

# Auditor litigation risk and capital structure dynamics

Kwabena Boasiako\*

Manchester Metropolitan University, UK

Sylvester Adasi Manu<sup>†</sup>

NEOMA Business School, France

Anthony Kyiu<sup>‡</sup>

Durham University, UK

Bernard Tawiah<sup>§</sup>

Southern Utah University, United States

## Synopsis

### The research problem

There is a longstanding debate on the appropriate level of auditor legal liability. However, there is little evidence in the empirical literature about whether or not limits on auditor liability will be harmful or beneficial to firms and capital suppliers in financial markets. We examine the effect of third-party auditor litigation risk on firm capital structure dynamics.

### Institutional setting

We exploit the staggered state-level shocks to third-party auditor legal liability in the United States by using state court rulings on major precedent-setting cases.

### The test hypothesis

Higher auditor litigation risk might lead to better auditing and financial reporting, less information asymmetry between firms and capital providers, and a lower cost of debt. As

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\*MMU Business School, Manchester Metropolitan University, M15 6BH, UK **Email:** [k.boasiako@mmu.ac.uk](mailto:k.boasiako@mmu.ac.uk), **Tel:** +447471082764

<sup>†</sup>NEOMA Business School, France **Email:** [sylvester.adasi-manu@neoma-bs.fr](mailto:sylvester.adasi-manu@neoma-bs.fr), **Tel:** +33 744762527

<sup>‡</sup>Durham Business School, Durham University, Durham, DH1 3LB, UK **Email:** [anthony.k.kyiu@durham.ac.uk](mailto:anthony.k.kyiu@durham.ac.uk), **Tel:** +44 (0) 191 334 9427

<sup>§</sup>Dixie L. Leavitt School of Business, Southern Utah University, United States **Email:** [bernardtawiah@suu.edu](mailto:bernardtawiah@suu.edu), **Tel:** 2025209190

a result, firms may be more likely to take on more debt and make changes to their use of debt of different maturities.

### **Adopted methodology**

To test our hypotheses, we use a difference-in-difference estimation approach. This approach allows us to compare the financial leverage of a treatment firm affected by the shock to that of a control firm not affected by the state-level shock throughout the sample period.

### **Findings and implications**

We find strong evidence that an exogenous increase in auditor litigation risk leads to higher leverage ratios, a lower cost of debt, and greater use of longer-term debt. Firms in states with higher auditor litigation risk increase leverage to optimal debt levels compared to firms in states with lower auditor litigation risk. Our findings provide valuable insights into the capital market and the firm-level implications of auditor legal liability.

**Keywords:** Auditor litigation, capital structure, debt maturity, debt financing.

**JEL classification:** G30, G32, M42

# 1 Introduction

Auditors communicate information about the quality of financial reports, which helps facilitate contracting amongst participants in financial markets in general and debt markets in particular (Chen et al., 2016). Adverse litigation outcomes against auditors could result in significant monetary costs, severely damage their reputation, and threaten their very survival. For instance, in 1990, Laventhol & Horwath, which was the seventh-largest audit firm at the time, went bankrupt because of costly lawsuits (Honigsberg et al., 2020). To avoid such potential litigation costs and reputational damage, auditors are more likely to strengthen the quality of their work when the risk of auditor litigation increases, leading to improved financial reporting quality (Yu, 2011; Zhang, 2007). In this study, we examine whether and how the risk of litigation against auditors affects firms' capital structure decisions.

Prior empirical studies document an effect of litigation risk on audit strategies, and thereby, financial reporting quality (Lennox and Li, 2012; Anantharaman et al., 2016; Al-Hadi et al., 2022). We argue that changes in auditor litigation risk due to the expansion of the class of users who could sue auditors, can lead to a reduction in information asymmetry between firms and external debt capital providers, resulting in a decrease to the cost of debt financing (Derrien et al., 2016). That is, the change in litigation standards can tip the auditor's cost-benefit calculus in such a way that the resulting financial reports enable providers of external finance to better assess potential borrowers. Consequently, borrowers are able to obtain greater access to debt financing and increase their flexibility in using debt of different maturities. This argument serves as one possible mechanism through which the effects of changes in auditor litigation risk may be linked to the leverage choices of their client-firms.

A challenging hurdle, however, in our research design is how to isolate changes in auditor litigation risk that do not correlate with other factors that may also impact firm leverage dynamics and lenders' contracting choices. We circumvent this by focusing on the staggered changes to auditor legal liability at the state level. Following Chy et al. (2021), we use rulings by US state courts on major precedent-setting cases. The relevance

of state law cases is underscored by the fact that they accounted for about 58 percent of larger settlements paid by six of the largest audit firms between 1996 and 2007 ([Donelson, 2013](#)). Thus, as our identification strategy, we exploit the exogenous shocks from changes in auditor litigation risk in US states to investigate its impact on client firms' capital structure dynamics.

During our sample period (1973-2005), fourteen US states expand auditor legal liability whilst two states reduce it. To the extent that these auditor liability shocks increase (decrease) auditor litigation risk whilst also decreasing (increasing) the agency cost of debt, firms will be motivated to increase (decrease) financial leverage and make changes to their use of debt of different maturities. Unlike state laws, which may be subject to influence from lobbyists and pressure groups, precedent-setting court rulings on auditor liability are an idiosyncratic function of the peculiar cases and the judicial disposition of judges. Hence, such rulings are more likely to be exogenous to firms' financial decisions. Moreover, in changing their views on auditor legal liability, state courts do not directly aim to affect firms' capital financial decisions, such as their structure choices. Furthermore, the use of auditor liability shocks reduces concerns about correlated omitted variables as they affect states with heterogeneity in local conditions like geography and population ([Chy et al., 2021](#)).

We start our empirical investigation by examining the effects of higher auditor legal liability on clients' financial leverage by using a Difference-in-Difference (DID) approach. This approach enables us to compare the financial leverage of a treatment firm before and after the state-level auditor legal liability shock. Additionally, it allows us to compare the financial leverage of a treatment firm affected by the shock to that of a control firm not affected by the state-level shock throughout the sample period. Consistent with extant literature, ([Serfling, 2016](#); [Frank and Goyal, 2009](#); [Guedes and Opler, 1996](#); [Rajan and Zingales, 1995](#)), we also control for a number of variables that explain financial leverage such as firm size, growth opportunities, age, asset tangibility, research and development, profitability, cash and dividends. We find that firms located in states with higher auditor litigation risk are associated with higher use of financial leverage. The economic effect

of this relationship is not trivial. Using our most conservative estimation coefficient to gauge the economic importance of auditor litigation risk exposure on financial leverage, we find that auditor litigation risk leads to an increase in leverage by 0.0102, which is equivalent to 4.2% of the sample mean. Our results are robust to the use of alternative leverage measures, alternative econometric methods, and not sensitive to controlling for state economic conditions, the Private Securities Litigation Reform Act (PSLRA) of 1995, and the Delaware effect.<sup>1</sup>

We then examine the relationship between auditor litigation risk and the use of debt of different maturities. Prior literature explores the use of zero debt in a firm’s capital structure. Implicit in the zero debt question is the accounting rule that distinguishes short-term from long-term debt based upon whether the debt matures in one year. We construct a measure that places a firm’s use of debt into three maturity categories and then test the influence of auditor litigation risk on the probability of a firm’s use of each type of debt maturity category. We find that when auditor litigation risk increases, the probability of a firm using debt of shorter (longer) maturity decreases (increases).

We also explore a number of channels through which higher auditor litigation risk may increase firm-level leverage. Specifically, we focus on the role of external finance dependence and financial constraints, credit ratings, and the cost of debt. With regards to the role of external finance dependence and financial constraints, we conjecture that the impact of auditor litigation risk on financial leverage will be more pronounced for firms with a higher dependence on external financing and firms that are financially constrained. In an incomplete contracting setting, higher auditor litigation risk can serve as an effective monitoring device. Debtholders in turn trust that firms in states with higher auditor litigation risk will have lower risk and fewer agency problems. Therefore, with regards to credit ratings and cost of debt, we argue that an increase in auditor litigation risk and the resultant improvement in financial reporting quality should lead to higher credit ratings and lower debt costs, which should translate to higher use of leverage and debt of longer maturities. We find empirical evidence in support of our conjectures relating

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<sup>1</sup>Studies such as [Daines \(2001\)](#) show that many firms choose to incorporate in Delaware in order to enjoy more corporation-friendly laws and tax regimes.

to the role of external financing and financial constraints, credit ratings, and the cost of debt in the relationship between auditor litigation risk and financial leverage.

It is possible that unobservable shocks that coincide with state-level auditor legal liability shocks could be the primary cause of changes in financial leverage. If this is the case, then the changes in leverage we attribute to the auditor litigation risk reflect a mere association rather than a causal effect. This is unlikely in our case of multiple shocks. Nevertheless, we address this concern by conducting a falsification test in a manner similar to that of [Cornaggia et al. \(2015\)](#). For each year, we randomly assign firms to the various states. We then randomly assign the states into the distribution of years of the various precedent-setting state court rulings. This helps maintain the actual distribution of years of the auditor legal liability shocks but disrupts the correct assignment of the states to the actual shock years. Hence, an unobservable shock that occurs at approximately the same time as the auditor legal liability shocks would still reside within the baseline testing framework and should drive the leverage results. In contrast, if no such unobservable shocks exist, then we expect that the incorrect assignments of the firms and states to the auditor legal liability shock years should weaken our baseline results. Indeed, our randomized auditor legal liability estimation results show no effect on financial leverage, thus, discounting any omitted variable bias.

Also, one may be concerned that both firm financial leverage and state-level auditor litigation risk follow time trends, implying a spurious rather than a causal relationship between the two. Intuitively, if time trends drive the relationship between auditor litigation risk and firm capital structure, we should also observe an increase in financial leverage before the auditor litigation shocks. Employing a dynamic model to examine the timing of the effect of auditor litigation risk on financial leverage, we find that financial leverage increases only after the shock to auditor litigation risk but not before.

Our study contributes to the literature in several ways. First, we contribute to the capital structure literature by examining how auditor litigation risk affects different aspects of firms' capital structure decisions. [Chy et al. \(2021\)](#) find that greater auditor litigation risk improves client firms' access to external private debt financing and in-

creases the client’s likelihood of receiving a bank loan. Different from their study, we focus on the connection between auditor litigation risk and firm leverage ratios, as access to private debt markets may not necessarily imply a change in firms’ capital structure. Corporate leverage may also be affected by non-bank private debt, non-financial liabilities, and public debt. There is no evidence that Auditor litigation risk increases access to these other forms of debt. Firms that have access to bank private debt and public debt may be significantly different. For example, [Denis and Mihov \(2003\)](#) show that firms with the highest credit quality borrow from public sources while firms with medium credit quality borrow from banks. Thus, our study extends the extant literature by providing evidence of how auditor litigation risk affects firm capital structure policy as a whole, including leverage ratios, use of debt of different maturities and optimal capital structure.

Second, we contribute to a growing literature that examines the implications of auditor litigation for firm level outcomes ([Anantharaman et al., 2016](#); [Chy et al., 2021](#); [Al-Hadi et al., 2022](#)). In line with [Anantharaman et al. \(2016\)](#), we show that the outcomes of higher auditor litigation risk go beyond the effects on audit and financial reporting quality, but have the potential to affect firms’ financial decision making.

Third, like [Chy et al. \(2021\)](#), we also contribute to the longstanding policy debate on the suitable level of auditor legal liability. To date, it remains unclear whether or not limits on auditor liability will be harmful or beneficial to financial markets, given that the US Department of Treasury itself has been unable to reach a conclusion on the matter. Therefore, we need a critical mass of empirical studies that shed light on the capital market and firm-level implications of auditor legal liability, aiming to shape this debate and potentially lead to more informed conclusions. Our paper provides valuable insights into this issue by examining the potential impact of auditor litigation risk on firm financial leverage policies.

The rest of the paper is organised as follows. We provide a background to auditor litigation risk in [Section 2](#) and formulate our hypotheses in [Section 3](#). We describe our data and identification strategy in [Section 4](#). In [Section 5](#), we present and discuss our

results. We carry out robustness checks in Section 6 and conclude in Section 7.

## 2 Background to auditor litigation risk

At the state level in the US, auditors are subject to claims by third parties based on precedent-setting cases ([Gaver et al., 2012](#); [Reinstein et al., 2020](#)). Auditors can mostly be sued for misrepresentation and failure to exercise reasonable care ([Reinstein et al., 2020](#)), although they can also be sued for negligence and fraud ([Al-Hadi et al., 2022](#)). Determining auditor liability to third-party claims under US state common law hinges mainly on three principles namely; Privity, Restatement and Foreseeability ([Anantharaman et al., 2016](#)).

Privity requires that a contractual relationship exists between an auditor and third parties in order to afford them (third parties) the capacity to sue auditors. The restatement standard stipulates that third parties can sue auditors for failure to exercise reasonable care if they use information supplied by the auditor or suffer losses by relying upon information provided by the auditor. The more far-reaching foreseeability standard exposes the auditor to liability from all foreseeable parties who may be able to sue the auditor for failing to exercise due diligence. An increase in auditor litigation will therefore involve a shift from application of the Privity standard to the Restatement standard and the Foreseeability standard.

In the following example, we provide details of a case from the list of cases used in the paper as a general illustration of the increase in auditor liability. Specifically, it highlights responsibility of auditors to lenders thereby expanding the class of foreseeable users of auditors' work. The case is *Touche Ross and Co. v. Commercial Union Ins. Co.*, 514 So. 2d 315 (Miss. 1987), where the Supreme Court of Mississippi examined auditor liability to third parties. The case arose after Fidelity Bank was declared insolvent in 1979, leading to losses of around \$7 million. Commercial Union Insurance Co., which had insured Fidelity Bank against employee fraud, paid out \$1 million due to fraud committed by Fidelity Bank's president. Commercial Union subsequently sued Touche



Ross, the bank’s auditor, for gross negligence, alleging that their audit failed to disclose critical activities in violation of accounting and auditing standards, which would have prevented the insurance coverage if known. The court determined that Touche Ross had a duty of care to third parties like Commercial Union, who relied on the audit for significant financial decisions, and ruled that Touche Ross could be held liable for the losses suffered by Commercial Union. The court stated a traditional negligence rule as the basis of liability: “an independent auditor is liable to reasonably foreseeable users of the audit, who request and receive a financial statement from the audited entity for a proper business purpose, and who then detrimentally rely on the financial statement, suffering a loss, proximately caused by the auditor’s negligence.”

Taken together, third parties like banks, insurance companies, and brokerage firms hold auditors liable primarily under state common law, and lawsuits based on state law represent a large portion of the total lawsuits against auditors ([Anantharaman et al., 2016](#); [Donelson, 2013](#)). As such, state law common liability exposure is economically significant enough to potentially affect auditors’ incentives to supply greater audit quality and, in turn, influence clients’ capital structure decisions. Therefore, we utilise plausible exogenous shocks in auditor legal liability, ranging from Privity-to-Restatement-to-Forseeability, as a method of identification to explore how a change in auditor litigation risk affects client firms’ capital structure decisions.

### 3 Hypotheses development

Besides the direct monetary costs, adverse litigation outcome against auditors by third parties can severely damage auditors’ reputation. As such, an increase in auditor litigation risk exposure could motivate auditors to withstand management pressure and monitor the client’s financial statements with duty and care, resulting in an improvement in audit and accounting quality. Indeed, both theoretical and empirical studies support the contention that higher auditor litigation risk results in better audit quality ([Lennox and Li, 2012](#); [Yu, 2011](#); [Zhang, 2007](#)). The improvement in audit and accounting quality helps credit

suppliers to better determine the company’s value and the likelihood of default, which can reduce information asymmetry, facilitate the debt contracting process, and reduce the agency costs of debt. Empirical research supports this notion. For instance, [Minnis \(2011\)](#) and [Bharath et al. \(2008\)](#) find a positive relation between accounting quality (and audited financial statements) and cost of debt. To the extent that higher auditor litigation risk improves audit and financial reporting quality, decreases information asymmetry, and results in a lower cost of debt, firms might be motivated to increase financial leverage and make changes to their use of debt of different maturities. The foregoing arguments lead to our first testable hypothesis as follows:

**Hypothesis 1:** *Higher auditor litigation risk leads to an increase in firm financial leverage.*

[Keefe and Yaghoubi \(2016\)](#) show that the application of [Black and Scholes \(1973\)](#) model to a firm’s capital structure implies that the cost of debt is impacted by debt maturity. If higher auditor litigation risk improves audit and financial reporting quality, which results in a lower cost of debt, then firms might be motivated to use debt of longer maturities. Debt of longer maturity helps position firms for long-term initiatives, limits exposure to refinancing risk, provides greater flexibility and resources to fund various capital needs, and to better manage financial risk. Although the use of short maturity debt exposes managers to greater monitoring by the market, short maturity debt can also expose firms to credit supply shocks and liquidity risk ([Ben-Nasr et al., 2015](#)). With improved financial reporting quality, stemming from increased auditor litigation risk, the risk of information asymmetry is reduced. This leads to a more conducive basis for the use of debt of longer maturities, which firms may also be able to secure at a relatively lower cost. We therefore state our second hypothesis, which relates to the impact of auditor litigation risk on debt maturity as follows:<sup>2</sup>

**Hypothesis 2:** *The probability of a firm using debt of shorter (longer) maturity decreases (increases) with higher auditor litigation risk.*

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<sup>2</sup>Here, we do not test for whether firms switch from short to long-term debt or vice versa, but are merely examining the likelihood of using either type of debt.

## 4 Data and identification strategy

### 4.1 Sample

Our sample includes all US public firms from the Compustat database for the period 1973–2005. The first auditor legal liability shock in our sample is in 1983, and the last takes place in 1995. We exclude firms from the utility and financial industries (Standard Industrial Classification (SIC) codes from 4900 to 4999 and 6000–6999, respectively) since these industries are highly regulated and their capital structures may have a different meaning. We further exclude firm-year observations with missing or negative values of assets and sales. Finally, we follow [Boasiako and Keefe \(2021\)](#) and winsorize the continuous variables at their 1st and 99th percentiles to avoid the effect of outliers on the analysis results. These sample selection filters result in 121,829 firm-year observations.

### 4.2 Variable construction

#### 4.2.1 Capital structure measures

In the spirit of [Keefe and Yaghoubi \(2016\)](#) and [Welch \(2011\)](#), we construct our first measure of capital structure. The broadest definition of debt includes all liabilities including non-financial liabilities. We measure our all liabilities book debt ratio  $BDR1$  as the ratio of total liabilities to total assets. This measure is consistent with the [Welch \(2011\)](#) critique since it does not treat non-financial liabilities as equity. We construct the all liabilities book debt ratio as:

$$BDR1 = \frac{Total\ Liabilities}{Total\ Assets} \quad (1)$$

Following [Nguyen et al. \(2020\)](#), we construct our second measure of capital structure, ( $BDR2$ ). This includes short-term plus long-term debt. We measure ( $BDR2$ ) as the ratio of total debt (short plus long-term debt) to total assets. We construct the total debt book ratio as

$$BDR2 = \frac{Short\ Term\ Debt + Long\ Term\ Debt}{Total\ Assets} \quad (2)$$

For robustness checks, we employ three alternative capital structure measures. Specifically, we measure *BDR3* as the ratio of short plus long-term debt to short plus long-term debt plus common shareholders' equity. We also construct a long-term book debt ratio (*BDR4*) measured as total long-term debt divided by the total long-term debt plus common shareholders' equity. Both *BDR3* and *BDR4* are consistent with the [Welch \(2011\)](#) critique as the denominators exclude non-financial liabilities. We further follow [Welch \(2011\)](#) and [Rajan and Zingales \(1995\)](#) and construct an all liabilities market debt ratio. The all liabilities market debt ratio, *MDR1*, is the ratio of total liabilities to total assets minus common shareholders' equity plus market value of common stock.

#### 4.2.2 Debt maturity measures

Our debt maturity measure, *ZerobyMaturity*, is an ordered categorical variable based on a firm's use of debt of different maturities and is constructed according to descending order of debt maturity. It takes the value of 1 when a firm uses long-term debt, including debentures. It takes the value of 2 for firms that use only short term debt, which we capture by looking at firms that do not use long term debt or debentures, but have a proportion of total debt in current liabilities. It takes the value of 3 for firms that use neither long-term debt nor short-term debt (zero debt), consistent with the definitions of [Strebulaev and Yang \(2013\)](#). The construction of our *ZerobyMaturity* variable is summarised in Appendix A. For robustness checks, we follow [Fan et al. \(2012\)](#) and construct an alternative measure of debt maturity, *DebtMatD*, which we compute as the ratio of long-term debt to total debt (short plus long-term debt). One issue with this measure though, is that it does not include non-financial liabilities in the denominator. As non-financial liabilities like trade credit could be an important source of financing to firms, we also follow [Keefe and Yaghoubi \(2016\)](#) and construct another debt maturity measure that includes non-financial liabilities, *DebtMatL*. This is computed as the ratio of the book value of long-term debt to total liabilities.

### 4.2.3 Auditor litigation risk measure

To create our auditor litigation risk variable, *Auditor Litigation (0/1)*, we first compile a list of the main legal cases addressing auditor legal liability in each state following prior studies (Chy et al., 2021; Anantharaman et al., 2016; Donelson, 2013).<sup>3</sup> We then confirm whether these are indeed precedent-setting cases that increase auditor liability by reading the rulings. A ruling from a precedent-setting case becomes case law and, unless reversed by a contrary ruling by another or appellate court, provides a basis for subsequent rulings on auditor legal liability. Thus, we use the dates of these cases to construct an indicator for whether state courts expand auditor legal liability to third parties in any given year. For fourteen states courts expand auditor legal liability to third parties. Hence, we set *Auditor Litigation (0/1)* equal to 0 in all years before the date of the precedent-setting case, and equal to 1 in for the year of the case and afterwards.

Two states decrease auditor legal liability during our sample period, following a previous year of expanding it. To identify the precedent-setting cases that decrease auditor legal liability in a state that had previously expanded auditor legal liability, we examine the legal cases that the studies above flag as reversals of courts' prior expansion of auditor legal liability. We also check and confirm that auditor legal liability was indeed decreased in these cases and the case decision represents the first decrease of auditor legal liability in the state. Thus, we allow the value of *Auditor Litigation (0/1)* to revert to zero in the two cases in which a subsequent court decision reverses the state's position regarding auditor legal liability. It remains zero for firms the states that do not change auditors' litigation risk during the sample period. Hence, our key *Auditor Litigation (0/1)*, combines both positive and negative shocks. In Appendix B, we list the fourteen precedent-setting cases in which state courts expand auditor legal liability, and the two cases in which state courts reverse prior expansion of auditor legal liability.

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<sup>3</sup>See Appendix B for all the legal cases

#### 4.2.4 Control variables

Consistent with prior literature (Serfling, 2016; Frank and Goyal, 2009; Guedes and Opler, 1996; Rajan and Zingales, 1995) we control for a set of firm-level variables that have the potential to explain financial leverage and debt maturity structure. These variables include *Firm Size*, *Market-to-book*, *LN(Firm Age)*, *Tangibility*, *R&D Expenditure*, *Profitability*, *Cash*, and *Dividend Paying Firms (0/1)*. Both auditor litigation risk and firm capital structures could be correlated with unobserved factors such as the economic conditions of a firm's States of incorporation, raising endogeneity concern about their relation. We include another variable, *State GDP Growth* to alleviate this concern. A detailed description of these variables is provided in Appendix C.

### 4.3 Empirical strategy

We design our empirical strategy by following prior studies that exploit the impact of staggered state-level shocks on firm-level outcomes (e.g Boasiako and Keefe, 2021; Qiu and Wang, 2018; Klasa et al., 2018; He, 2018). Our treatment group comprises firms based or incorporated in states that change auditor legal liability during our sample period whilst our control group is made up of firms located or incorporated in states that do not change auditor legal liability throughout the sample period. Due to the staggered nature of the shock, firms remain in the control group until the shock occurs when they are moved to the treatment group. With a large number of shocks, especially amongst states that differ in both geographic and economic characteristics, we are less likely to observe and systematic correlation of these shocks with omitted factors (Chy et al., 2021).

To test the impact of auditor litigation risk on firm leverage, we estimate the following model by Ordinary Least Squares (OLS):

$$Y_{i,s,t} = \alpha + \beta \text{Auditor Litigation}(0/1)_{s,t} + \gamma X_{i,s,t} + \theta_s + \rho_j + \delta_t + \varepsilon_{i,s,t}, \quad (3)$$

where  $i$  indexes firms,  $s$  indexes headquarter state of the firm, and  $t$  indexes time.  $Y_{i,s,t}$  represents the leverage measures, which is either *BDR1* or *BDR2* as described in

Section 4.2.1. *Auditor Litigation*(0/1)<sub>s,t</sub> is an indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties; it moves from one to zero when (and after) states reduce auditor legal liability to third parties. It remains zero for the states that do not change auditors' litigation risk during the sample period. This variable combines both positive and negative shocks.  $X_{i,s,t}$  is a vector of controls.<sup>4</sup> To further strengthen identification, we primarily rely on the inclusion of state ( $\theta_s$ ), industry ( $\rho_j$ ), and year ( $\delta_t$ ) fixed effects.

To test the relationship between auditor litigation risk and debt maturity, we estimate the following ordered probit model:

$$PR(ZerobyMaturity|X_t, v_j) = \Phi(X_t\beta_1 + \beta Auditor\ Litigation(0/1)_{s,t} + v_j - k_i), \quad (4)$$

where *ZerobyMaturity* is a categorical variable that starts from firms that hold debt with more than ten years of maturity to firms with no long and short-term debt. Residual  $v_j$  has the standard normal distribution  $N(0,1)$ , and  $k$  is a set of cut-points, where  $i$  is the category number. The model has  $k=2$  cut-points as there are  $i=3$  categories of *ZerobyMaturity*.

## 4.4 Summary statistics

Table 1 presents summary statistics of our data. Panel A reports the summary statistics of the key variables of the primary sample used in our analyses. The mean value of *Auditor Litigation* (0/1) is 0.18, and the mean of the log value of company age is 1.96 years. The average company has a market-to-book ratio of 2.2 and 4.2% of assets are invested in R&D. Additionally, on average, firms hold 17.4% of their assets in cash, 36% of firms are dividend paying firms, and firms make an average 10% profit. The distributions of the variables are largely consistent with our expectations.

In Panel B, we provide more detailed summary statistics to better understand our

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<sup>4</sup>See Appendix C for the definition of all variables, including controls

sample. The panel shows mean values of key variables for treatment firms during periods of high auditor litigation risk (Column 1) and periods of low auditor litigation risk (Column 2), along with a test of differences between the two. Across our key leverage measures (including alternative leverage measures), treatment firms have higher mean values during periods of high auditor litigation risk compared to periods of low auditor litigation risk. This suggests a positive effect of high auditor litigation risk on financial leverage. However, to better assess the causal link between changes in auditor litigation risk and financial leverage, we examine the effect of staggered state-level litigation risk on financial leverage using various multivariate analyses in the next section.

PLEASE INSERT TABLE 1 HERE

## 5 Empirical results

### 5.1 Auditor litigation risk and financial leverage

The univariate results in Panel B of Table 1 show that treatment firms increase their financial leverage in the high litigation regime compared to the low litigation regime. This suggests a positive effect of auditor litigation risk on financial leverage. We continue our analysis using a multivariate approach.

Table 2 presents the baseline estimation results. In Columns 1 and 2, the dependent variable is *BDR1* and in Columns 3 and 4, the dependent variable is *BDR2*. In addition to controlling for a set of firm-level variables that capture factors that are known to affect leverage, we also control for state GDP growth in Columns 2 and 4. Across all these specifications, the coefficient associated with *Auditor Litigation (0/1)* is positive and statistically significant, indicating that higher auditor litigation risk leads to an increase in financial leverage. We use the most conservative results in Column (4) of Table 2 to gauge the economic importance of higher auditor litigation risk exposure on financial leverage. In Column (4), the coefficient associated with *Auditor Litigation (0/1)* is 0.0102. All else being equal, an increase in financial leverage by 0.0102 corresponds to



a 4.2% increase from mean *BDR2* (0.2430) and 4.8% increase from the median *BDR2* (0.2132) for our sample firms.

PLEASE INSERT TABLE 2 HERE

## 5.2 Auditor litigation risk and financial leverage: Placebo test

Omitted variables coinciding with the auditor legal liability shocks could drive the baseline results. If this were the case, the increase in financial leverage we attribute to higher auditor litigation risk reflect mere association rather than causality. However, the state courts rulings on auditor legal liability occur at different times, providing multiple exogenous shocks. This makes it unlikely for an omitted variable to coincide with the auditor legal liability shocks. Nevertheless, We address this concern by conducting a falsification test in a manner similar to that of [Cornaggia et al. \(2015\)](#).

We follow a two- step process. First, for each year, we randomly assign firms to the various states. Next, we randomly assign the states into the distribution of years of the various precedent-setting state courts rulings. This helps maintain the actual distribution of years of the auditor legal liability shocks; however, it disrupts the correct assignment of the states to the actual shock years. Therefore, an unobservable shock that occurs at approximately the same time as the auditor legal liability shocks would still reside within the baseline testing framework and, hence, drive the leverage results. In contrast, if no such unobservable shocks exist, then we expect that the incorrect assignments of the firms and states to the auditor legal liability shock years should weaken our results for the re-estimated baseline specification. Indeed, we do not find statistically significant effects of the auditor legal liability shocks on financial leverage following the random assignment. As reported in Table 3, the coefficients on the *Auditor Litigation (0/1)* variable in Columns (1) to (4) are all statistically non-significant, confirming that increases in leverage are attributable to an increased in auditor litigation risk in the affected states.

PLEASE INSERT TABLE 3 HERE

### 5.3 Timing of changes in capital structure surrounding auditor legal liability shocks

We next examine the timing of changes in leverage relative to the timing of the precedent-setting state courts rulings on auditor legal liability. If reverse causality drives our results, we should observe an increasing trend in the leverage of firms in affected states prior to the auditor legal liability shocks. Such evidence would cast doubt on the validity of our empirical approach, as it would imply a violation of the parallel trends assumption that the trends in the leverage of treatment firms in precedent-setting states and control firms in states that do not change auditors' litigation risk are parallel prior to the litigation shocks. Table 4 presents the dynamic effect of auditor litigation risk on leverage using similar specifications as those in Table 2. Following He (2018), we replace *Auditor Litigation* ( $0/1$ ) with *Auditor Litigation* ( $0/1$ )<sup>-2</sup>, *Auditor Litigation* ( $0/1$ )<sup>-1</sup>, *Auditor Litigation* ( $0/1$ )<sup>0</sup>, *Auditor Litigation* ( $0/1$ )<sup>+1</sup>, and *Auditor Litigation* ( $0/1$ )<sup>+2</sup>, which take the value of one during two-year prior to, one-year prior to, current year, one-year post to, and two-year after the increase in auditor litigation risk in the state, respectively, and zero otherwise. The results demonstrate that treated firms do not increase leverage prior to the changes in auditor litigation risk, as the coefficients on *Auditor Litigation* ( $0/1$ )<sup>-2</sup> and *Auditor Litigation* ( $0/1$ )<sup>-1</sup> are all statistically indistinguishable from zero across all specifications.

PLEASE INSERT TABLE 4 HERE

### 5.4 Auditor litigation risk and optimal capital structure

Overall the results presented so far support our first hypothesis that higher auditor litigation risk leads to an increase in firm financial leverage. However, we go further to

examine whether higher auditor litigation risk drives firms to increase financial leverage to their optimal levels. We examine the relation between higher auditor litigation risk and firms’ underleverage and report the results in Table 5. Panel A reports the results of underleverage linear probability regressions. The dependent variable in Panel A is the underleverage dummy that takes a value of one for firms with actual leverage below the optimal leverage, and zero otherwise. In Panel A, the optimal leverage is estimated as the fitted value of the financial leverage regression. In Panel B, the optimal leverage is determined as the industry contemporaneous median financial leverage. Across all specifications in Panels A and B, the results indicate a negative relation between higher auditor litigation risk and the likelihood of underleverage, suggesting that firms are less likely to be underleveraged but increase their leverage to the optimal levels following the expansion of auditor legal liability.

**PLEASE INSERT TABLE 5 HERE**

## 5.5 Mechanisms

### 5.5.1 The role of external finance dependence and financial constraints

So far, our findings support the hypothesis that firms increase their financial leverage in response to increase in auditor litigation risk. We now turn to examine the role of external finance dependence and financial constraints in the auditor litigation risk effect on leverage. Since higher auditor litigation risk motivates firms to increase financial leverage, we expect the effect of auditor litigation risk on financial leverage to be more pronounced for high external finance dependent firms and financially constrained firms.

In Panel A of Table 6, we follow [Tawiah and Keefe \(2022\)](#) and [Boasiako et al. \(2022\)](#) and construct *High ExtFin* (0/1), an indicator variable that takes the value of one if a company’s external finance dependence level is greater than its [Fama and French \(1997\)](#) respective industry median, and zero otherwise. Our variable of interest is the interaction term *Auditor Litigation* (0/1)  $\times$  *High ExtFin* (0/1). Panel A of Table 6 presents the

results. The coefficients associated with *Auditor Litigation* ( $0/1$ )  $\times$  *High ExtFin* ( $0/1$ ) are all consistent with our expectations. The positive effect of auditor litigation risk on financial leverage is more pronounced for firms that are more dependent on external finance.

In Panel B of Table 6, we construct *FinCon* ( $0/1$ ), an indicator variable that takes the value of one if a company’s financial constraint level (measured using the Kaplan and Zingales (1997) index in Columns 1 and 2, and Whited and Wu (2006) index in Columns 3 and 4) is greater than its respective Fama and French (1997) industry median, and zero otherwise. Across Columns 1-4, the coefficients associated with the variable of interest, *Auditor Litigation* ( $0/1$ )  $\times$  *FinCon* ( $0/1$ ), are all consistent with our expectations. The positive effect of auditor litigation risk on financial leverage is more pronounced for firms that are financially constrained.

PLEASE INSERT TABLE 6 HERE

### 5.5.2 Auditor litigation risk and credit rating

We also examine the effect of auditor litigation risk on firm credit ratings and the likelihood of receiving an investment-grade rating. Rating agencies consider several factors in making adjustments to ratings, including, financial transparency, financial reporting quality, and corporate governance (Moody’s, 2007). If auditor litigation risk is an effective monitoring device and improves financial reporting quality, then, we expect a positive relation between higher auditor litigation risk and credit ratings.

In Columns 1 and 2 of Table 7, we construct a *Credit Rating* dependent variable, which is an ordinal variable based on S&P long-term credit rating and translated to a numeric value ranging from 1 (rating D) to 22 (AAA), where high values correspond to high ratings. Because *Credit Rating* is an ordinal variable, we estimate Columns 1 and 2 by ordered logit regression.<sup>5</sup> In Columns 3 and 4, we examine whether auditor litigation risk affects a firm’s likelihood of receiving an investment-grade rating versus a junk-bond

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<sup>5</sup>The results hold if we use an ordered probit regression

rating. Such demarcation is important because firms incur greater costs if they receive a speculative rating. Here, the dependent variable is *Investment Grade (0/1)*, an indicator variable, which equals one if a firm’s credit rating is BBB or better, and zero otherwise. Because *Investment Grade (0/1)* is an indicator variable, we estimate Columns 3 and 4 by logit regression.

The regression results are reported in Table 7. Across Columns 1-4, the coefficients on the variable of interest *Auditor Litigation (0/1)* are positive and significant at either the 1% or 5% level. The results are thus consistent with our expectation that firms in high auditor litigation risk environment receive higher credit ratings and are more likely to receive an investment-grade rating.

**PLEASE INSERT TABLE 7 HERE**

### 5.5.3 Auditor litigation risk and cost of debt

To further explore the mechanism by which auditor litigation risk affects firm financial leverage, we examine the effect of increased auditor legal liability on cost of debt. Debtholders demand compensation for both the risk they bear and the agency problems they face. If the quality of accounting information can affect creditors’ pricing decisions and higher auditor legal liability improves financial reporting quality (Yu, 2011; Zhang, 2007), then we expect a negative relation between higher auditor litigation risk and cost of debt. Following Francis et al. (2005), we construct two cost of debt measures. *IDR1* is the ratio of interest expense to interest-bearing long-term debt outstanding and *IDR2* is the ratio of interest expense to interest-bearing total debt outstanding. Table 8 presents the results. Across Columns 1-4, the negative and statistically significant coefficients associated with *Auditor Litigation (0/1)* are consistent with our expectations, suggesting that treatment firms face lower cost of debt following higher auditor litigation shocks.

**PLEASE INSERT TABLE 8 HERE**

## 5.6 Auditor litigation risk and the use of debt of different maturities

We test Hypothesis 2 using an ordered probit model which estimates the relationship between auditor litigation risk and our categorical *ZerobyMaturity* variable. The dependent *ZerobyMaturity* categorical variable is increasing in zero debt of shorter maturities, shows use of debt with different maturities by firm and does not measure when the debt actually matures. Table 9 reports the estimation results of the ordered probit model. The coefficients associated with *Auditor Litigation* (0/1) are negative and statistically significant at less than the 1% level. The negative coefficients of *Auditor Litigation* (0/1) suggest that when auditor litigation risk increases, the probability of a firm using debt of shorter (longer) maturity decreases (increases). Overall, our estimation results support Hypothesis 2.

PLEASE INSERT TABLE 9 HERE

## 6 Robustness tests

### 6.1 GLM and zero inflated beta model

Our leverage measures could be proportion variables bounded between zero and one. Cook et al. (2008) address some common specification errors in using a linear prediction equation to model a proportional or fractional variable and show the conditional expectation is a nonlinear function of the independent variables. To mitigate the estimation problems caused by a bounded dependent variable, we use a GLM (Generalized Linear Model) with a logit link function to re-estimate the baseline financial leverage regressions. It can be seen in Columns 1 and 2 of Panel A of Table 10 that the coefficients for *Auditor Litigation* (0/1) are positive and statistically significant at less than 5% and 1% level, respectively.

In addition to the fractional dependent variables issue, some of our proportion depen-

dent variables may contain a considerable number of zero values. To address this issue, we follow [Cook et al. \(2008\)](#) and use a zero-inflated beta model to test Hypothesis 1, as some of the debt ratios may cluster at zero. In Columns 3 and 4 of Panel B of Table 10, the coefficients associated with *Auditor Litigation (0/1)* are positive and statistically significant at less than the 5% and 1% level, respectively. These results are qualitatively identical to the main results in Table 2.

## 6.2 Entropy balancing approach

To address the potential concern that the treated firms are inherently different from the untreated firms, we apply entropy balancing, a multivariate matching approach, as a re-weighting technique to ensure comparability of the treatment and the control group.<sup>6</sup> Entropy balancing assigns a weight to each observation in the control group so that the moments of the control variables in the reweighted control group match those of the treated group ([Hainmueller and Xu, 2013](#); [Hainmueller, 2012](#)). The weights are calculated so that a loss function is minimized under a set of pre-specified balance constraints imposed on the sample moments of the control variables. In this paper, the control variables' first three moments (mean, variance and skewness) of the treatment and the control group are balanced. The main advantages of using entropy balancing rather than propensity matching techniques are an increase in balance quality, and the redundancy of potentially tedious balance checks since the covariate moments are automatically balanced by the algorithm ([Hainmueller, 2012](#)). Panel B of Table 10 reports the results from the difference-in-differences combined with entropy balancing specifications. The results are qualitatively similar to the baseline findings.

**PLEASE INSERT TABLE 10 HERE**

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<sup>6</sup>The entropy balancing technique has been widely used in prior studies such as [Boasiako et al. \(2022\)](#); [McMullin and Schonberger \(2020\)](#); [Jiang et al. \(2018\)](#); [Freier et al. \(2015\)](#)

### 6.3 Tighter time frame

We test whether the baseline results hold to a tighter time frame. In order to examine the impact of auditor litigation risk on leverage within a short horizon around the precedent-setting state courts rulings on auditor legal liability, we restrict the sample for the baseline regression to the time period of 1978-2000. Thus, five years before the first state court ruling and five years after the last ruling. We report the results in Columns 1-4 of Panel C in Table 10. The coefficients of *Auditor Litigation* (0/1) remain positive and significant, suggesting that our baseline findings are robust to a tighter time frame.

### 6.4 Auditor legal liability - evidence from federal cases

As an additional robustness test, we examine the effect of auditor legal liability on leverage with evidence from federal level cases narrowing the scope of Rule 10b-5 against private actors and imposing different levels of auditor legal liability across the various circuits of the federal courts. Specifically, in the spirit of [Honigsberg et al. \(2020\)](#), we focus on the Supreme Court’s 2007 and 2011 rulings in *Tellabs, Inc. v. Makor Issues & Rights, Ltd.* (551 US 308 [2007]) and *Janus Capital Group, Inc. v. First Derivative Traders* (564 US 135 [2011]), respectively. Both cases had potentially far-reaching effects on auditors’ liability under Rule 10b-5 ([Honigsberg et al., 2020](#)). While the ruling in *Tellabs* imposed a new pleading standard, *Janus* requires plaintiffs to establish liability based only on statements directly attributed to the auditor. We expect that because these federal cases affect shareholder rights (securities class actions) they should have a much smaller effect on leverage compared to the state-level third-party auditor legal liability.

We report the results in Panel D of Table 10. In line with [Honigsberg et al. \(2020\)](#), our sample period is from 1996 to 2016 and the variables of interest are the two time-trend variables, *Post-Janus* (0/1) and *Post-Tellabs* (0/1). *Post-Janus* (0/1) equals one in 2012–2016 and *Post-Tellabs* (0/1) equals one in 2008–2016. Across Columns 1-4 of Panel D in Table 10, the coefficients associated with *Post-Janus* (0/1) and *Post-Tellabs* (0/1) are positive but only weakly significant at the 10%, thus giving more validity to



our use of state-level third-party auditor legal liability.

## 6.5 Alternative financial leverage measures

To ensure that our baseline results are not sensitive to the way we construct the financial leverage variables, we re-estimate the baseline financial leverage regressions with three alternative measures of financial leverage, which include *BDR3*, *BDR4*, and *MDR1*. *BDR3* is the ratio of short plus long-term debt to short plus long-term debt plus common shareholders' equity. (*BDR4*) is measured as total long-term debt divided by the total long-term debt plus common shareholders' equity. As explained earlier, both *BDR3* and (*BDR4*) are consistent with the [Welch \(2011\)](#) critique as the denominators exclude non-financial liabilities. *MDR1* is the all liabilities market debt ratio measured as the ratio of total liabilities to total assets minus common shareholders' equity plus market value of common stock. We present the findings from using these alternative leverage measures in Panel A of Table 11. Across Columns 1–6, the results of these alternative measures of leverage are qualitatively similar to the baseline findings.

## 6.6 Controlling for Private Securities Litigation Reform Act of 1995 (PSLRA) and exclusion of Delaware firms

It is also possible that since holders of firms' public securities may also sue under federal law, changes in auditor litigation risk will not matter for holders of public debt. Thus, auditor litigation risk at the state level may be only relevant for private lenders and other third parties, leading to little or no impact on the firm's overall capital structure. To address this concern, we rerun our financial leverage regressions to control for the passage of the Private Securities Litigation Reform Act. We include *PSLRA* (0/1), an indicator that takes a value of one for the years in which PSLRA is effective, and zero otherwise. We report the findings in Panel B of Table 11. Across Columns 1–3, the coefficients of *Auditor Litigation* (0/1) remain positive and significant at the 1% level, suggesting that

our findings are robust to controlling for the ability of public debt holders to also sue under federal law.

Many firms choose to incorporate in Delaware to benefit from its corporation-friendly laws and tax structure (Daines, 2001). This might raise a concern that our observed positive relationship between higher auditor litigation risk and financial leverage is confounded by the Delaware effect. To mitigate this concern, we rerun financial leverage regressions using a subsample that excludes firms incorporated in Delaware and report the results in Columns 4-6 of Panel B of Table 11. We find that the coefficients of *Auditor Litigation* (0/1) are positive and statistically significant at either the 1% or 5% level in all models, suggesting that our finding is not influenced by the Delaware effect.

## 6.7 Using alternative measures of debt maturity

Panel C of Table 11 reports the estimation results of re-testing Hypothesis 2 using different measures of debt maturity,  $DebtMat_D$  and  $DebtMat_L$ . In Columns 1 and 2, we use ordinary least squares (OLS) regressions. In columns 3 and 4, we use GLM with a logit link function. In columns 5 and 6, we use a zero inflated beta model. Across all Columns (except Column 3), the coefficients associated with *Auditor Litigation* (0/1) are positive and statistically significant at less than either the 1% and 5% levels. The positive coefficients of *Auditor Litigation* (0/1) suggest that when auditor litigation risk increases, firms increase the use of debt of longer maturity. Overall, these results support Hypothesis 2.

PLEASE INSERT TABLE 11 HERE

## 6.8 Accounting for net debt issues

Finally, another potential concern with our baseline results is that the change in financial leverage could be driven by either the change in debt or equity financing or even both. To ascertain that our results are driven by an increase in firms' debt financing rather

than a decrease in equity value or equity financing, we examine the effect of the auditor litigation risk on net debt issues. We follow [Boasiako et al. \(2022\)](#) and measure net debt issues as the difference between long-term debt issuance and long-term debt reduction, scaled by the book value of assets. In our results, which we do not report to maintain brevity, we continue to find positive and statistically significant coefficients associated with *Auditor Litigation* (0/1).

## 7 Conclusion

In this paper, we investigate whether auditor litigation risk affects firms' capital structure and their use of debt of different maturities. Prior research shows that increased risk of auditor litigation improves both financial reporting and audit quality. This helps credit suppliers to assess firm's performance and the risk of default, which can reduce information asymmetry, facilitate the process of debt contracting, and reduce the agency cost of debt. Our findings show that higher auditor litigation risk is associated with increased use of financial leverage. Our results also show that when auditor litigation risk increases, the likelihood of a firm using debt of shorter (longer) maturity decreases (increases). Furthermore, firms in states with expanded auditor litigation risk adjust more closely to their optimal capital structure. Our results are robust to alternative measures of leverage and alternative econometric methods. They also hold after controlling for state economic conditions, year, industry, and state fixed effects. Overall, our paper shows that increased auditor litigation risk affects firms' corporate financing decisions by tilting their capital structure dynamics towards the use of more debt. As we state in the introduction of the paper, establishing a connection between auditor liability and leverage can be a challenging task, especially due to the multiplicity of factors that could influence auditor liability. This notwithstanding, our empirical analysis and the accompanying robustness tests help to support our predictions in the presence of these handicaps.

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**Table 1: Summary statistics**

This table provides summary statistics for the variables used in our analysis. The sample period is from 1973 to 2005. Panel A contains statistics for the key variables used in the primary analyses. Columns 1 and 2 of Panel B respectively report the mean values for the treatment states in high and low litigation periods, and Column 3 tabulates tests of differences in means between high and low litigation regimes for the treatment states. Refer to Appendix C for variable definitions. \*\*\* Denote statistical significance at the 1% level.

Panel A: Full sample summary statistics						
Variables	(1)	(2)	(3)	(4)	(5)	(6)
	N	Mean	Median	Std. Dev	25th percentile	75th percentile
<i>BDR1</i>	121,829	0.4989	0.4939	0.2511	0.3162	0.6490
<i>BDR2</i>	121,660	0.2430	0.2132	0.2107	0.0580	0.3677
<i>BDR3</i>	121,658	0.3397	0.2984	0.3087	0.0765	0.5075
<i>BDR4</i>	121,787	0.2716	0.2071	0.2852	0.0180	0.4245
<i>MDR1</i>	121,829	0.3856	0.3623	0.2478	0.1706	0.5767
<i>Auditor Litigation (0/1)</i>	121,829	0.1952	0.0000	0.3964	0.000	0.000
<i>Firm Size</i>	121,829	4.5177	4.3373	2.1337	2.9792	5.8809
<i>Market-to-book</i>	121,829	2.1956	1.3978	2.4363	0.9906	2.2992
<i>LN(Firm Age)</i>	121,829	1.9607	2.0794	1.0230	1.0986	2.7726
<i>Tangibility</i>	121,829	0.6031	0.5144	0.4217	0.2861	0.8310
<i>R&amp;D Expenditure</i>	121,829	0.0419	0.0000	0.0924	0.0000	0.0393
<i>Profitability</i>	121,829	0.0968	0.1302	0.2211	0.0411	0.2084
<i>Cash</i>	121,829	0.1738	0.0768	0.2478	0.0258	0.2155
<i>Dividend Paying Firms (0/1)</i>	121,829	0.3632	0.0000	0.4809	0.0000	1.0000
<i>State GDP Growth</i>	108,471	0.0540	0.0358	0.0982	0.0178	0.0552
Panel B: Mean differences for the treatment						
	High litigation risk period	Low litigation risk period	Difference (1-2)			
<i>BDR1</i>	0.5134	0.4637	0.0497***			
<i>BDR2</i>	0.2524	0.2132	0.0392***			
<i>BDR3</i>	0.3534	0.2951	0.0583***			
<i>BDR4</i>	0.2784	0.2330	0.0454***			
<i>MDR1</i>	0.3816	0.3553	0.0263***			
<i>Firm Size</i>	4.3246	4.2592	0.0654***			
<i>Market-to-book</i>	2.2857	2.4374	-0.1518***			
<i>LN(Firm Age)</i>	1.9356	1.8811	0.0545***			
<i>Tangibility</i>	0.5729	0.5361	0.0368***			
<i>R&amp;D Expenditure</i>	0.0410	0.065	-0.0240***			
<i>Profitability</i>	0.0914	0.0737	0.0177***			
<i>Cash</i>	0.1599	0.2284	-0.0684***			
<i>Dividend Paying Firms (0/1)</i>	0.3062	0.3333	-0.0271***			
<i>State GDP Growth</i>	0.0546	0.0581	-0.0035***			

**Table 2: Auditor litigation risk and financial leverage: Baseline regressions**

This table reports the effect of an increase in auditor legal liability on clients' financial leverage. The dependent variable is financial leverage (measured as either *BDR1* or *BDR2*). *BDR1* is the all liabilities book debt ratio measured as the ratio of total liabilities to total assets. *BDR2* is the ratio of total debt (short plus long-term debt) to total assets. *Auditor Litigation (0/1)* is an indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties. It moves from one to zero when (and after) states reduce auditor legal liability to third parties. *Auditor Litigation (0/1)* remains zero for the states that do not change auditors' litigation risk during the sample period. All continuous variables are winsorized at the 1% level. Standard errors, clustered by firm, are shown in parentheses, with 1%, 5%, and 10% levels of statistical significance denoted by \*\*\*, \*\*, and \*, respectively.

Variables	Dependent Variable: <i>Financial Leverage</i>			
	BDR1		BDR2	
	(1)	(2)	(3)	(4)
<i>Auditor Litigation (0/1)</i>	0.0135*** (0.0042)	0.0112*** (0.0043)	0.0112*** (0.0037)	0.0102*** (0.0038)
<i>Firm Size</i>	0.0301*** (0.0010)	0.0302*** (0.0010)	0.0240*** (0.0009)	0.0238*** (0.0009)
<i>Market-to-book</i>	0.0099*** (0.0007)	0.0098*** (0.0007)	0.0045*** (0.0005)	0.0042*** (0.0005)
<i>LN(Firm Age)</i>	0.0067*** (0.0016)	0.0095*** (0.0017)	-0.0096*** (0.0014)	-0.0086*** (0.0015)
<i>Tangibility</i>	0.0333*** (0.0045)	0.0380*** (0.0047)	0.0673*** (0.0040)	0.0691*** (0.0041)
<i>R&amp;D Expenditure</i>	-0.0838*** (0.0211)	-0.0767*** (0.0214)	-0.2038*** (0.0162)	-0.1940*** (0.0163)
<i>Profitability</i>	-0.2705*** (0.0071)	-0.2712*** (0.0072)	-0.1853*** (0.0057)	-0.1773*** (0.0059)
<i>Cash</i>	-0.4101*** (0.0069)	-0.4071*** (0.0069)	-0.2663*** (0.0054)	-0.2589*** (0.0055)
<i>Dividend Paying Firms (0/1)</i>	-0.1056*** (0.0036)	-0.1057*** (0.0039)	-0.1046*** (0.0033)	-0.1030*** (0.0035)
<i>State GDP Growth</i>		0.0871*** (0.0315)		0.0477* (0.0267)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
<i>Observations</i>	121,829	108,471	121,660	108,303
<i>R</i> <sup>2</sup>	0.2807	0.2816	0.2599	0.2570

**Table 3: Auditor litigation risk and financial leverage: Placebo test**

This table reports the placebo test of the effect of an increase in auditor legal liability on clients' financial leverage. The dependent variable is financial leverage (measured as either *BDR1* or *BDR2*). *BDR1* is the all liabilities book debt ratio measured as the ratio of total liabilities to total assets. *BDR2* is the ratio of total debt (short plus long-term debt) to total assets. *Auditor Litigation (0/1)* is an indicator variable that takes a value of one for firms incorporated in a state that has been randomly assigned to a year in which auditor legal liability to third parties is expanded. It moves from one to zero when (and after) auditor legal liability to third parties is reduced. All continuous variables are winsorized at the 1% level. Standard errors, clustered by firm, are shown in parentheses, with 1%, 5%, and 10% levels of statistical significance denoted by \*\*\*, \*\*, and \*, respectively.

Variables	Dependent Variable: <i>Financial Leverage</i>			
	BDR1		BDR2	
	(1)	(2)	(3)	(4)
<i>Auditor Litigation (0/1)</i>	0.0021 (0.0018)	0.0020 (0.0018)	0.0000 (0.0015)	-0.0000 (0.0015)
<i>Firm Size</i>	0.0301*** (0.0010)	0.0302*** (0.0010)	0.0241*** (0.0009)	0.0238*** (0.0009)
<i>Market-to-book</i>	0.0100*** (0.0007)	0.0098*** (0.0007)	0.0045*** (0.0005)	0.0043*** (0.0005)
<i>LN(Firm Age)</i>	0.0067*** (0.0016)	0.0095*** (0.0017)	-0.0096*** (0.0014)	-0.0086*** (0.0015)
<i>Tangibility</i>	0.0332*** (0.0045)	0.0379*** (0.0047)	0.0672*** (0.0040)	0.0691*** (0.0041)
<i>R&amp;D Expenditure</i>	-0.0863*** (0.0211)	-0.0784*** (0.0214)	-0.2058*** (0.0162)	-0.1956*** (0.0163)
<i>Profitability</i>	-0.2704*** (0.0071)	-0.2712*** (0.0072)	-0.1852*** (0.0057)	-0.1773*** (0.0059)
<i>Cash</i>	-0.4115*** (0.0068)	-0.4081*** (0.0069)	-0.2675*** (0.0054)	-0.2599*** (0.0055)
<i>Dividend Paying Firms (0/1)</i>	-0.1058*** (0.0036)	-0.1058*** (0.0039)	-0.1047*** (0.0033)	-0.1031*** (0.0035)
<i>State GDP Growth</i>		0.0967*** (0.0316)		0.0563** (0.0267)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
<i>Observations</i>	121,829	108,471	121,660	108,303
<i>R<sup>2</sup></i>	0.2805	0.2815	0.2597	0.2568

**Table 4: Auditor litigation risk and financial leverage: Dynamic models**

This table reports the results of the dynamic financial leverage regressions. The dependent variable is financial leverage (measured as either *BDR1* or *BDR2*). *BDR1* is the all liabilities book debt ratio measured as the ratio of total liabilities to total assets. *BDR2* is the ratio of total debt (short plus long-term debt) to total assets. *Auditor Litigation*  $(0/1)^{-2}$ , *Auditor Litigation*  $(0/1)^{-1}$ , *Auditor Litigation*  $(0/1)^0$ , *Auditor Litigation*  $(0/1)^{+1}$  and *Auditor Litigation*  $(0/1)^{2+}$ , takes the value of one two years prior to a state expanding auditor legal liability to third parties, one year prior to a state expanding auditor legal liability to third parties, year auditor legal liability to third parties expansion, one year post auditor legal liability to third parties expansion, and two years or more post auditor legal liability to third parties expansion, respectively, and zero otherwise. All continuous variables are winsorized at the 1% level. Standard errors, clustered by firm, are shown in parentheses, with 1%, 5%, and 10% levels of statistical significance denoted by \*\*\*, \*\*, and \*, respectively.

Variables	Dependent Variable: <i>Financial Leverage</i>			
	BDR1		BDR2	
	(1)	(2)	(3)	(4)
<i>Auditor Litigation</i> $(0/1)^{-2}$	0.0080 (0.0057)	0.0065 (0.0060)	0.0081 (0.0050)	0.0079 (0.0053)
<i>Auditor Litigation</i> $(0/1)^{-1}$	-0.0012 (0.0067)	-0.0023 (0.0067)	0.0046 (0.0057)	0.0041 (0.0058)
<i>Auditor Litigation</i> $(0/1)^0$	0.0172** (0.0067)	0.0157** (0.0068)	0.0176*** (0.0058)	0.0169*** (0.0059)
<i>Auditor Litigation</i> $(0/1)^{+1}$	0.0136** (0.0065)	0.0122* (0.0065)	0.0119** (0.0054)	0.0113** (0.0055)
<i>Auditor Litigation</i> $(0/1)^{2+}$	0.0092*** (0.0034)	0.0076** (0.0035)	0.0078*** (0.0029)	0.0072** (0.0030)
<i>Firm Size</i>	0.0301*** (0.0010)	0.0302*** (0.0010)	0.0241*** (0.0009)	0.0238*** (0.0009)
<i>Market-to-book</i>	0.0100*** (0.0007)	0.0098*** (0.0007)	0.0045*** (0.0005)	0.0042*** (0.0005)
<i>LN(Firm Age)</i>	0.0067*** (0.0016)	0.0094*** (0.0017)	-0.0096*** (0.0014)	-0.0086*** (0.0015)
<i>Tangibility</i>	0.0332*** (0.0045)	0.0379*** (0.0047)	0.0672*** (0.0040)	0.0691*** (0.0041)
<i>R&amp;D Expenditure</i>	-0.0841*** (0.0211)	-0.0770*** (0.0214)	-0.2039*** (0.0162)	-0.1942*** (0.0163)
<i>Profitability</i>	-0.2707*** (0.0071)	-0.2714*** (0.0072)	-0.1856*** (0.0057)	-0.1776*** (0.0059)
<i>Cash</i>	-0.4104*** (0.0069)	-0.4073*** (0.0069)	-0.2665*** (0.0054)	-0.2591*** (0.0055)
<i>Dividend Paying Firms</i> $(0/1)$	-0.1056*** (0.0036)	-0.1057*** (0.0039)	-0.1046*** (0.0032)	-0.1029*** (0.0035)
<i>State GDP Growth</i>		0.0757** (0.0312)		0.0344 (0.0264)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
<i>Observations</i>	121,829	108,471	121,660	108,303
<i>R</i> <sup>2</sup>	0.2807	0.2816	0.2599	0.2570

**Table 5: Auditor litigation risk and optimal capital structure**

This table reports the results of the underleverage regressions. Panel A reports the results from our linear probability model. The dependent variable in Panel A is the underleverage dummy that takes a value of one for firms with actual leverage below the optimal leverage, and zero otherwise. In Panel A, the optimal leverage is estimated as the fitted value of the financial leverage regression. In Panel B, the optimal leverage is estimated as the fitted value of the industry contemporaneous median financial leverage. *Auditor Litigation (0/1)* is an indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties; it moves from one to zero when (and after) states reduce auditor legal liability to third parties. *Auditor Litigation (0/1)* remains zero for the states that do not change auditors' litigation risk during the sample period. All continuous variables are winsorized at the 1% level. Standard errors, clustered by firm, are shown in parentheses, with 1%, 5%, and 10% levels of statistical significance denoted by \*\*\*, \*\*, and \*, respectively.

Dependent Variable: <i>Underleverage (0/1)</i>				
Panel A: Financial leverage residuals				
Variables	BDR1		BDR2	
	(1)	(2)	(3)	(4)
<i>Auditor Litigation (0/1)</i>	-0.1084*** (0.0401)	-0.0900** (0.0399)	-0.1266*** (0.0391)	-0.1136*** (0.0392)
<i>Firm Size</i>	-0.0427*** (0.0096)	-0.0359*** (0.0097)	-0.0617*** (0.0096)	-0.0492*** (0.0097)
<i>Market-to-book</i>	-0.0052 (0.0049)	-0.0031 (0.0049)	-0.0131*** (0.0049)	-0.0094* (0.0049)
<i>LN(Firm Age)</i>	-0.0038 (0.0145)	-0.0177 (0.0149)	-0.0144 (0.0143)	-0.0180 (0.0147)
<i>Tangibility</i>	-0.0220 (0.0391)	-0.0095 (0.0397)	-0.0785** (0.0396)	-0.0820** (0.0400)
<i>R&amp;D Expenditure</i>	-1.0621*** (0.1589)	-1.1009*** (0.1584)	-0.8631*** (0.1636)	-0.9078*** (0.1635)
<i>Profitability</i>	0.1225** (0.0550)	0.0535 (0.0552)	0.2635*** (0.0560)	0.1524*** (0.0564)
<i>Cash</i>	0.1514*** (0.0537)	0.1129** (0.0538)	0.0745 (0.0572)	0.0328 (0.0569)
<i>Dividend Paying Firms (0/1)</i>	0.2038*** (0.0356)	0.1895*** (0.0381)	0.2838*** (0.0358)	0.2729*** (0.0385)
<i>State GDP Growth</i>		-1.0821*** (0.2986)		-0.5859* (0.2994)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
Observations	121,829	108,471	121,829	108,471
Pseudo R <sup>2</sup>	0.0385	0.0378	0.0381	0.0377
Panel B: Industry-adjusted leverage				
<i>Auditor Litigation (0/1)</i>	-0.1238*** (0.0435)	-0.0939** (0.0434)	-0.1155*** (0.0418)	-0.1112*** (0.0419)
<i>Firm Size</i>	-0.3095*** (0.0105)	-0.3093*** (0.0106)	-0.2549*** (0.0105)	-0.2487*** (0.0105)
<i>Market-to-book</i>	-0.0569*** (0.0064)	-0.0542*** (0.0064)	-0.0299*** (0.0062)	-0.0272*** (0.0061)
<i>LN(Firm Age)</i>	-0.0415*** (0.0151)	-0.0661*** (0.0156)	0.0935*** (0.0149)	0.0847*** (0.0154)
<i>Tangibility</i>	-0.2675*** (0.0422)	-0.3171*** (0.0427)	-0.7707*** (0.0442)	-0.7878*** (0.0447)
<i>R&amp;D Expenditure</i>	0.9830*** (0.2005)	0.8475*** (0.1989)	2.3524*** (0.2049)	2.2005*** (0.2014)
<i>Profitability</i>	2.0929*** (0.0684)	2.0719*** (0.0685)	1.7144*** (0.0680)	1.5873*** (0.0677)
<i>Cash</i>	3.8898*** (0.0910)	3.8004*** (0.0903)	3.7836*** (0.0961)	3.6167*** (0.0942)
<i>Dividend Paying Firms (0/1)</i>	0.8439*** (0.0378)	0.8043*** (0.0405)	0.9449*** (0.0369)	0.9181*** (0.0396)
<i>State GDP Growth</i>		-0.6422** (0.3151)		-0.3053 (0.3180)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
Observations	121,829	108,471	121,829	108,471
Pseudo R <sup>2</sup>	0.133	0.1348	0.1358	0.1339

**Table 6: The role of external finance dependence and financial constraints**

This table reports results from our cross-sectional analyses. In Panel A, external finance dependence is the industry-median proportion of investment not financed by cash flows from operations. *High ExtFin (0/1)* is an indicator variable that takes the value of one if a company's external finance dependence level is greater than its Fama and French (1997) respective industry median, zero otherwise. In Panel B, *FinCon (0/1)* is an indicator variable that takes the value of one if a company's financial constraint level (measured using the Kaplan and Zingales (1997) index in Columns 1 and 2, and Whited and Wu (2006) index in Columns 3 and 4) is greater than its respective Fama and French (1997) industry median, zero otherwise. *Auditor Litigation (0/1)* is an indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties; it moves from one to zero when (and after) states reduce auditor legal liability to third parties. *Auditor Litigation (0/1)* remains zero for the states that do not change auditors' litigation risk during the sample period. All continuous variables are winsorized at the 1% level. Standard errors, clustered by firm, are shown in parentheses, with 1%, 5%, and 10% levels of statistical significance denoted by \*\*\*, \*\*, and \*, respectively.

Dependent Variable: <i>Financial Leverage</i>				
Panel A: External finance dependence				
Variables	BDR1		BDR2	
	(1)	(2)	(3)	(4)
<i>Auditor Litigation (0/1)</i>	0.0056 (0.0053)	0.0052 (0.0054)	0.0037 (0.0046)	0.0038 (0.0046)
<i>Auditor Litigation (0/1) × High ExtFin (0/1)</i>	0.0163*** (0.0063)	0.0126** (0.0062)	0.0156*** (0.0055)	0.0135** (0.0054)
<i>High ExtFin (0/1)</i>	-0.0105*** (0.0039)	-0.0107*** (0.0038)	-0.0041 (0.0034)	-0.0042 (0.0033)
<i>Firm Size</i>	0.0301*** (0.0010)	0.0302*** (0.0010)	0.0241*** (0.0009)	0.0238*** (0.0009)
<i>Market-to-book</i>	0.0099*** (0.0007)	0.0098*** (0.0007)	0.0045*** (0.0005)	0.0042*** (0.0005)
<i>LN(Firm Age)</i>	0.0067*** (0.0016)	0.0095*** (0.0017)	-0.0096*** (0.0014)	-0.0086*** (0.0015)
<i>Tangibility</i>	0.0335*** (0.0045)	0.0381*** (0.0047)	0.0673*** (0.0040)	0.0692*** (0.0041)
<i>R&amp;D Expenditure</i>	-0.0837*** (0.0211)	-0.0767*** (0.0214)	-0.2036*** (0.0162)	-0.1940*** (0.0163)
<i>Profitability</i>	-0.2707*** (0.0071)	-0.2714*** (0.0072)	-0.1856*** (0.0057)	-0.1775*** (0.0059)
<i>Cash</i>	-0.4100*** (0.0069)	-0.4070*** (0.0069)	-0.2663*** (0.0054)	-0.2589*** (0.0055)
<i>Dividend Paying Firms (0/1)</i>	-0.1056*** (0.0036)	-0.1056*** (0.0039)	-0.1045*** (0.0032)	-0.1030*** (0.0035)
<i>State GDP Growth</i>		0.0804*** (0.0310)		0.0363 (0.0262)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
<i>Observations</i>	121,829	108,471	121,660	108,303
<i>R</i> <sup>2</sup>	0.2809	0.2817	0.2601	0.2571

Dependent Variable: <i>Financial Leverage</i>				
Panel B: Financial constraints	<i>BDR1/KZindex</i>	<i>BDR2/KZindex</i>	<i>BDR1/WWindex</i>	<i>BDR2/WWindex</i>
<i>Auditor Litigation (0/1)</i>	0.0058 (0.0047)	0.0061 (0.0041)	0.0070 (0.0048)	0.0043 (0.0041)
<i>Auditor Litigation (0/1) × FinCon (0/1)</i>	0.0129** (0.0058)	0.0092* (0.0050)	0.0118* (0.0067)	0.0173*** (0.0058)
<i>FinCon (0/1)</i>	-0.0289*** (0.0031)	-0.0237*** (0.0026)	0.0022 (0.0034)	-0.0013 (0.0031)
<i>Firm Size</i>	0.0302*** (0.0010)	0.0238*** (0.0009)	0.0302*** (0.0010)	0.0238*** (0.0009)
<i>Market-to-book</i>	0.0096*** (0.0007)	0.0041*** (0.0005)	0.0098*** (0.0007)	0.0042*** (0.0005)
<i>LN(Firm Age)</i>	0.0097*** (0.0017)	-0.0084*** (0.0015)	0.0095*** (0.0017)	-0.0086*** (0.0015)
<i>Tangibility</i>	0.0386*** (0.0047)	0.0696*** (0.0041)	0.0379*** (0.0047)	0.0691*** (0.0041)
<i>R&amp;D Expenditure</i>	-0.0743*** (0.0214)	-0.1921*** (0.0163)	-0.0770*** (0.0214)	-0.1948*** (0.0163)
<i>Profitability</i>	-0.2720*** (0.0072)	-0.1780*** (0.0059)	-0.2714*** (0.0072)	-0.1773*** (0.0059)
<i>Cash</i>	-0.4054*** (0.0069)	-0.2575*** (0.0055)	-0.4070*** (0.0069)	-0.2590*** (0.0055)
<i>Dividend Paying Firms (0/1)</i>	-0.1056*** (0.0039)	-0.1029*** (0.0035)	-0.1057*** (0.0039)	-0.1031*** (0.0035)
<i>State GDP Growth</i>	0.0760** (0.0314)	0.0389 (0.0267)	0.0898*** (0.0315)	0.0516* (0.0266)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
<i>Observations</i>	108,471	108,303	108,471	108,303
<i>R<sup>2</sup></i>	0.2829	0.2582	0.2817	0.2572

**Table 7: Auditor litigation risk and credit rating**

This table reports the results of the credit rating regressions. The dependent variable in Columns 1 and 2 is *Credit Rating*, an ordinal variable based on S&P long-term credit rating and translated to a numeric value ranging from 1 (rating D) to 22 (AAA), where high values correspond to high ratings. We estimate Columns 1 and 2 by an ordered logit regression. In Columns 3 and 4, the dependent variable is *Investment Grade (0/1)*, an indicator variable set to one if a firm's credit rating is BBB or better, and zero otherwise. We estimate Columns 3 and 4 by a logistic regression. *Auditor Litigation (0/1)* is an indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties; it moves from one to zero when (and after) states reduce auditor legal liability to third parties. *Auditor Litigation (0/1)* remains zero for the states that do not change auditors' litigation risk during the sample period. All continuous variables are winsorized at the 1% level. Standard errors, clustered by firm, are shown in parentheses, with 1%, 5%, and 10% levels of statistical significance denoted by \*\*\*, \*\*, and \*, respectively.

Variables	<i>Credit Rating</i>		<i>Investment Grade (0/1)</i>	
	(1)	(2)	(3)	(4)
<i>Auditor Litigation (0/1)</i>	0.2348** (0.0940)	0.2336** (0.0939)	0.1536** (0.0600)	0.1570*** (0.0599)
<i>Firm Size</i>	1.3906*** (0.0265)	1.3907*** (0.0266)	0.0964*** (0.0121)	0.0965*** (0.0121)
<i>Market-to-book</i>	-0.0042 (0.0161)	-0.0045 (0.0162)	0.0756*** (0.0057)	0.0757*** (0.0057)
<i>LN(Firm Age)</i>	-0.0259 (0.0325)	-0.0259 (0.0325)	-1.0216*** (0.0264)	-1.0216*** (0.0264)
<i>Tangibility</i>	-0.0009 (0.0826)	-0.0014 (0.0825)	-0.1658*** (0.0476)	-0.1654*** (0.0477)
<i>R&amp;D Expenditure</i>	-1.5817** (0.6330)	-1.5773** (0.6333)	-0.5729*** (0.1574)	-0.5753*** (0.1575)
<i>Profitability</i>	0.2740 (0.2200)	0.2750 (0.2200)	-0.5755*** (0.0594)	-0.5752*** (0.0594)
<i>Cash</i>	-1.0777*** (0.1635)	-1.0786*** (0.1635)	-0.4992*** (0.0581)	-0.4994*** (0.0581)
<i>Dividend Paying Firms (0/1)</i>	0.0312 (0.0656)	0.0311 (0.0656)	0.5793*** (0.0446)	0.5794*** (0.0446)
<i>State GDP Growth</i>		0.4618 (0.4553)		-0.6725* (0.3844)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
<i>Observations</i>	71,032	71,032	108,613	108,613
<i>Pseudo R<sup>2</sup></i>	0.2777	0.2777	0.3706	0.3706



**Table 8: Auditor litigation risk and cost of debt**

This table reports the results of the cost of debt regressions. The dependent variable is interest expense (measured as either *IDR1* or *IDR2*). *IDR1* is the ratio of interest expense to interest-bearing long-term debt outstanding. *IDR2* is the ratio of interest expense to interest-bearing total debt outstanding. *Auditor Litigation (0/1)* is an indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties; it moves from one to zero when (and after) states reduce auditor legal liability to third parties. *Auditor Litigation (0/1)* remains zero for the states that do not change auditors' litigation risk during the sample period. All continuous variables are winsorized at the 1% level. Standard errors, clustered by firm, are shown in parentheses, with 1%, 5%, and 10% levels of statistical significance denoted by \*\*\*, \*\*, and \*, respectively.

Variables	Dependent Variable: <i>Cost of Debt</i>			
	IDR1		IDR2	
	(1)	(2)	(3)	(4)
<i>Auditor Litigation (0/1)</i>	-0.0476** (0.0190)	-0.0443** (0.0202)	-0.0075*** (0.0026)	-0.0070** (0.0028)
<i>Firm Size</i>	-0.0699*** (0.0037)	-0.0732*** (0.0039)	-0.0099*** (0.0006)	-0.0102*** (0.0006)
<i>Market-to-book</i>	0.0156*** (0.0036)	0.0150*** (0.0037)	0.0006 (0.0006)	0.0007 (0.0006)
<i>LN(Firm Age)</i>	-0.0028 (0.0064)	-0.0038 (0.0070)	0.0055*** (0.0009)	0.0056*** (0.0010)
<i>Tangibility</i>	-0.2615*** (0.0165)	-0.2705*** (0.0178)	-0.0365*** (0.0025)	-0.0379*** (0.0027)
<i>R&amp;D Expenditure</i>	-0.2008* (0.1175)	-0.2060* (0.1202)	0.1024*** (0.0210)	0.1014*** (0.0214)
<i>Profitability</i>	-0.5386*** (0.0409)	-0.5454*** (0.0428)	-0.0331*** (0.0067)	-0.0340*** (0.0070)
<i>Cash</i>	-0.1696*** (0.0352)	-0.1711*** (0.0360)	0.0572*** (0.0064)	0.0571*** (0.0066)
<i>Dividend Paying Firms (0/1)</i>	-0.0435*** (0.0112)	-0.0488*** (0.0125)	-0.0046** (0.0019)	-0.0051** (0.0021)
<i>State GDP Growth</i>		-0.2715 (0.2034)		-0.0526* (0.0316)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
<i>Observations</i>	99,372	87,375	104,672	92,289
<i>R</i> <sup>2</sup>	0.0528	0.0520	0.0468	0.0447

**Table 9: Auditor litigation risk and the use of debt of different maturities**

This table reports the ordered probit model results of the effect auditor litigation risk on clients' use of debt of different maturities. The dependent variable is *ZerobyMaturity*, an ordered categorical variable based on a firm's use of debt at different maturities. *Auditor Litigation (0/1)* is an indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties; it moves from one to zero when (and after) states reduce auditor legal liability to third parties. *Auditor Litigation (0/1)* remains zero for the states that do not change auditors' litigation risk during the sample period. All continuous variables are winsorized at the 1% level. Standard errors, clustered by firm, are shown in parentheses, with 1%, 5%, and 10% levels of statistical significance denoted by \*\*\*, \*\*, and \*, respectively.

Variables	Dependent Variable: <i>ZerobyMaturity</i>	
	(1)	(2)
<i>Auditor Litigation (0/1)</i>	-0.0788*** (0.0246)	-0.0945*** (0.0246)
<i>Firm Size</i>	-0.0145** (0.0058)	-0.0246*** (0.0058)
<i>Market-to-book</i>	-0.0186*** (0.0038)	-0.0178*** (0.0038)
<i>LN(Firm Age)</i>	0.0956*** (0.0091)	0.0907*** (0.0094)
<i>Tangibility</i>	-0.2625*** (0.0251)	-0.2836*** (0.0256)
<i>R&amp;D Expenditure</i>	0.1635 (0.1120)	0.1497 (0.1109)
<i>Profitability</i>	0.0167 (0.0391)	0.0311 (0.0390)
<i>Cash</i>	1.2240*** (0.0377)	1.1821*** (0.0373)
<i>Dividend Paying Firms (0/1)</i>	0.3752*** (0.0212)	0.3895*** (0.0223)
<i>State GDP Growth</i>		-0.1945 (0.1815)
Year Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
State Fixed Effects	Yes	Yes
<i>Observations</i>	121,829	108,471
<i>Pseudo R<sup>2</sup></i>	0.0525	0.0540

**Table 10: Alternative estimation methods and identification strategy**

This table reports the robustness results based on econometric method, entropy balancing, tighter time frame and Federal cases. Panel A reports the GLM and zero inflated beta model results of the effect of an increase in auditor legal liability on clients' financial leverage. Panel B reports the results from the difference-in-differences combined with entropy balancing specifications. Panel C reports the effect of an increase in auditor legal liability on clients' financial leverage using a tighter time frame of 1978-2000 (five years before the first state court ruling and five years after the last ruling). Panel D reports the robustness results of the effect of auditor legal liability on leverage with evidence from federal level cases imposing different levels of auditor legal liability. The variables of interest are the two time-trend variables, *Post-Janus* (0/1) and *Post-Tellabs* (0/1). In the spirit of [Honigsberg et al. \(2020\)](#), *Post-Janus* (0/1) equals one in 2012–2016 and *Post-Tellabs* (0/1) equals one in 2008–2016. The dependent variable is financial leverage (either *BDR1* or *BDR2*). *BDR1* is the all liabilities book debt ratio measured as the ratio of total liabilities to total assets. *BDR2* is the ratio of total debt (short plus long-term debt) to total assets. *Auditor Litigation* (0/1) is an indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties; it moves from one to zero when (and after) states reduce auditor legal liability to third parties. *Auditor Litigation* (0/1) remains zero for the states that do not change auditors' litigation risk during the sample period. All continuous variables are winsorized at the 1% level. Standard errors, clustered by firm, are shown in parentheses, with 1%, 5%, and 10% levels of statistical significance denoted by \*\*\*, \*\*, and \*, respectively.

Dependent Variable: <i>Financial Leverage</i>				
Panel A: GLM and zero inflated beta model				
Variables	GLM		Zero inflated beta model	
	(BDR1)	(BDR2)	(BDR1)	(BDR2)
<i>Auditor Litigation</i> (0/1)	0.0410** (0.0185)	0.0595*** (0.0220)	0.0202** (0.0087)	0.0516*** (0.0157)
Controls	YES	YES	YES	YES
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
Observations	108,471	108,303	108,471	108,303
Panel B: Entropy balancing				
Variables	BDR1		BDR2	
	(1)	(2)	(3)	(4)
<i>Auditor Litigation</i> (0/1)	0.0109***	0.0076***	0.0094***	0.0077***
Firm-level Controls (State GDP)	YES (NO)	YES (YES)	YES (NO)	YES (YES)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
Observations	121,829	108,471	121,660	108,303
$R^2$	0.2697	0.2691	0.2477	0.2446
Panel C: Tighter time frame (1978-2000)				
Variables	BDR1		BDR2	
	(1)	(2)	(3)	(4)
<i>Auditor Litigation</i> (0/1)	0.0079*	0.0074*	0.0085**	0.0082**
Firm-level Controls (State GDP)	YES (NO)	YES (YES)	YES (NO)	YES (YES)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
Observations	89,952	89,952	89,809	89,809
$R^2$	0.2881	0.2882	0.2547	0.2547
Panel D: Evidence from federal cases - Janus and Tellab				
Variables	OLS	GLM	OLS	GLM
	(1)	(2)	(3)	(4)
<i>Post-Janus</i> (0/1)	0.0184* (0.0095)	0.0750* (0.0409)		
<i>Post-Tellabs</i> (0/1)			0.0184* (0.0095)	0.0750* (0.0409)
Controls	YES	YES	YES	YES
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Observations	55,120	55,120	55,120	55,120

**Table 11: Alternative measures of debt and debt maturity, and controlling for confounding factors,**

This table reports robustness results based on alternative financial leverage measures, PSLRA of 1995, exclusion of Delaware and different debt maturities. Panel A reports the results of the alternative financial leverage measures. In Panel A, the dependent variable is financial leverage (either *BDR3*, *BDR4* or *MDR1*). *BDR3* is measured as the ratio of short plus long-term debt to short plus long-term debt plus common shareholders' equity. *BDR4* is long-term book debt ratio measured as total long-term debt divided by the total long-term debt plus common shareholders' equity. *MDR1* is the ratio of total liabilities to total assets minus common shareholders' equity plus market value of common stock. Panel B reports the robustness results for the controlling of Private Securities Litigation Reform Act of 1995 and the exclusion of Delaware firms. In Columns 1-3 of Panel B, we control for *PSLRA* (0/1). In Columns 4-6 of Panel B, we exclude Delaware firms. In Panel B, the dependent variable is financial leverage (either *BDR1* or *BDR2*). *BDR1* is the all liabilities book debt ratio measured as the ratio of total liabilities to total assets. *BDR2* is the ratio of total debt (short plus long-term debt) to total assets. Panel C table reports the results of the net debt issues regressions. In Panel C, the dependent variable is *Net Debt Issues* measured as the difference between long-term debt issuance and long-term debt reduction, scaled by the book value of assets. *Auditor Litigation* (0/1) is an indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties; it moves from one to zero when (and after) states reduce auditor legal liability to third parties. *Auditor Litigation* (0/1) remains zero for the states that do not change auditors' litigation risk during the sample period. All continuous variables are winsorized at the 1% level. Standard errors, clustered by firm, are shown in parentheses, with 1%, 5%, and 10% levels of statistical significance denoted by \*\*\*, \*\*, and \*, respectively.

Dependent Variable: <i>Financial Leverage</i>						
Panel A: Alternative financial leverage measures						
Variables	BDR3		BDR4		MDR1	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Auditor Litigation</i> (0/1)	0.0162*** (0.0051)	0.0151*** (0.0053)	0.0131*** (0.0048)	0.0115** (0.0050)	0.0078** (0.0036)	0.0064* (0.0036)
Firm-level Controls (State GDP)	YES (NO)	YES (YES)	YES (NO)	YES (YES)	YES (NO)	YES (YES)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	121,658	108,301	121,787	108,430	121,829	108,471
<i>R</i> <sup>2</sup>	0.2423	0.2394	0.2279	0.2276	0.4594	0.4441
Panel B: PSLRA of 1995 and exclusion of Delaware						
Variables	Controlling for PSLRA			Exclusion of Delaware		
	( <i>BDR1</i> )	( <i>BDR2</i> )	( <i>BDR1</i> )	( <i>BDR1</i> )	( <i>BDR2</i> )	( <i>BDR2</i> )
<i>Auditor Litigation</i> (0/1)	0.0112*** (0.0043)	0.0102*** (0.0038)	0.0111** (0.0043)	0.0111** (0.0043)	0.0102*** (0.0038)	0.0102*** (0.0038)
Controls	YES	YES	YES	YES	YES	YES
PSLRA Control	YES	YES	YES	NO	NO	YES
Delaware Excluded	NO	NO	YES	YES	YES	YES
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	108,471	108,303	108,104	108,104	107,936	107,936
<i>R</i> <sup>2</sup>	0.2816	0.2570	0.2814	0.2814	0.2569	0.2569
Panel C: Different debt maturity variables						
Variables	OLS		GLM		Zero inflated beta model	
	( <i>DebtMat<sub>D</sub></i> )	( <i>DebtMat<sub>L</sub></i> )	( <i>DebtMat<sub>D</sub></i> )	( <i>DebtMat<sub>L</sub></i> )	( <i>DebtMat<sub>D</sub></i> )	( <i>DebtMat<sub>L</sub></i> )
<i>Auditor Litigation</i> (0/1)	0.0521** (0.0239)	0.0197*** (0.0064)	-0.1578 (0.1439)	0.1099*** (0.0316)	0.0414** (0.0209)	0.0414** (0.0209)
Controls	YES	YES	YES	YES	YES	YES
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
State Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
<i>Observations</i>	95,770	108,374	95,770	108,374	95,770	95,770

# Appendices

## A ZerobyMaturity construction

This table shows the *ZerobyMaturity* variable construction. The first column shows the number the variable is set to. The other columns depict the rules by which the variable is set, where “yes” denotes a firm holds that type of debt, “no” denotes a firm does not hold that type of debt, and “N.A” (not applicable) implies a firm may or may not hold that type of debt. We use Compustat items *lt*, *dd*, *dltt*, and *dlc*.

<i>ZerobyMaturity</i>	Total liabilities <i>lt</i>	Debt-debentures <i>dd</i>	Total long-term debt <i>dltt</i>	Total debt in current liabilities <i>dlc</i>
1	N.A	Yes	Yes	No
2	N.A	No	No	Yes
3	N.A	No	No	No

## B Changes in auditor litigation risk

This table lists the auditor legal liability shocks for the sample period from 1973 to 2005 used to measure changes in auditor litigation risk.

State	Year	Liability	Court Rulings
<i>HI</i>	1983	Increase	Matter of Hawaii Corp., 567 F. Supp. 609 (D. Haw. 1983).
<i>NJ</i>	1983	Increase	Rosenblum v. Adler, 461 A.2d 138, 93 N.J. 324, 93 N.H. 324 (1983).
<i>WI</i>	1983	Increase	Citizens State Bank v. Timm, Schmidt and Co., 335 N.W.2d 361, 113 Wis. 2d 376, 113 Wis. 361 (1983).
<i>MS</i>	1987	Increase	Touche Ross and Co. v. Commercial Union Ins. Co., 514 So. 2d 315 (Miss. 1987).
<i>GA</i>	1987	Increase	Badische Corp. v. Caylor, 356 S.E.2d 198, 257 Ga. 131 (1987).
<i>NC</i>	1988	Increase	Raritan River Steel v. Cherry, Bekaert, and Holland, 367 S.E.2d 609, 322 N.C. 200 (1988).
<i>MI</i>	1989	Increase	Law Office of Stockler v. Rose, 436 N.W.2d 70, 174 Mich. App. 14 (Ct. App. 1989).
<i>WV</i>	1989	Increase	First Nat. Bank of Bluefield v. Crawford, 386 S.E.2d 310 (W. Va. 1989).
<i>LA</i>	1990	Increase	First Nat. Bank of Commerce v. Monco Agency Inc., 911 F.2d 1053 (5th Cir. 1990).
<i>FL</i>	1990	Increase	First Fla. Bank, NA v. Max Mitchell and Co., 558 So. 2d 9 (Fla. 1990).
<i>MT</i>	1990	Increase	Thayer v. Hicks, 793 P.2d 784, 243 Mont. 138 (1990).
<i>TN</i>	1991	Increase	Bethlehem Steel Corp. v. Ernst and Whinney, 822 S.W.2d 592 (Tenn. 1991).
<i>CA</i>	1992	Decrease	Bily v. Arthur Young and Co., 834 P.2d 745, 3 Cal. 4th 370, 11 Cal. Rptr. 2d 51 (1992).
<i>MO</i>	1993	Increase	MidAmerican Bank and Trust Co. v. Harrison, 851 S.W.2d 563 (Mo. Ct. App. 1993).
<i>AL</i>	1994	Increase	Boykin v. Arthur Andersen and Co., 639 So. 2d 504 (Ala. 1994).
<i>NJ</i>	1995	Decrease	Accountant Liability Act

## C Variable definitions

This table provides the definition of the key variables used. Accounting data are from Compustat. State-level GDP data are from US Bureau of Economic Analysis.

Variable	Definition
<i>BDR1</i>	The ratio of total liabilities (LT) to total assets (AT)
<i>BDR2</i>	The ratio of total debt (short (DLC) plus long-term debt (DLTT)) to total assets (AT)
<i>BDR3</i>	The ratio of short (DLC) plus long-term debt (DLTT) to short (DLC) plus long-term debt (DLTT) plus common shareholders' equity (CEQ)
<i>BDR4</i>	Total long-term debt (DLTT) divided by the total long-term debt (DLTT) plus common shareholders' equity (CEQ)
<i>MDR1</i>	The ratio of total liabilities (LT) to total assets (AT) minus common shareholders' equity (CEQ) plus market value of common stock ( $CSHO \times PRCC_C$ )
<i>Auditor Litigation (0/1)</i>	Indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties (e.g., from Privity to Restatement or Foreseeability); it moves from one to zero when (and after) states reduce auditor legal liability to third parties (e.g., from Foreseeability to Restatement or Privity). It remains zero for the states that do not change auditors' litigation risk during the sample period. This variable combines both positive and negative shocks.
<i>Firm Size</i>	Natural logarithm of total book assets (AT)
<i>Market-to-book</i>	Ratio of total book assets (AT) less the book value of common equity (CEQ) plus the total market value of equity ( $CSHO \times PRCC_C$ ) all divided by the total book assets (AT)
<i>LN(Firm Age)</i>	Natural Logarithm of the number of years a firm has been listed in the merged CRSP/Compustat database
<i>Tangibility</i>	Ratio of gross property, plant, and equipment (PPEGT) to total book assets (AT)
<i>R&amp;D Expenditure</i>	Ratio of research and development expense (XRD) to total book assets (AT)
<i>Profitability</i>	Ratio of operating income before depreciation (OIBDP) to total book assets (AT)
<i>Cash</i>	Cash and marketable securities (CHE) scaled by total book assets (AT)
<i>Dividend paying firm (0/1)</i>	Set to one in the year a firm pays dividend and zero otherwise; set to zero if missing
<i>State GDP Growth</i>	The state-level GDP growth rate over the fiscal year
<i>ZerobyMaturity</i>	An ordered categorical variable based on debt maturity
<i>DebtMat<sub>D</sub></i>	The ratio of book value of long-term debt (DLTT) to the book value of total debt (DLC plus DLTT)
<i>DebtMat<sub>L</sub></i>	The ratio of book value of long-term debt (DLTT) to total liabilities (LT)
<i>IDR1</i>	The ratio of interest expense (XINT) to interest-bearing long-term debt (DLTT) outstanding
<i>IDR2</i>	The ratio of interest expense (XINT) to interest-bearing total debt (DLTT plus DLC) outstanding
<i>High ExtFin (0/1)</i>	Takes the value of one if a company's external finance dependence level (CAPX-FOPT/CAPX) is greater than its <a href="#">Fama and French (1997)</a> respective industry median, zero otherwise
<i>Credit Rating</i>	an ordinal variable based on S&P long-term credit rating and translated to a numeric value ranging from 1 (rating D) to 22 (AAA)
<i>Investment Grade (0/1)</i>	an indicator variable set to one if a firm's credit rating is BBB or better, and zero otherwise
<i>Net Debt Issues</i>	The difference between long-term debt issuance (DLTIS) and long-term debt reduction (DLTR), scaled by the book value of assets (AT)