.72)	(23.74)
Dividend dummy		-0.042***	-0.042***		-0.042***	-0.042***
		(21.18)	(21.15)		(12.61)	(12.60)
Modified Z-Score		-0.011***	-0.011***		-0.011***	-0.011***
		(40.32)	(40.35)		(18.09)	(18.11)
State GDP growth			-0.040*			-0.112***
			(1.69)			(3.06)
State GDP per capita			-0.015			-0.049*
			(0.97)			(1.76)
Intercept	-0.050***	-0.108***	0.139	-0.044***	-0.068***	0.461
	(9.76)	(20.64)	(0.89)	(4.50)	(6.90)	(1.52)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	76,970	76,970	76,970	26,507	26,507	26,507

Adjusted R^2	0.63	0.64	0.64	0.64	0.64	0.64

Panel B: UD Law, Threat of Lawsuits and Market Leverage

	High Threat Industries			Low Threat Industries		
	(1)	(2)	(3)	(4)	(5)	(6)
UD Law	0.021***	0.024***	0.025***	0.009	0.009	0.008
	(5.84)	(6.80)	(7.12)	(1.35)	(1.40)	(1.18)
Size	0.038***	0.050***	0.050***	0.040***	0.049***	0.049***
	(43.39)	(53.77)	(53.95)	(24.51)	(28.88)	(29.02)
Market-to-book	-0.016***	-0.016***	-0.016***	-0.032***	-0.032***	-0.032***
	(53.74)	(52.43)	(52.27)	(40.04)	(39.77)	(39.45)
Profitability	-0.109***	-0.039***	-0.039***	-0.181***	-0.103***	-0.100***
	(35.64)	(10.37)	(10.24)	(23.90)	(11.11)	(10.80)
Tangibility	0.228***	0.218***	0.218***	0.200***	0.186***	0.186***
	(37.97)	(36.65)	(36.64)	(21.96)	(20.53)	(20.56)
Dividend dummy		-0.065***	-0.065***		-0.070***	-0.071***
		(28.74)	(28.65)		(16.85)	(16.88)
Modified Z-Score		-0.009***	-0.009***		-0.011***	-0.011***
		(29.54)	(29.71)		(13.77)	(13.80)
State GDP growth			-0.191***			-0.376***
			(7.13)			(8.14)
State GDP per capita			-0.072***			0.016
			(3.94)			(0.44)
Intercept	-0.019***	-0.067***	0.700***	0.036***	0.015	-0.164
	(3.26)	(11.18)	(3.92)	(2.90)	(1.25)	(0.43)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	76,970	76,970	76,970	26,507	26,507	26,507
Adjusted R^2	0.65	0.66	0.66	0.62	0.63	0.63

Table 9: UD Laws, Financial Constraints, and Financial Leverage

Table 9 reports the results of the financial leverage regressions for financially constrained (FC) and unconstrained (Non-FC) subgroups. The dependent variables in Panel A and B are *book leverage* and *market leverage*, respectively. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. We define firms in the top (bottom)-tercile scores on the SA index or the WW index as constrained (unconstrained). We classify non-dividend payers (dividend payers) or non-rated (rated) firms into the constrained (unconstrained) group. *Size* is measured as the natural logarithm of the book value of assets. *Market-to-book* is defined as the market value of assets divided by the book value of assets. *Profitability* is the ratio of income before extraordinary items including depreciation and amortization and the total book value of assets. *Tangibility* is measured as the ratio of property, plant, and equipment to total book value of assets. *Dividend dummy* is an indicator variable that takes a value of 1 if a firm pays a common dividend in a given year, and 0 otherwise. *Modified Z-Score* is calculated as (1.2*(wcap/at) + 1.4*(re/at) + 3.3*(ebit/at) + (sale/at)). Other variables are defined in Appendix A. *T*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: UD Law, Financial Constraints, and Book Leverage

	S&P Credit Ratings		Dividend Payout		WW Index		SA Index	
	FC	Non-FC	FC	Non-FC	FC	Non-FC	FC	Non-FC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
UD Law	0.016***	-0.026***	0.014***	0.003	0.013**	0.007*	0.010*	-0.003
	(5.59)	(4.54)	(3.64)	(0.88)	(2.14)	(1.92)	(1.75)	(0.74)
Size	0.044***	0.00	0.048***	0.023***	0.045***	0.034***	0.041***	0.032***
	(55.17)	(0.25)	(58.20)	(15.80)	(27.25)	(25.32)	(24.54)	(23.67)
Market-to-book	-0.005***	-0.009***	-0.005***	-0.007***	-0.003***	-0.006***	-0.003***	-0.004***
	(20.75)	(8.59)	(19.15)	(8.29)	(8.58)	(9.75)	(9.43)	(6.80)
Profitability	0.01	0.142***	0.010***	0.242***	0.017***	0.057***	0.006	-0.031***
	(1.57)	(8.21)	(3.15)	(17.33)	(3.93)	(4.87)	(1.60)	(2.91)
Tangibility	0.233***	-0.018*	0.231***	0.042***	0.266***	0.051***	0.258***	0.062***
	(51.92)	(1.71)	(47.57)	(5.39)	(35.79)	(6.20)	(39.11)	(7.52)
Dividend dummy	-0.037***	-0.007**			-0.045***	-0.017***	-0.049***	-0.021***
	(18.88)	(2.43)			(6.26)	(7.04)	(11.47)	(9.10)
Modified Z-Score	-0.010***	-0.078***	-0.010***	-0.100***	-0.008***	-0.056***	-0.007***	-0.047***

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	(38.38)	(43.91)	(38.30)	(63.52)	(22.78)	(48.43)	(19.25)	(47.01)
State GDP growth	-0.044**	-0.049	-0.060**	-0.056**	0.048	-0.026	0.032	-0.063***
	(2.02)	(1.39)	(2.44)	(2.05)	(1.22)	(0.92)	(0.85)	(2.24)
State GDP per capita	-0.011	-0.042	-0.049***	0.047**	-0.002	-0.045**	-0.009	-0.052**
	(0.70)	(1.60)	(2.79)	(2.48)	(0.06)	(2.11)	(0.32)	(2.52)
Intercept	0.122	0.891***	0.510***	-0.269	0.055	0.554**	0.139	0.625***
	(0.80)	(3.14)	(2.94)	(1.31)	(0.18)	(2.42)	(0.52)	(2.82)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	85,231	18,246	76,704	26,773	32,130	32,130	34,492	34,493
Adjusted R^2	0.63	0.73	0.64	0.76	0.61	0.74	0.59	0.75

Panel B: UD Law, Financial Constraints, and Market Leverage

	S&P Credit Ratings		Dividend Payout		WW Index		SA Index	
	FC	Non-FC	FC	Non-FC	FC	Non-FC	FC	Non-FC
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
UD Law	0.017***	-0.002	0.021***	0.012***	0.014**	0.018*	0.008*	0.012
	(5.04)	(0.31)	(4.72)	(3.24)	(2.12)	(1.83)	(1.80)	(0.98)
Size	0.044***	0.021***	0.048***	0.034***	0.050***	0.042***	0.045***	0.043***
	(47.17)	(9.53)	(50.24)	(19.66)	(27.28)	(9.75)	(24.73)	(10.30)
Market-to-book	-0.016***	-0.052***	-0.016***	-0.028***	-0.014***	-0.023***	-0.013***	-0.024***
	(55.16)	(39.77)	(52.30)	(27.25)	(32.25)	(10.87)	(34.65)	(12.03)
Profitability	-0.033***	-0.238***	-0.031***	-0.041**		-0.241***	-0.010**	-0.315***
	(9.31)	(10.96)	(8.06)	(2.39)	(0.01)	(4.81)	(2.36)	(6.62)
Tangibility	0.231***	0.083***	0.230***	0.087***	0.248***	0.112***	0.228***	0.136***
	(43.99)	(6.36)	(40.42)	(9.06)	(29.61)	(4.65)	(31.51)	(5.84)
Dividend dummy	-0.062***	-0.034***			-0.062***	-0.041***	-0.078***	-0.051***
	(26.88)	(9.09)			(7.69)	(6.85)	(16.65)	(8.94)
Modified Z-Score	-0.008***	-0.072***	-0.009***	-0.094***	-0.008***	-0.050***	-0.006***	-0.040***
	(27.19)	(32.25)	(26.91)	(48.59)	(18.73)	(7.49)	(15.73)	(6.12)
State GDP growth	-0.221***	-0.175***	-0.261***	-0.198***	-0.152***	-0.165***	-0.153***	-0.204***

(8.67)	(3.93)	(9.11)	(5.94)	(3.39)	(3.41)	(4.08)	(4.29)
State GDP per capita	−0.025	−0.080**	−0.063***	0.053**	0.022	−0.088*	0.009	−0.094**
	(1.38)	(2.43)	(3.03)	(2.29)	(0.62)	(1.75)	(0.31)	(1.97)
Intercept	0.27	1.243***	0.640***	−0.373	−0.199	1.019*	−0.079	1.061**
	(1.52)	(3.48)	(3.14)	(1.49)	(0.58)	(1.87)	(0.25)	(2.06)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	85,231	18,246	76,704	26,773	32,130	32,130	34,492	34,493
Adjusted R^2	0.64	0.76	0.66	0.76	0.64	0.74	0.63	0.75

Table 10: UD Laws and Financial Leverage: Excluding Firms Incorporated in Delaware

Table 10 reports the results of the financial leverage regressions for subsample excluding firms incorporated in Delaware. The dependent variables in Panel A and B are *book leverage* and *market leverage*, respectively. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. *Book Leverage* is the ratio of the book value of debt to the book value of assets. *Market Leverage* is the ratio of the book value of debt to the market value of assets. Panel C reports the results of the dynamic financial leverage regressions. The dependent variables in column 1-3 and 4-6 are *book leverage* and *market leverage*, respectively. *UD law^{-1}* is an indicator variable that equals 1 for the year preceding UD Law adopted by a given state, and 0 otherwise. *UD law^0* is an indicator variable that equals 1 for the year UD Law adopted by a given state, and 0 otherwise. *UD law^1* is an indicator variable that equals 1 for the first year after UD Law adopted by a given state, and 0 otherwise. *UD law^{2+}* is an indicator variable that equals 1 for two and more year after UD Law adopted by a given state, and 0 otherwise. The models are estimated with other controls but their estimates are suppressed for brevity. Other variables are defined in Appendix A. *T*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: UD Laws and Book Leverage

	(1)	(2)	(3)	(4)
UD Law	0.009***	0.009***	0.011***	0.011***
	(3.22)	(3.06)	(5.28)	(5.38)
State GDP growth		-0.094***		-0.129***
		(3.21)		(3.56)
State GDP per capita		0.027		0.002
		(1.33)		(0.34)
Other controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	No	No
Year fixed effects	Yes	Yes	Yes	Yes
Industry fixed effects	No	No	Yes	Yes
Number of observations	43,118	43,118	43,118	43,118
Adjusted R^2	0.64	0.64	0.21	0.21

Panel B: UD Laws and Market Leverage

	(1)	(2)	(3)	(4)
UD Law	0.014***	0.014***	0.014***	0.016***
	(4.34)	(4.35)	(5.69)	(6.45)
State GDP growth		-0.299***		-0.376***
		(8.58)		(8.89)
State GDP per capita		-0.007		0.021***
		(0.29)		(2.80)
Other controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	No	No
Year fixed effects	Yes	Yes	Yes	Yes

	No	No	Yes	Yes
Industry fixed effects	No	No	Yes	Yes
Number of observations	43,118	43,118	43,118	43,118
Adjusted R^2	0.66	0.66	0.28	0.28

Panel C: UD Laws and Financial Leverage – Falsification Tests

	Book Leverage		Market Leverage	
	(1)	(2)	(3)	(4)
UD Law $^{-1}$	0.002	0.002	-0.006	-0.006
	(0.45)	(0.35)	(0.98)	(1.06)
UD Law ^{0}	0.014***	0.013***	0.010**	0.011**
	(2.80)	(2.73)	(2.03)	(2.21)
UD Law ^{1}	0.011**	0.010*	0.009*	0.007
	(2.15)	(1.92)	(1.85)	(1.57)
UD Law $^{2+}$	0.008**	0.008**	0.015***	0.015***
	(2.49)	(2.36)	(3.91)	(3.98)
State GDP growth		-0.093***		-0.302***
		(3.19)		(8.66)
State GDP per capita		0.027		(0.01)
		(1.31)		(0.23)
Other controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Number of observations	43,118	43,118	43,118	43,118
Adjusted R^2	0.64	0.64	0.66	0.66

Table 11: UD Laws, Corporate Governance, and Financial Leverage

Table 11 reports the results of the financial leverage regression models additionally controlling for corporate governance measures. The dependent variable is *market leverage*. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. *BCF index* is the managerial entrenchment index measuring the adoption of six important anti-takeover provisions. Panel B reports the results of the financial leverage regressions with the interactions between UD law and corporate governance measures. The models are estimated with other controls but their estimates are suppressed for brevity. *T*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)
UD Law	0.029***	0.006
	(3.74)	(0.35)
BCF index	0.003*	0.004*
	(1.71)	(1.80)
Institutional Ownership	-0.085***	-0.095***
	(8.92)	(9.55)
UD Law * BCF index		-0.008*
		(1.92)
UD Law * Institutional Ownership		0.090***
		(4.22)
State GDP growth	-0.035***	-0.035***
	(14.58)	(14.40)
State GDP per capita	-0.225***	-0.231***
	(3.97)	(4.07)
Other controls	Yes	Yes
Firm fixed effects	Yes	Yes
Year fixed effects	Yes	Yes
Number of observations	9,106	9,106
Adjusted R^2	0.77	0.77

Table 12: UD Laws and Financial Leverage -- Controlling for BC, PP Laws and PSLRA

Table 12 reports the results of the financial leverage regression models additionally controlling for BC and PP laws or the adoption of Private Securities Litigation Reform Act (PSLRA). The dependent variables are *book leverage* and *market leverage*. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. *BC law* is an indicator variable that takes a value of 1 for the years in which BC law is effective in a firm's state of incorporation, and 0 otherwise. *PP law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the PP law in a given year, and 0 otherwise. *PSLRA Adoption* is an indicator variable that takes a value of 1 for the years in which PSLRA is effective, and 0 otherwise. The models are estimated with other controls but their estimates are suppressed for brevity. *T*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Book Leverage			Market Leverage		
	(1)	(2)	(3)	(4)	(5)	(6)
UD Law	0.012***	0.012***	0.013***	0.019***	0.020***	0.021***
	(4.35)	(4.43)	(5.10)	(5.97)	(6.16)	(6.63)
BC Law	0.004	0.004		0.002	0.002	
	(1.49)	(1.46)		(0.69)	(0.57)	
PP Law	0.004*	0.004		0.004	0.003	
	(1.73)	(1.60)		(1.26)	(0.88)	
PSLRA Adoption			-0.091***			-0.037**
			(6.16)			(2.14)
State GDP growth		-0.073***	-0.075***		-0.264***	-0.266***
		(3.74)	(3.84)		(11.46)	(11.52)
State GDP per capita		-0.015	-0.013		-0.039**	-0.038**
		(1.05)	(0.97)		(2.38)	(2.34)
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	103,477	103,477	103,477	103,477	103,477	103,477
Adjusted R^2	0.65	0.65	0.65	0.66	0.66	0.66

Table 13: UD Laws and Financial Leverage -- Controlling for the Number of Securities Class Action Lawsuits

Table 13 reports the results of the financial leverage regression models additionally controlling for the number of securities class action lawsuits. The dependent variables are *book leverage* and *market leverage*. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. *Ln(Class) is* measured as the natural logarithm of the number of securities class action lawsuits in a state in a given year. *Ln(Institution) is* the natural logarithm of the number of securities class action lawsuits initiated by institutional investors in a state in a given year, respectively. The models are estimated with other controls but their estimates are suppressed for brevity. *T*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: UD Law and Financial Leverage -- Securities Class Action Lawsuits

	Book Leverage		Market Leverage	
	(1)	(2)	(3)	(4)
UD Law	0.012**	0.012**	0.018***	0.020***
	(2.12)	(2.19)	(2.65)	(2.91)
Ln(Class)	0.001	0.001	0.003***	0.003***
	(0.93)	(0.90)	(2.72)	(2.61)
State GDP growth		-0.034		-0.162***
		(1.20)		(4.86)
State GDP per capita		-0.035		-0.144***
		(1.61)		(5.61)
Other controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Number of observations	54,059	54,059	54,059	54,059
Adjusted R^2	0.70	0.70	0.70	0.70

Panel B: UD Law and Financial Leverage – Institutional Investors-Initiated Securities Class Action Lawsuits

	Book Leverage		Market Leverage	
	(1)	(2)	(3)	(4)
UD Law	0.016***	0.016***	0.022***	0.023***
	(2.63)	(2.63)	(3.11)	(3.22)
Ln(Institution)	0.001	0.002	0.003***	0.003***
	(1.54)	(1.59)	(2.70)	(2.94)
State GDP growth		-0.045		-0.168***
		(1.52)		(4.74)
State GDP per capita		-0.012		-0.105***
		(0.50)		(3.61)
Other controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes

Number of observations	47,828	47,828	47,828	47,828
Adjusted R^2	0.69	0.69	0.69	0.69

Table 14: UD Laws and Financial Leverage – Placebo Test

Table 14 reports the results of the financial leverage placebo regressions. The dependent variables are *book leverage* and *market leverage*. *UD law placebo dummy* is an indicator variable that takes a value of 1 for the firms incorporated in state that has been randomly assigned to the year in which the UD law was adopted, and 0 otherwise. *t*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Book Leverage			Market Leverage		
	(1)	(2)	(3)	(4)	(5)	(6)
UD Law Placebo dummy	-0.004***	-0.004***	-0.004***	-0.005***	-0.006***	-0.006***
	(2.89)	(3.23)	(3.20)	(3.70)	(3.97)	(3.89)
Size	0.036***	0.047***	0.047***	0.039***	0.050***	0.050***
	(54.77)	(68.73)	(68.77)	(50.57)	(61.39)	(61.60)
Market-to-book	-0.006***	-0.006***	-0.006***	-0.019***	-0.018***	-0.018***
	(24.94)	(23.34)	(23.20)	(64.78)	(63.36)	(63.00)
Profitability	-0.080***	0.002	0.002	-0.122***	-0.052***	-0.051***
	(32.94)	(0.58)	(0.65)	(42.27)	(14.47)	(14.26)
Tangibility	0.215***	0.202***	0.202***	0.218***	0.208***	0.207***
	(51.07)	(48.43)	(48.43)	(43.94)	(42.12)	(42.15)
Dividend dummy		-0.042***	-0.042***		-0.068***	-0.068***
		(24.81)	(24.79)		(33.72)	(33.68)
Modified Z-Score		-0.011***	-0.011***		-0.009***	-0.009***
		(44.20)	(44.23)		(31.45)	(31.57)
State GDP growth			-0.077***			-0.269***
			(3.97)			(11.69)
State GDP per capita			-0.007			-0.029*
			(0.52)			(1.77)
Intercept	-0.042***	-0.091***	0.076	-0.004	-0.045***	0.298*
	(9.10)	(19.51)	(0.57)	(0.82)	(8.07)	(1.87)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	103,477	103,477	103,477	103,477	103,477	103,477
Adjusted R^2	0.64	0.65	0.65	0.65	0.66	0.66

Table 15: Change in Financial Leverage Regressions

Table 15 reports the results of the change in financial leverage regressions. The dependent variables are the *change in book leverage* and *market leverage* from year *t*-1 to year *t*. *UD law* is an indicator variable that takes a value of 1 for the firms incorporated in state has passed the UD law in a given year, and 0 otherwise. Δ indicates the change in variable value from preceding year to current year. *t*-statistics based on heteroscedasticity-robust standard errors clustered by firms are reported in parentheses. The symbols ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	ΔBook Leverage			ΔMarket Leverage		
	(1)	(2)	(3)	(4)	(5)	(6)
ΔUD Law	0.008**	0.008**	0.007**	0.010**	0.009**	0.009**
	(2.06)	(2.03)	(1.97)	(2.17)	(2.07)	(2.03)
Book leverage$_{t-1}$	-0.402***	-0.395***	-0.395***			
	(82.33)	(133.76)	(133.77)			
Market leverage t-1				-0.372***	-0.367***	-0.367***
				(78.61)	(77.55)	(77.45)
ΔSize	0.045***	0.059***	0.059***	0.039***	0.050***	0.050***
	(25.72)	(55.18)	(55.15)	(20.37)	(24.21)	(24.18)
ΔMarket-to-book	-0.002***	-0.002***	-0.002***	-0.009***	-0.010***	-0.010***
	(6.83)	(11.55)	(11.56)	(35.71)	(35.86)	(35.82)
ΔProfitability	-0.064***	-0.008***	-0.008***	-0.081***	-0.034***	-0.034***
	(20.36)	(3.09)	(3.09)	(26.10)	(8.12)	(8.15)
ΔTangibility	0.153***	0.149***	0.149***	0.143***	0.140***	0.140***
	(19.84)	(34.29)	(34.28)	(17.99)	(17.67)	(17.67)
ΔDividend dummy		-0.014***	-0.014***		-0.021***	-0.021***
		(7.99)	(7.98)		(8.93)	(8.92)
ΔModified Z-Score		-0.009***	-0.009***		-0.007***	-0.007***
		(32.79)	(32.76)		(14.86)	(14.80)
ΔState GDP growth			-0.019			-0.106***
			(1.50)			(6.23)
ΔState GDP per capita			0.002			0.014*
			(0.58)			(1.92)
Intercept	0.082***	0.078***	0.077***	0.078***	0.074***	0.074***
	(73.05)	(96.19)	(91.01)	(62.96)	(59.35)	(56.16)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	91,313	91,313	91,313	91,313	91,313	91,313
Adjusted R^2	0.25	0.26	0.26	0.26	0.27	0.27