

Contents lists available at [ScienceDirect](#)

Journal of Accounting and Economics

journal homepage: www.journals.elsevier.com/journal-of-accounting-and-economics

The effect of auditor litigation risk on clients' access to bank debt: Evidence from a quasi-experiment[☆]

Mahfuz Chy^a, Gus De Franco^{b, *}, Barbara Su^c

^a Trulaske College of Business, University of Missouri, USA

^b A.B. Freeman School of Business, Tulane University, USA

^c Fox School of Business, Temple University, USA

ARTICLE INFO

Article history:

Received 29 November 2018

Received in revised form 6 August 2020

Accepted 10 August 2020

Available online xxx

Keywords:

Debt financing

Auditor litigation risk

State liability laws

ABSTRACT

We exploit staggered state-level shocks to third-party auditor legal liability in the U.S. to test whether auditor litigation risk affects client companies' access to private debt markets. We find that an exogenous increase in auditor litigation risk leads to an increase in both clients' likelihood of receiving bank loans and the average amount of the bank loans that clients receive. In support of our proposed mechanism that auditor litigation risk leads to improvements in clients' audit and financial reporting quality, we find that these same shocks lead to a reduction in accruals, an increase in going-concern opinions, a decrease in restatements, and an improvement in accruals' ability to predict future cash flows. We also find that increased auditor litigation risk leads to an increase in the contractibility of clients' accounting numbers, as proxied by the use of debt covenants, and a decrease in the cost of borrowing.

© 2020 Elsevier B.V. All rights reserved.

1. Introduction

Litigation against auditors, through either out-of-court settlements or the payment of damages to the injured parties, can lead to significant financial losses as well as reduced reputational capital for audit firms. As such, theoretical studies posit that a greater risk of litigation motivates auditors to improve their monitoring of clients' financial reporting process and the resulting financial statements (Schwartz, 1997; Zhang, 2007; Yu, 2011). Using various settings, empirical studies provide evidence that higher auditor litigation risk increases audit and financial reporting quality.¹ One issue with making strong inferences from these empirical studies, as DeFond and Zhang (2014) point out, is whether the net benefit of higher auditor litigation risk is positive or negative. Our central research question in this study is whether higher auditor litigation risk improves client companies' access to bank financing. An affirmative answer to this question, all else equal, implies that these clients realize an important economic benefit from higher auditor litigation risk.

[☆] We thank Sudipta Basu, Steve Buchheit (discussant), Jere Francis, Michele Hanlon (editor), Danqi Hu, Scott Judd (discussant), Inder Khurana, Jagan Krishnan, Scott Liao, Miguel Minutti-Meza (reviewer), and seminar participants at the 2017 CAAA conference, the 2017 Conference on the Convergence of Financial and Managerial Accounting, the 2018 AAA Annual Conference, University of Toronto, University of Missouri, and Temple University for helpful comments.

* Corresponding author.

E-mail addresses: chymr@missouri.edu (M. Chy), gdefranc@tulane.edu (G. De Franco), barbara.su@temple.edu (B. Su).

¹ See studies by DeFond and Subramanyam (1998); Geiger and Raghunandan (2001); Lee and Mande (2003); Venkataraman et al. (2008); Boone et al. (2011); Gaver et al. (2012); Firth et al. (2012); Lennox and Li (2012); and Anantharaman et al. (2016).

<https://doi.org/10.1016/j.jaccoco.2020.101354>

0165-4101/© 2020 Elsevier B.V. All rights reserved.

Please cite this article as: Chy, M et al., The effect of auditor litigation risk on clients' access to bank debt: Evidence from a quasi-experiment, Journal of Accounting and Economics, <https://doi.org/10.1016/j.jaccoco.2020.101354>

The rationale for the effect of auditor litigation risk on bank financing is as follows. If greater auditor litigation risk improves financial reporting quality, as the literature suggests, then higher quality financial statements should better aid creditors in screening clients and assessing borrowers' ability to generate cash flows to service debt. Greater audit quality also reduces uncertainty about the clients' collateral value of assets and liquidation value (Amiram and Owens, 2018). Therefore, increased auditor litigation risk reduces the agency costs of debt by improving financial reporting quality (Jensen and Meckling, 1976; Christensen et al., 2016). Further, debtholders can directly sue auditors for damages that result from audit failures. Greater litigation exposure for auditors provides creditors with added recourse to recover losses in the event of an audit failure. These factors make lending to the clients of auditors with greater litigation risk a more attractive proposition.

Testing our research question requires overcoming an important empirical issue in the literature—the large number of interconnected relations between auditing and debt financing constructs. For instance, the auditing literature identifies and provides evidence in support of an extensive set of factors that determine or are consequences of auditor litigation (DeFond and Zhang, 2014). Disentangling the effects among the different factors and making inferences is quite difficult because these factors are often both causes of and are caused by auditor litigation risk. To the extent that these relations cannot be completely modeled or controlled for, the tests may not be well identified in general.

To test our research question then, we must isolate changes in auditor litigation risk that are unrelated to other factors that may simultaneously affect borrowers' contracting environments and lenders' debt contracting choices. In our study, we focus on third-party auditor liability for ordinary negligence that evolves at the state level. Under common law, auditor legal liability to third parties is decided based on one of three principles: Privity, Restatement, or Foreseeability. In Privity, only the parties to the contract can sue the auditor for ordinary negligence. In Restatement, auditors are liable to known third parties (including creditors). In Foreseeability, all foreseeable parties can sue auditors for failure to exercise due diligence. In short, Privity goes furthest in limiting the scope of defining auditor legal liability to third parties, which translates to the lowest auditor liability, while Foreseeability is the most expansive, with consequently the highest auditor liability. Restatement falls in between these two principles. We exploit these plausibly exogenous shocks in auditor litigation risk (from Privity-to-Restatement-to-Foreseeability) across states as a means of identification to investigate how a change in auditor litigation risk affects client companies' access to debt financing. During our sample period (1982–1998), fourteen states expand and two states reduce auditor legal liability. These auditor legal liability shocks affect states that are exposed to heterogeneous local conditions, such as varying geography and politically dissimilar populations, in an unpredictable chronological sequence—thus mitigating concerns about correlated omitted variables.

Focusing on state-level common law liability offers us other advantages beyond addressing the identification issue. State-level auditor common law liability exposure is economically important. According to Donelson (2013), state law cases account for 57.8 percent of large settlements paid by the six largest audit firms over the period 1996 to 2007. While, for identification purposes, we base our analyses on an early period, our findings remain relevant to the current legal environment of auditor liability for *ordinary negligence* under state common law (Anantharaman et al., 2016). Further, private debtholders hold auditors liable primarily under state common law. We focus on client companies' access to private debt financing because public security (i.e., bond or equity) holders can also sue auditors under federal securities law, whereas banks mainly hold auditors accountable under state common laws (Anantharaman et al., 2016). As such, the shocks we study constitute sharper marginal changes in banks' ability to sue auditors than they do for public security holders.

Our results suggest that the treatment sample—clients that experience an increase in auditor legal liability (from Privity-to-Restatement-to-Foreseeability)—is more likely to access private debt markets than is the control sample. Specifically, our difference-in-differences estimates suggest that moving to a higher state-level auditor liability regime increases the client's likelihood of receiving bank loans by 12% and the average amount of bank loans received by 13.5%. In additional analyses, we show that our results hold when we separately study clients that experience positive shocks and those that experience negative shocks to auditor litigation risk. Further, pre-existing differences between the treatment and control groups cannot explain the results. Our inferences are robust to a more recent sample period of 1999–2017, tests that attempt to address potential measurement errors in DealScan's data coverage (by including only the treatment states), and alternative measures of shocks to litigation risk. In addition, cross-sectional tests suggest that the effect of auditor litigation risk on clients' access to private debt financing is stronger when borrowers face greater agency costs of debt and when creditors benefit more from auditors' enhanced insurance value.

To demonstrate a more nuanced view of how auditor litigation risk affects debt contracting, we examine the effects on the use of debt covenants and changes in the cost of borrowing. We expect that lenders are more likely to rely on accounting-based debt covenants when accounting quality is higher (Costello and Wittenberg-Moerman, 2011). Consistent with our prediction, the treatment clients have more financial covenants in their private lending agreements relative to the control clients. Importantly, banks require more covenants written on accounting numbers on which auditors are more likely to have a direct disciplinary effect. Furthermore, if greater auditor litigation risk reduces the agency costs of debt, it may manifest in a reduced cost of borrowing (Costello and Wittenberg-Moerman, 2011). Indeed, we find that increased auditor litigation risk leads to a decrease in the cost of borrowing.

To provide evidence on the mechanism through which auditor litigation risk affects clients' access to bank loans, we confirm the results of prior studies (but using an exogenous change in the independent variable) that increases in litigation risk lead to improvements in audit and financial reporting quality. First, we find that clients' discretionary and total accruals decline following increased auditor litigation risk (DeFond and Zhang, 2014). Second, consistent with Anantharaman et al. (2016), auditors exposed to greater litigation risk are more likely to issue modified going-concern opinions. Third, higher

auditor litigation risk leads to a lower likelihood of restatements and an improved ability of accruals to predict future cash flows (as in [Minnis, 2011](#)).

In our final analysis, we study the impact of auditor litigation risk on client companies' access to bond markets. The evidence from our tests is consistent with greater auditor litigation risk: (1) improving client companies' access to bond markets; (2) increasing the use of accounting-based covenants; and (3) decreasing the cost of borrowing via bonds. Hence, these tests provide corroborating evidence that clients' access to financing improves following an increase in auditor litigation risk.

Our study contributes to the literature in the following ways. First, we establish the effects of auditor litigation risk on client companies' access to debt financing. To the best of our knowledge, we are the first to document this relation. The extant literature is more indirect in that some studies link litigation risk to improved audit and accounting quality and other studies link improved audit and accounting quality to the debt contracting process. In addition, we have the advantage of exogenous shocks to auditor litigation risk, which increases our confidence that the relation between auditor litigation risk and the improvement in clients' debt access is a causal one. Improved access to cheaper debt financing provides a clear economic benefit to borrowers as a consequence of their auditors experiencing higher litigation risk. Our study complements extant literature such as [Venkataraman et al. \(2008\)](#) and [Anantharaman et al. \(2016\)](#) by showing that the outcomes of higher auditor litigation risk go beyond the effects on audit and financial reporting quality. Our study also complements [Lou and Vasvari \(2013\)](#), who find that greater auditor reputation, as measured by industry market share, is negatively related to public bond yields and positively related to bond maturity.²

Second, our paper complements the literature examining the auditor's role in private debt contracting. Prior research finds that private companies receiving an audit have better access to debt markets ([Minnis, 2011](#); [Kausar et al., 2016](#)). Our evidence suggests that auditors play an important role in public companies' access to debt financing as well. A few recent papers study how lenders adjust loan terms based on whether the borrower changes auditors, receives a modified audit opinion, or employs a high-quality auditor ([Chen et al., 2016](#); [Francis et al., 2016](#); [Robin et al., 2017](#)).³ [Baylis et al. \(2017\)](#) examine borrower and lender characteristics that affect lenders' demand for auditors to check borrowers' compliance with covenants. Our research complements these studies by showing that lenders consider auditor litigation risk in deciding whether to issue a loan.

Third, our results speak to the longstanding policy debate on the appropriate level of auditor legal liability. In particular, the U.S. Department of the Treasury formed an advisory committee in 2007 to address whether to limit auditor legal liability but, "... was unable to reach a consensus as to whether limits on auditor liability would be beneficial or harmful to the capital markets and to investors or, for that matter, whether such limits are necessary to sustain the auditing profession." ([Levitt and Nicolaisen, 2008](#), p. VII: 23). We contribute to this policy debate by identifying a positive effect on borrowers' access to cheaper debt capital, which provides some evidence to assist in the evaluation of these questions.

2. Institutional background and identification strategy

A key empirical challenge in obtaining causal treatment effects of auditor litigation risk on corporate debt financing policy is the endogeneity of auditor litigation risk. As an example of reverse causation in the context of this relation, the financing policy that a client company enacts is likely to influence an auditor's view of the client's litigation risk. Furthermore, a host of unobservable company and auditor characteristics could potentially confound our estimates of how auditor litigation risk affects companies' debt contracting. As a specific example, auditor litigation is expected to affect and be affected by conservatism ([Francis and Krishnan, 1999](#); [Heninger, 2001](#)). Conservatism, in turn, both affects debt contracting (e.g., [Zhang, 2008](#)) and is affected by debt contracts (e.g., [Gormley et al., 2012](#)). As another example, a company's financial distress has been shown to affect both auditor litigation ([Lys and Watts, 1994](#)) as well as debt contracting ([Myers, 1977](#)). We exploit staggered exogenous shocks to auditor legal liability (from Privity-to-Restatement-to-Foreseeability) as a way to overcome this empirical challenge.

In the U.S., auditors of public companies are liable under both federal securities laws and state-level common laws. Public security holders can sue auditors in federal court. [Honigsberg, Rajgopal, and Srinivasan \(2020\)](#) focus on auditor liability under securities laws and document that shareholder litigation against auditors has declined since the passage of the Private Securities Litigation Reform Act (1995). We exclude federal law from our analysis because it applies to all listed companies in the U.S. and thus does not permit identification in our research setting.

In our study, we focus on third-party auditor liability for ordinary negligence that evolves at the state level. Under common law, auditor legal liability to third parties is decided based on one of the three principles: Privity, Restatement, or Foreseeability. Privity represents the most restrictive principle under which an auditor is liable to a third party because it requires

² A concurrent working paper by [Choi et al. \(2018\)](#) finds that banks charge higher interest rates on loans to the peers of companies whose auditors are sued. We complement their study by exploiting exogenous shocks to auditor legal liability to address the identification issue and provide evidence on both price and non-price loan terms.

³ [Chen et al. \(2016\)](#) find that lenders are more likely to increase interest rates and non-accounting-based debt covenants after companies receive modified audit opinions. [Francis et al. \(2016\)](#) show that auditor changes increase bank loan interest rates. [Robin et al. \(2017\)](#) document that auditor quality is negatively associated with the number and tightness of financial covenants used in bank loan contracts.

a direct contractual relationship between the auditor and the third party. Restatement expands the definition of third parties that can hold an auditor liable by including all the intended beneficiaries of the audited information, including creditors. Foreseeability provides the broadest definition of third parties that can hold an auditor liable. Under the Foreseeability principle, all third parties purportedly injured by substandard audits can sue the auditor. The more expansive the class of third parties to whom an auditor is liable, the higher the potential litigation risk it faces.

The Privity principle was first established by the New York Court of Appeals in 1931. Most state courts followed the Privity approach in defining auditor legal liability to third parties until the late 1960s. Beginning in the 1970s, several state courts began adopting the restatement approach to define legal liability for audit failures. In 1983, New Jersey and Wisconsin adopted the Foreseeability approach, thereby significantly expanding auditor legal liability. Since the 1990s, however, the trend of increasing auditor legal liability has reversed, and California (1992) and New Jersey (1995) have reduced auditor liability.⁴

We take advantage of these plausibly exogenous shocks in auditor legal liability (from Privity-to-Restatement-to-Foreseeability) as a means of identification to investigate how a change in auditor litigation risk affects clients' access to debt financing. To collect information on each state's auditor legal liability level, we retrieve precedent-setting court decisions from Chy and Hope (2020), who survey studies on third-party auditor legal liabilities (e.g., Scherl, 1994; Wiener, 1982; Dulle, 1987; Vick, 1992; Gaver et al., 2012; Donelson, 2013; Anantharaman et al., 2016) to gather state-level precedent-setting decisions. We then collect and carefully read the transcripts of these court verdicts to check their authenticity as precedents. Based on this verified information, we build a dataset of variation in auditor legal liability across states at different points in time. Appendix A lists all applicable precedent-setting court rulings in our 1982 to 1998 sample period.

Beyond addressing the identification issue, focusing on state-level common law liability offers us other advantages. Although the legal environment that auditors face under federal securities laws has changed due to passage of the Private Securities Litigation Reform Act (1995), the Securities Litigation Uniform Standards Act (1998), and the Sarbanes-Oxley Act (2002), federal securities laws still allow third parties to sue auditors only for fraud or gross negligence, not for ordinary negligence.⁵ As such, state common law remains relevant to the current legal environment of third-party auditor liability for *ordinary negligence* (Anantharaman et al., 2016). Importantly, banks, the financial statement users in our study, hold auditors liable primarily under state common law. Further, lawsuits based on state law represent a large portion of the total lawsuits against auditors (Anantharaman et al., 2016; Donelson, 2013). For example, Anantharaman et al. (2016) identify 195 cases (380 separate legal claims) filed against Big N auditors in the period from 2000 to 2009, 43.7% of which are for ordinary negligence. As such, state law common liability exposure is economically significant enough to potentially affect auditors' incentives to supply greater audit quality and in turn facilitate clients' access to debt finance.⁶

Before proceeding with our analysis, we highlight a caveat of our identification strategy—changes in common law precedents may not be entirely exogenous. These precedent changes are a result of court rulings that occur because a third party has sued and it is possible that the factors that lead to the lawsuit are somehow related to the outcome variables we study. While we do not believe this situation occurs often, we cannot completely rule it out.

3. Hypothesis development

Auditor litigation risk can affect clients' access to private debt markets in several ways. Higher auditor litigation risk (1) leads to improved audit and accounting quality, which therefore (2) better helps creditors assess the company's value and the likelihood of default. With regard to the first link that higher auditor litigation risk leads to improved audit and accounting quality—greater risk of litigation could motivate auditors to withstand management pressure and monitor the client's financial statements with duty and care. Litigation can cost auditors significant financial and reputational capital either through out-of-court settlements or through the payment of damages to the injured parties. Lennox and Li (2020) study the instances of litigation against auditors, which is typically a subset of accounting-related litigation against their clients (20% according to their descriptive statistics). They find that auditors are more likely to be sued when the accounting allegations involve fictitious assets and/or understated expenses or when the allegations relate to overvalued assets or undervalued liabilities or expenses. In Lennox and Li's (2020) sample, the average payout from the auditor to the plaintiff is \$41 million. Prior literature suggests that concerns about litigation are an important factor that drives auditors to supply high audit

⁴ The 1995 auditor legal liability change in New Jersey is not based on a common law precedent but is a result of passage of the Accountant Liability Act (Pacini et al., 2000). We follow Anantharaman et al. (2016) in using this law change as one of the exogenous shocks. An untabulated analysis shows that our inferences continue to hold if we remove New Jersey companies from the sample.

⁵ Honigsberg et al. (2020) provide a comprehensive analysis of the evolution of auditor liability under federal securities laws.

⁶ In an untabulated test, we explore whether changes in auditor legal liability under common law affect the incidence of auditor litigation by hand collecting the lawsuits against auditors from 1982 to 2017. Our tests provide no statistical evidence that changes in common law are related to the incidence of auditor litigation. However, we face three challenges in drawing inferences from this analysis. First, we do not observe cases that are settled out of court, and this leads to an undercount of lawsuits against auditors. Second, some cases in the database only show the decision dates of appeals and not the initial trial. As such, we cannot accurately determine when auditors are sued for these cases because there is a lag between an appeal and the initial trial. Third, the sign of the relation between changes in common law and the incidence of auditor litigation is ambiguous. On the one hand, if changes in common law successfully improve audit quality, the incidence of auditor litigation could decrease *ex post*. On the other hand, if changes in common law make it easier or more profitable to sue auditors, the incidence of auditor litigation could increase *ex post*. Hence, the lack of statistical evidence could be due to a test of low power or it could be due to the ambiguous nature of the predicted economic effect.

quality. Theoretical studies support the contention that higher auditor litigation risk results in better audit quality (Schwartz, 1997; Yu, 2011; Zhang, 2007). Empirical studies use different settings to shed light on this question and mostly find that auditors become more conservative in their evaluation of clients' accounting choices in the wake of increased litigation risk (DeFond and Subramanyam, 1998; Boone et al., 2011; Anantharaman et al., 2016).

With regard to the second link that improved audit and accounting quality helps creditors determine the company's value and the likelihood of default, accounting information facilitates the debt contracting process by providing information about borrowers' ability to generate sufficient cash flows to service debt (Amiram and Owens, 2018). Further, based on the agency theory perspective, accounting information facilitates the debt contracting process by reducing agency conflicts between shareholders and debtholders (Jensen and Meckling, 1976; Christensen et al., 2016). Agency costs of debt arise because managers, who act on behalf of shareholders, may make business decisions that expropriate wealth from creditors. Creditors can restrict such behavior by including covenants in their loan contracts. Because these covenants (e.g., debt service coverage, debt to tangible net worth, debt to cash flow) are often written on accounting numbers, improved accounting quality can reduce the agency costs of debt by more efficiently limiting borrowers' opportunistic behavior. Empirical research supports this notion. For example, Bharath et al. (2008) document a negative relation between accounting quality and cost of debt. Minnis (2011) examines the effect of auditing on clients' debt financing and finds that clients with audited financial statements have a significantly lower cost of debt. Lara, Osma, and Penalva (2016) find that accounting conservatism enhances investment efficiency and improves companies' access to debt financing.

Finally, higher litigation risk also benefits creditors by providing added recourse to recover losses in the event of an audit failure. Prior literature suggests that auditors are perceived as providing financial statement users with a form of insurance (Kellogg, 1984; Dye, 1993; Baber et al., 1995). Empirical research shows that investors value the availability of a potential recovery. For instance, Willenborg (1999) documents that IPO underpricing is lower when the auditor's ability to insure against potential investor losses is higher. In our setting, a shift from a low to a high legal liability regime makes it easier for creditors to recover their financial losses in a setting when creditors rely on negligently audited financial statements of a failed company. This enhanced insurance value of auditors arising from a higher litigation risk can increase lenders' willingness to extend credit to the auditors' clients.

In sum, changes in litigation risk may affect clients' access to private debt markets through the improvement of audit quality and the strengthening of auditors' insurance role. Based on these discussions, we formulate our primary hypothesis as follows (in alternative form):

H1 Companies domiciled in states with an increase (decrease) in state-level auditor litigation risk increase (decrease) their bank financing compared with companies residing in states with no state-level changes in auditor litigation risk.

It is possible, however, that auditor litigation risk does not have a discernible effect on clients' access to private debt markets for several reasons. Audited financial statements may not be the main resource that private debtholders rely on to make lending decisions because of their access to timelier, more granular, and private information combined with their advanced information processing ability. Also, as proposed by Robin et al. (2017), debtholder monitoring and auditor monitoring could be costly substitute monitoring mechanisms for shareholders. Hence, shareholders may demand less private debt after increased auditor litigation risk to reduce duplicate monitoring costs (e.g., Vashishtha, 2014; Bharath and Hertz, 2016). Furthermore, Deng et al. (2012) argue that increased legal liability for audit failures could lead auditors to become very conservative and issue frequent, unmerited going-concern opinions, potentially leading to an impairment of audit quality. Carson, Fargher, Geiger, Lennox, Raghunandan, and Willekens (2012), who also study and highlight issues with going-concern opinions, similarly contend that clients receiving a going-concern opinion are potentially more likely to enter bankruptcy, which if the opinion is undeserved, could lead to more financial distress than warranted. Hence, in support of the null hypothesis, creditors may not view an increase in auditor litigation risk as a positive event. Finally, while we posit that auditor litigation affects lending decisions, economic fundamentals, such as the level and uncertainty in expected cash flows, likely play a more important role in the lending decision. The presence of these other economic factors reduces the power of our tests.

4. Research design

4.1. Sample selection

We begin our sample selection by retrieving all Compustat-CRSP merged company years for the period from 1982 to 1998. DealScan data first becomes available in 1982. The first auditor legal liability shock we use in our sample is in 1983, and the last takes place in 1995. Our main analysis uses three years of data subsequent to the last shock, which leads to our sample period ending in 1998. (In additional analyses discussed below, we employ a more recent sample period and find consistent results). We exclude companies in the financial and utility industries and those with missing or negative values of assets and sales. Because our identification requires information on the state of location and incorporation, we also drop companies missing this information. We exclude companies that are located or incorporated outside of the U.S. We also require data to

calculate discretionary accruals and all control variables. These sample selection filters result in 56,402 company-year observations.⁷ Because Compustat backfills its headquarters location data with the most recently available data, we collect historical headquarters state data from the SEC's EDGAR database.⁸

4.2. Sample loan characteristics

For the above Compustat-CRSP merged sample, we gather syndicated loan data from Loan Pricing Corporation's (LPC) DealScan. We use the up-to-date DealScan-Compustat link from [Chava and Roberts \(2008\)](#) to connect DealScan loans with the Compustat identifier *GVKEY*. [Table 1](#), Panel A provides summary statistics for the loan characteristics in our main sample. Our sample includes 18,351 unique loan facilities, representing 4,529 unique borrowing companies. The average facility (deal) amount is \$161.8 (\$275.8) million, with an average maturity of 4.2 years. The average book assets for companies receiving bank loans in the sample is \$1,710 million.⁹

4.3. Model specifications and variable construction

In our empirical specifications, we closely follow prior studies that exploit state-level staggered shocks, such as [Bertrand and Mullainathan \(2003\)](#), [Armstrong et al. \(2012\)](#), and [Klasa et al. \(2018\)](#), to study the causal effect of auditor litigation risk on clients' access to private debt financing. In this framework, companies located or incorporated in states that change auditor legal liability during our sample period belong to the treatment group. The remaining companies are in states that do not change auditor legal liability during the sample period and are in the control group. Further, because we have staggered shocks, treatment companies themselves are part of the control group until they are assigned to the treatment group. Our identification strategy improves our confidence in the analyses because it is unlikely that omitted factors will systematically correlate in a specific chronological manner with a large number of staggered exogenous shocks in states that are

Table 1
Descriptive statistics.

Panel A: Loan Characteristics				
Number of loan facilities				18,351
Number of unique borrowing companies				4,529
Average facility amount				161.82
Average deal amount				275.78
Average maturity at inception				4.16
Average borrowing company's book assets				1,710
Variables	(1)	(2)	(3)	(4)
	N	Mean	Std. Dev.	Median
Panel B: Summary Statistics for Key Variables				
<i>Loan_{t+1}</i>	56,402	0.151	0.358	0.000
<i>LogLoanAmt_{t+1}</i>	56,402	1.128	1.868	0.000
<i>HigherLitRisk</i>	56,402	0.502	0.500	1.000
<i>Book Assets (\$ millions)</i>	56,402	713.3	3,418.8	63.0
<i>Size</i>	56,402	4.301	1.981	4.143
<i>MkBk</i>	56,402	1.693	1.623	1.147
<i>Age</i>	56,402	2.335	0.859	2.303
<i>PPE</i>	56,402	0.305	0.216	0.255
<i>R&D</i>	56,402	0.041	0.082	0.000
<i>Current Ratio</i>	56,402	2.936	2.837	2.123
<i>Cash</i>	56,402	0.156	0.191	0.076
<i>LogSale</i>	56,402	4.342	2.207	4.328
<i>Loss</i>	56,402	0.184	0.387	0.000
<i>EarnVol</i>	56,402	0.088	0.117	0.050

⁷ The observations in the treatment states consist of 36,628 company-year observations. The distribution is: CA (40.0%), NJ (15.1%), FL (12.5%), GA (6.7%), MI (6.0%), MO (4.3%), NC (4.3%), WI (3.7%), TN (3.1%), LA (1.6%), and AL (1.6%). HI, MS, WV, and MT account for the remaining observations.

⁸ Compustat backfills headquarters data with the most recent headquarters information. For example, Compustat data retrieved in 2017 will show current (i.e., 2017) headquarters data for observations from the 1980s, even if the company had a different headquarters location in 1980. To correct potential biases arising from headquarters location misstatements, we collect EDGAR's historical headquarters data. Note that even though the SEC did not require 10Ks to be electronically filed until May 1996, many companies voluntarily did so starting from 1994. For company-years prior to 1994 (or the year that a company first electronically filed), we backfill the business location from the first instance that the location of the business appears in 10K filings in EDGAR.

⁹ Our statistics are consistent with prior studies that also use less recent samples. For example, [Carey et al. \(1998\)](#) report that 9145 loans were issued to Compustat companies from 1987 to 1993. The median loan size is \$35 million in our sample and \$25 million in their sample. The median loan maturity is four years in our sample and 36 months in theirs.

	(1)	(2)	(3)	(4)
	Treatment states in high litigation risk period (N = 28,340)	Treatment states in low litigation risk period (N = 8,288)	Difference = (1)–(2) (p-value)	Control states (N = 19,774)
Panel C: Descriptive Statistics for Treatment and Control States				
<i>Loan_{t+1}</i>	0.153	0.148	0.005 (0.09)	0.150
<i>LogLoanAmt_{t+1}</i>	1.151	1.137	0.014 (0.05)	1.092
<i>Size</i>	4.317	4.516	–0.198 (<0.01)	4.191
<i>MkBk</i>	1.638	1.610	0.028 (0.15)	1.806
<i>Age</i>	2.348	2.611	–0.262 (<0.01)	2.202
<i>PPE</i>	0.317	0.279	0.038 (<0.01)	0.300
<i>R&D</i>	0.036	0.043	–0.007 (<0.01)	0.047
<i>CurrentRatio</i>	2.846	2.857	–0.011 (0.74)	3.099
<i>Cash</i>	0.142	0.155	–0.013 (<0.01)	0.177
<i>LogSale</i>	4.381	4.640	–0.258 (<0.01)	4.161
<i>Loss</i>	0.171	0.156	0.015 (<0.01)	0.214
<i>EarnVol</i>	0.085	0.074	0.011 (<0.01)	0.096
	(1)	(2)	(3)	
	High litigation risk	Low litigation risk	Difference = (1)–(2) (p-value)	
Panel D: Differences in Means of the De-Trended <i>Loan_{t+1}</i> for the Treatment States				
TN	0.155	0.036	0.119 (<0.01)	
WV	0.062	–0.048	0.110 (0.12)	
MS	0.041	–0.016	0.057 (0.27)	
LA	0.088	0.042	0.046 (0.11)	
CA	0.001	–0.042	0.043 (<0.01)	
MO	0.048	0.013	0.035 (0.06)	
GA	0.030	0.009	0.021 (0.10)	
NC	0.001	–0.016	0.017 (0.11)	
HI	0.013	0.000	0.013 (0.45)	
NJ	–0.031	–0.041	0.010 (0.17)	
WI	0.007	0.000	0.007 (0.45)	
MI	0.015	0.008	0.007 (0.29)	
AL	0.018	0.013	0.005 (0.38)	
FL	–0.014	–0.017	0.003 (0.51)	
MT	–0.069	–0.067	–0.002 (0.54)	
All States	0.009	–0.008	0.017 (<0.01)	

This table provides summary statistics for the variables used in our analysis for the sample period 1982 to 1998. Panel A reports the loan characteristics from the DealScan database. The unit of analysis is a loan facility. Panel B contains statistics for the key variables used in the primary analyses. The unit of analysis is a company year. *Loan_{t+1}* equals one if a company receives at least one bank loan in fiscal year *t+1*, zero otherwise. *LogLoanAmt_{t+1}* equals the logarithm of one plus the average amount of bank loans (in \$ millions) that a company receives in fiscal year *t+1*. *HigherLitRisk* 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. *HigherLitRisk* remains zero for the states that do not change auditors' litigation risk during the sample period. Panel C, Columns 1 and 2 respectively report the mean values for the treatment states in high and low litigation periods, Column 3 tabulates tests of differences in means between high and low litigation regimes for the treatment states, and Column 4 includes means for control states for the entire period. Panel D, Columns 1 and 2 respectively report the de-trended means of the *Loan_{t+1}* variable for the treatment states in high and low litigation periods separately and Column 3 reports the test of differences in means. The de-trended mean in Panel D is calculated as *Loan_{t+1}* minus the *AvgYrLoan_{t+1}*, where *AvgYrLoan_{t+1}* is the annual averages of *Loan_{t+1}*. We de-trend the variable to control for the biases in the pre and post means arising from the expansion of the loan market during our sample period. Appendix A details all shocks to auditor legal liability. Appendix B provides variable definitions.

geographically dispersed and that likely experience different local economic shocks. To further strengthen identification, we primarily rely on the inclusion of company fixed effects that control for the audit clients' unobserved time-invariant heterogeneities.¹⁰ Year fixed effects control for macroeconomic shocks that may affect all companies in the sample in a given year. Finally, we control for a large set of company characteristics motivated by previous research (e.g., Lemmon et al., 2008; Klasa et al., 2018).

We estimate equation (1) below to investigate the effects of auditor litigation risk on clients' access to bank loans.

$$Outcome_{t+1} = \beta_1 HigherLitRisk + \beta_2 Size + \beta_3 MkBk + \beta_4 Age + \beta_5 PPE + \beta_6 R\&D + \beta_7 CurrentRatio + \beta_8 Cash + \beta_9 LogSale + \beta_{10} Loss + \beta_{11} EarnVol + Company\ FE + Year\ FE + \varepsilon. \quad (1)$$

We measure our dependent variable, *Outcome*, which is a company's access to private debt markets, in two ways. *Loan* is an indicator variable that equals one if a company receives at least one bank loan in a fiscal year, zero otherwise. Because companies may receive more loans of a smaller average amount, we construct another measure that captures the average loan

¹⁰ While most of our tests include company fixed effects, in some cases we include state and/or industry fixed effects instead for two reasons. For some tests, we use a later time period and companies have no within-company, time-series change in auditor litigation risk. In other cases, we lack sufficient variation in the dependent variable on a per company basis. All tables indicate the type of fixed effects used in the test.

amount. *LogLoanAmt* equals the logarithm of one plus the average amount of bank loans (in \$ millions) that a company receives in a given fiscal year; it equals zero if a company receives no loans in a year. *LogLoanAmt* thus weights companies' access to private debt markets (as captured by the *Loan* variable) with the average amount of the loans received. Untabulated analyses indicate that our inferences continue to hold when we use two additional complementary measures of bank loan access: the logarithm of one plus the number of loans a company receives in a given year and the total loan amount scaled by the book value of assets.

Note that we use Ordinary Least Squares (OLS) regressions in all our analyses. Given that our dependent variable *Loan* is a binary outcome variable, the OLS regression represents a linear probability model (LPM). We do not use logit or probit regressions in our analyses for two reasons. First, because we have a large number of company fixed effects, using such a model may lead to inconsistent coefficient estimates due to the incidental parameter problem (Lancaster, 2000). Second, logit or probit models (when used with company fixed effects) drop all companies that do not receive at least one new loan in the sample period, resulting in a significant loss of power and potentially biasing the inferences. Nonetheless, we conduct untabulated analyses with logit regressions. Our inferences continue to hold.

Our key independent variable of interest is *HigherLitRisk*, an indicator variable that captures changes in auditor legal liability in the state where a company is incorporated or headquartered.¹¹ More specifically, *HigherLitRisk* moves from zero to one when (and after) a state expands auditors' legal liability to third parties (e.g., from *Privity* to the *Restatement* or *Foreseeability* approach); it moves from one to zero when (and after) states reduce auditors' legal liability to third parties (e.g., from *Foreseeability* to the *Restatement* or *Privity* approach). *HigherLitRisk* remains zero for all states that make no changes to auditor litigation risk during the sample period. The key coefficient of interest is β_1 , which captures the difference-in-differences estimate for the causal effect of auditor litigation risk on clients' access to bank loans.

We include a variety of control variables. The natural logarithm of book assets (*Size*) proxies for company size. Larger companies are likely to have better access to capital markets. The market-to-book ratio (*MkBk*) takes into consideration the availability of growth options. Companies with more growth options likely face more agency issues related to asset substitution that affect their financing choices (Myers, 1977). The natural logarithm of the number of years a company is in Compustat proxies for company age. Older companies may suffer less from information asymmetry that affects their financing choices. *R&D* (scaled by assets) captures investment in intangible assets while Property, Plant, and Equipment (*PPE*) capture accumulated investments in tangible assets. Companies' investment policies may affect debt contracting designs. In addition, we include proxies for liquidity (*CurrentRatio* and *Cash*) and revenue-generating ability (*LogSale* and *Loss*). Earnings volatility (*EarnVol*) controls for the possibility that companies that have volatile earnings may be riskier. We conduct all our analyses at the company-year level, which leads to an easy interpretation of the difference-in-differences coefficient estimates. We cluster standard errors at the company level.¹² These standard errors are robust to both heteroskedasticity and autocorrelation. Appendix B provides variable definitions.

4.4. Summary statistics

Table 1, Panel B reports summary statistics for the key variables of the primary sample used in our analyses. In a given fiscal year, 15% of companies receive at least one bank loan. The mean value of *HigherLitRisk* is 0.50, implying that company-year observations in the sample are split evenly between high and low auditor legal liability regimes. The average book value of assets is \$713 million, and the mean of the log value of company age is 2.3 years. The average company has a market-to-book ratio of 1.7 and 4% of assets are invested in R&D. Additionally, 18% of companies have losses in a given fiscal year. The distributions of the variables are largely consistent with our expectations.

To better understand our sample composition, we also provide more granular descriptive statistics. Panel C of Table 1 shows statistics for the key variables for the treatment states in the high auditor litigation risk regime (Column 1), treatment states in the low auditor litigation risk regime (Column 2), a test of the differences in means between high and low litigation regimes (Column 3), and the control states in the entire period (Column 4). Approximately 15.3% of treatment companies receive at least one bank loan in a given fiscal year in the high litigation regime, compared with 14.8% of treatment companies in the low litigation regime and 15.0% of companies in the control states. For the treatment sample, Panel D reports statistics for the *Loan* variable in year $t+1$ by state. Because the syndicated loan market expanded dramatically during the sample period and 14 of the 16 treatment states experience increases in auditor litigation risk, all treatment states have

¹¹ Based on Anantharaman et al. (2016), the jurisdictions in which cases against auditors will be heard are most likely one of the following: the client's incorporation and headquarters states or the state where the audit engagement office or audit firm head office is located. Because data on the audit engagement office or the audit firm head office states are not available before 1999, we follow Anantharaman et al. (2016) in defining auditor legal liability based on the client's state of incorporation and location in our primary analyses. In a robustness check based on a more recent sample period, we redefine auditor litigation risk by also considering the auditor engagement and audit firm head offices.

¹² Because our key independent variable varies at the state of location and incorporation level, one may also consider clustering at the state level. However, recent evidence in Mackinnon and Webb (2017) suggests that when cluster sizes are unbalanced (e.g., when the state of location or incorporation is considered a cluster), the number of clusters needs to be significantly higher than the number of states to derive consistent estimates of standard errors. Nonetheless, in untabulated analyses, we cluster at the state location level. Our results still hold. We also cluster at (1) the state of incorporation level, (2) the headquarters state and incorporation state levels (two-way clustering), and (3) the company and state-year levels (two-way clustering). Untabulated analyses indicates that our inferences continue to hold.

significantly greater means for $Loan_{t+1}$ in the later years than in the earlier ones. To remove the change resulting from the expansion of the loan market over time, we de-trend the variable by subtracting the annual means of $Loan_{t+1}$ from the $Loan_{t+1}$ variable. The panel shows that it is easier for companies to obtain loans when auditor litigation risk is high than when it is low, except for one state (Montana). We also plot the differences of the de-trended means of $Loan_{t+1}$ in a high versus low auditor litigation risk regime for each treatment state in Fig. 1.

5. Findings

5.1. Main result

Table 2 presents the main result of our study. In Column 1, we regress $Loan_{t+1}$ on $HigherLitRisk$, the control variables, and company and year fixed effects. The signs of the coefficient estimates for the control variables are largely consistent with our expectations. For example, larger companies and companies with a higher market-book ratio have greater access to debt financing. The coefficient on Age is negative, suggesting that older companies are less likely to raise private debt because they are better able to raise capital in other channels such as public offerings. Consistent with the interpretation that companies with an internal fund-generating ability may depend less on costly outside finance, the coefficients on $CurrentRatio$ and $Cash$ are negative.

More importantly, the coefficient estimate on $HigherLitRisk$ is positive and statistically significant at the 1% level, suggesting that greater auditor litigation risk facilitates clients' access to private debt markets. In terms of economic magnitude, a representative treatment company has a 12% ($= 0.018/0.15$) greater likelihood of receiving bank loans in a given year than a comparable control company. As an alternative way to assess economic significance, we compare the effect of $HigherLitRisk$ with the effects of $MkBk$ and $Size$, two important predictors of bank loan access. The coefficient of 0.018 on $HigherLitRisk$ represents a greater effect on the probability of receiving a bank loan than a one-standard-deviation change in the market to book ratio does but less of an effect than a one-standard-deviation change in company size.¹³

In Column 2, the coefficient estimate is significant at the 1% level and economically meaningful. Treatment companies receive a 13.5% greater amount in loans than do comparable control companies. As in Column 1, using a similar calculation, the effect on the probability of receiving a bank loan resulting from a movement from lower to higher litigation risk is greater than a one-standard-deviation change in the market to book ratio but less than a one-standard-deviation change in company size.¹⁴ Collectively, Table 2 provides evidence that increased auditor litigation risk enables clients to improve their access to private debt markets, supporting our hypothesis.

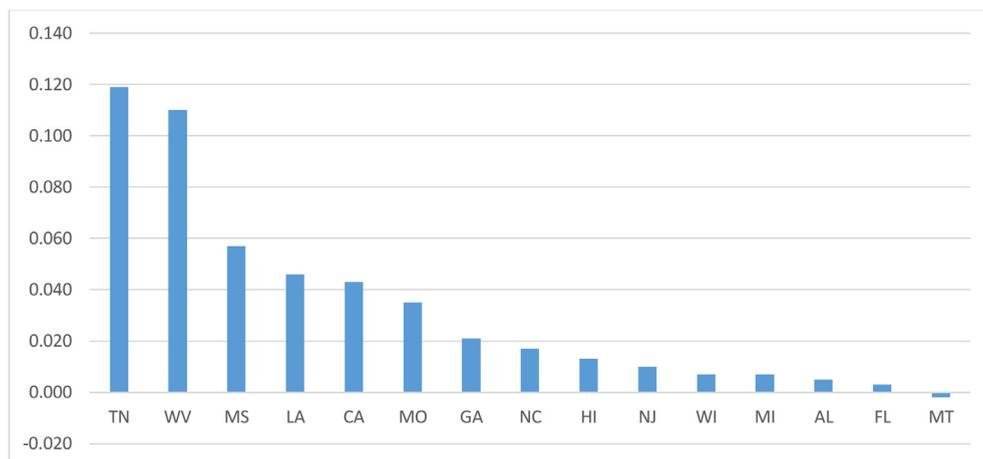


Fig. 1. Bank Financing for High versus Low Auditor Litigation Regimes by Treatment State. This figure plots the differences of the de-trended means of the $Loan_{t+1}$ variable in high versus low auditor litigation risk regimes for each treatment state. The de-trended mean is calculated as $Loan_{t+1}$ minus the $AvgYrLoan_{t+1}$, where $AvgYrLoan_{t+1}$ is the annual averages of $Loan_{t+1}$. We de-trend the variable to control for the biases in the pre and post means arising from the expansion of the loan market during our sample period.

¹³ More specifically, the $MkBk$ standard deviation of 1.623 (from Table 1, Panel B) times the $MkBk$ coefficient of 0.006 (from Column 1, Table 2) is approximately 0.010, which is less than the $HigherLitRisk$ coefficient of 0.018. A similar calculation shows that the effect of a one-standard-deviation change in $Size$ is 0.079, which is greater than the $HigherLitRisk$ coefficient of 0.018.

¹⁴ An untabulated analysis indicates that the coefficient estimates for $HigherLitRisk$ from Table 2 regressions without company fixed effects is 0.023 for $Loan_{t+1}$ and 0.179 for $LogLoanAmt_{t+1}$, which are greater than the respective tabulated coefficients in Table 2. These greater coefficients suggest that the tabulated company fixed effects specification provides a conservative estimate of the effect of increased auditor legal liability on access to finance.

Table 2
Main result—the effects of auditor litigation risk on access to bank loans.

	(1)	(2)
	<i>Loan_{t+1}</i>	<i>LogLoanAmt_{t+1}</i>
HigherLitRisk	0.018***	0.135***
	(2.93)	(3.49)
Size	0.040***	0.495***
	(7.84)	(18.69)
MkBk	0.006***	0.027***
	(4.33)	(3.97)
Age	-0.075***	-0.941***
	(-9.50)	(-19.59)
PPE	-0.053**	-0.369***
	(-2.51)	(-3.14)
R&D	-0.018	0.320**
	(-0.54)	(2.20)
Current Ratio	-0.002***	-0.005
	(-2.79)	(-1.25)
Cash	-0.079***	-0.690***
	(-4.70)	(-8.16)
LogSale	-0.001	-0.031
	(-0.16)	(-1.48)
Loss	0.003	0.029
	(0.54)	(1.55)
EarnVol	0.040	0.712***
	(1.64)	(7.17)
Company FE	Yes	Yes
Year FE	Yes	Yes
Observations	56,402	56,402
Adj. R ²	0.21	0.66

This table reports the effect of an increase in auditor legal liability on clients' access to private debt markets. The sample period ranges from 1982 to 1998. *Loan_{t+1}* equals one if a company receives at least one bank loan in fiscal year *t+1*, zero otherwise. *LogLoanAmt_{t+1}* equals the logarithm of one plus the average amount of bank loans (in \$ millions) that a company receives in fiscal year *t+1*. *HigherLitRisk* 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. *HigherLitRisk* remains zero for the states that do not change auditors' litigation risk during the sample period. All specifications are estimated using OLS regressions. Test statistics (two-sided) based on robust standard errors clustered at the company level are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. [Appendix A](#) details all shocks to auditor legal liability. [Appendix B](#) provides variable definitions. The variables of interest are bolded.

5.2. Evidence from positive shocks and negative shocks separately

In our primary analysis in [Table 2](#), we combine both positive and negative shocks to auditor legal liability in the definition of *HigherLitRisk*. Note that two states (California and New Jersey) reduce auditor legal liability in our sample period and fourteen states expand it (see [Appendix A](#)). To strengthen the causal inferences, we build on the previous analysis by separately studying positive and negative shocks.

In [Table 3](#), Columns 1 and 2, we examine how positive shocks to auditor litigation risk affect clients' access to private debt markets. In our treatment group, we include companies located or incorporated in states that expand auditor legal liability and we drop companies located or incorporated in California and New Jersey. Our control group comprises companies in states that do not change legal liability during the sample period. *PositiveShocks* is an indicator variable that takes the value of one after states expand auditor legal liability, zero otherwise. The positive and statistically significant coefficient on *PositiveShocks* confirms our previous finding that companies' access to private debt markets improves as auditor legal liability increases.

In Columns 3 and 4 of [Table 3](#), we provide evidence using the two states (California in 1992 and New Jersey in 1995) that decreased auditor legal liability during our sample period. In this test, companies headquartered or incorporated in California and New Jersey are the treatment companies and those in states that do not change legal liability serve as the control sample. We exclude companies located or incorporated in states that expand legal liability. We include observations between 1989 (three years before the California shock) and 1998 (three years after the New Jersey shock).¹⁵ *NegativeShocks* is an indicator variable that takes the value of one for California companies after (and including) 1992 and companies in New Jersey after

¹⁵ In untabulated analyses, we examine the robustness of the results by including longer periods (e.g., four or five years before the CA and after the NJ shocks) in the sample. Our inferences are unaffected.

Table 3
Symmetric effects of positive and negative shocks to auditor litigation risk.

	(1)	(2)	(3)	(4)
	<i>Loan</i> _{<i>t+1</i>}	<i>LogLoanAmt</i> _{<i>t+1</i>}	<i>Loan</i> _{<i>t+1</i>}	<i>LogLoanAmt</i> _{<i>t+1</i>}
PositiveShocks	0.017**	0.096***		
	(2.14)	(3.85)		
NegativeShocks			-0.037***	-0.143**
			(-2.59)	(-2.17)
<i>Size</i>	0.036***	0.503***	0.015	0.434***
	(5.91)	(25.26)	(1.64)	(12.36)
<i>MkBk</i>	0.008***	0.033***	0.003	0.001
	(4.42)	(5.05)	(1.39)	(0.16)
<i>Age</i>	-0.067***	-0.920***	-0.047***	-0.651***
	(-7.44)	(-33.91)	(-2.71)	(-7.97)
<i>PPE</i>	-0.081***	-0.532***	0.003	-0.015
	(-3.39)	(-6.81)	(0.07)	(-0.09)
<i>R&D</i>	0.018	0.449**	-0.103**	0.227
	(0.39)	(2.28)	(-2.07)	(1.46)
<i>Current Ratio</i>	-0.002**	-0.003	-0.002	-0.005
	(-2.31)	(-0.73)	(-1.63)	(-1.05)
<i>Cash</i>	-0.071***	-0.729***	-0.094***	-0.781***
	(-3.57)	(-9.82)	(-3.26)	(-7.28)
<i>LogSale</i>	0.002	-0.032*	0.005	-0.003
	(0.43)	(-1.72)	(0.78)	(-0.10)
<i>Loss</i>	0.006	0.049**	0.006	0.001
	(0.96)	(2.17)	(0.69)	(0.03)
<i>EarnVol</i>	0.033	0.847***	0.022	0.515***
	(1.14)	(7.72)	(0.55)	(3.96)
Company FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	44,329	44,329	25,331	25,331
Adj. R ²	0.22	0.66	0.20	0.76

This table reports the effects of increases and decreases in auditor legal liability (*PositiveShocks* and *NegativeShocks*, respectively) on access to bank loans separately. The sample period is 1982 to 1998 (1989 to 1998) in Columns 1 and 2 (Columns 3 and 4). *Loan*_{*t+1*} equals one if a company receives at least one bank loan in fiscal year *t+1*, zero otherwise. *LogLoanAmt*_{*t+1*} equals the logarithm of one plus the average amount of bank loans (in \$ millions) that a company receives in fiscal year *t+1*. Columns 1 and 2 exclude companies headquartered or incorporated in California and New Jersey (which experience negative shocks). Columns 3 and 4 exclude companies located or incorporated in states that experience positive shocks during the 1982 to 1998 sample period. *PositiveShocks* equals one for company years that become subject to higher auditor litigation regimes in the sample period 1982 to 1998, zero otherwise. *NegativeShocks* equals one for company-years that become subject to lower auditor litigation regimes in the sample period of 1989 to 1998, zero otherwise. All specifications are estimated using OLS regressions. Test statistics (two-sided) based on robust standard errors clustered at the company level are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Appendix A details all shocks to auditor legal liability. Appendix B provides variable definitions. The variables of interest are bolded.

(and including) 1995, zero otherwise. Consistent with our expectation, Columns 3 and 4 show that *NegativeShocks* has a negative effect on clients' access to private debt markets.

Table 3 suggests that the effect of auditor litigation risk on clients' access to private debt markets is symmetric. An increase in auditor litigation risk facilitates clients' access to private debt markets, while a decrease has the opposite effect, impeding clients' access to debt markets. This evidence is important because it suggests that our key results are not driven by one particular type of shock (i.e., positive or negative). Given that the treatment states and companies are different in the two types of shocks, the evidence in Table 3 also enhances the generalizability of our inferences. Further, local economic conditions, industry shocks, political sentiments, and legal environments (all of which could affect companies' access to capital) are different in the states comprising positive and negative shocks. In sum, the symmetric and opposite treatment effects for the opposite shocks suggest that these differences do not confound the effects of auditor litigation risk on clients' access to private debt markets in our setting.

5.3. Test of the parallel trend assumption

If pre-treatment differences between the treatment and control groups exist prior to the exogenous shocks that we use, then the treatment effect that *HigherLitRisk* is picking up may not be attributable to changes in auditor legal liability. Instead, the effect could be capturing a continuation of pre-existing differences, casting doubt on the validity of the inferences. To shed light on this assumption, we examine the differential trend between the treatment and control companies prior to the exogenous changes in auditor litigation risk. We conduct separate tests for positive and negative shocks, as in Table 3. *Pre-PositiveShocks* and *Pre-NegativeShocks* take a value of one for the treatment companies for each of the two years prior to exogenous positive and negative shocks to auditor liability, respectively, zero otherwise. *Pre-PositiveShocks* (*Pre-NegativeShocks*) captures the difference between the treatment and control groups prior to the positive (negative) shocks to auditor

legal liability. Similar to Table 3, *PositiveShocks* (*NegativeShocks*) continues to capture the difference in treatment effects between the treatment and control groups following changes in auditor legal liability. Table 4 reports the results. Coefficient estimates for control variables are not tabulated for brevity. We find that neither the *Pre-PositiveShocks* nor the *Pre-NegativeShocks* coefficient is statistically significant, whereas both the *PositiveShocks* and *NegativeShocks* coefficients are statistically significant in the expected directions. This result implies that pre-existing differences between the treatment and control groups cannot explain the treatment effect of *HigherLitRisk* on clients' access to private debt markets. In other words, the parallel trend assumption is likely to be satisfied in our difference-in-differences research design.

5.4. Cross-sectional analyses

We conduct three cross-sectional analyses to further shed light on the mechanism through which auditor litigation risk affects private debt financing. We argue that changes in auditor litigation risk affect clients' access to private debt markets through a reduction in the agency costs of debt and the strengthening of auditors' insurance role. As a result, we expect the effect of auditor litigation risk on private debt financing to be stronger when borrowers face greater agency costs of debt and when creditors can benefit more from auditors' enhanced insurance value.

5.4.1. Company financial constraints

Financially constrained companies have greater financing needs, but at the same time, their information asymmetry and moral hazard problems make it difficult for them to raise capital from public debt and equity markets. These companies are hence more likely to rely on bank loan financing (Boot, 2000). As a result of increases to auditor litigation risk, we expect financially constrained companies to experience a larger improvement in their access to the private debt market. *FinConstraint* 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) is greater than its respective Fama-French 48 industry median, zero otherwise.¹⁶ In Columns 1 and 2 of Table 5, we find results consistent with our expectations. The positive effect of auditor litigation risk on clients' access to bank loans is more pronounced for companies that are more financially constrained.

5.4.2. Company litigation risk

Lenders are exposed to higher credit risk if the borrowing company is subject to higher litigation risk. Prior literature suggests that lawsuits against borrowers can be detrimental to creditors because they result in significant reductions in the defendant company's value, which stem from not only lawsuit settlements but also from the damage to the these

Table 4

Test of parallel trend assumption.

	(1)	(2)	(3)	(4)
	$Loan_{t+1}$	$LogLoanAmt_{t+1}$	$Loan_{t+1}$	$LogLoanAmt_{t+1}$
<i>Pre-PositiveShocks</i>	0.000 (0.04)	-0.008 (-0.17)		
<i>PositiveShocks</i>	0.022** (2.15)	0.078** (1.98)		
<i>Pre-NegativeShocks</i>			0.004 (0.28)	-0.043 (-0.79)
<i>NegativeShocks</i>			-0.034** (-2.06)	-0.171** (-2.20)
Controls	Yes	Yes	Yes	Yes
Company FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	44,329	44,329	25,331	25,331
Adj. R ²	0.22	0.66	0.20	0.76

This table presents the tests of the parallel trend assumption in the difference-in-differences research design. The sample period is 1982 to 1998 (1989–1998) in Columns 1 and 2 (Columns 3 and 4). $Loan_{t+1}$ equals one if a company receives at least one bank loan in fiscal year $t+1$, zero otherwise. $LogLoanAmt_{t+1}$ equals the logarithm of one plus the average amount of bank loans (in \$ millions) that a company receives in fiscal year $t+1$. *Pre-PositiveShocks* is an indicator variable that equals one for treatment companies for each of the two years prior to exogenous auditor liability increases, zero otherwise. *Pre-NegativeShocks* is an indicator variable that equals one for treatment companies for each of the two years prior to exogenous auditor liability decreases, zero otherwise. *PositiveShocks* equals one for company years that become subject to higher auditor litigation regimes in the sample period 1982 to 1998, zero otherwise. *NegativeShocks* equals one for company-years that become subject to lower auditor litigation regimes in the sample period of 1989 to 1998, zero otherwise. Columns 1 and 2 exclude companies located or incorporated in California and New Jersey (which experience negative shocks). Columns 3 and 4 exclude companies located or incorporated in states that experience positive shocks during the 1982 to 1998 sample period. All specifications are estimated using OLS regressions. Test statistics (two-sided) based on robust standard errors clustered at the company level are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Appendix A details all shocks to auditor legal liability. Appendix B provides variable definitions.

¹⁶ We find similar results using the financial constraint measures proposed by Whited and Wu (2006) and Hadlock and Pierce (2010).

companies' reputation (Gande and Lewis, 2009; Yuan and Zhang, 2015). Auditors may be implicated in these suits. For example, as mentioned above, Lennox and Li (2020) find that audit firms are sued in 20% of the accounting lawsuits against companies. We hence predict that lenders to companies in more litigious industries are more likely to benefit from better accounting quality and from the added recourse to recover losses in the event of audit failures arising from increases in auditor litigation risk. Following Francis et al. (1994), we measure company litigation risk using an indicator variable, *HigherLitInd*, which equals one if the company is in a high litigation risk industry (SIC codes 2833–2836, 3570–3577, 3600–3674, 5200–5961, 7370–7374, 8731–8734), zero otherwise. In Columns 3 and 4 of Table 5, we find that the *HigherLitRisk* × *HigherLitInd* coefficient is positive and statistically significant, consistent with our expectation. This finding implies that the effect of *HigherLitRisk* on clients' access to debt financing is more pronounced for clients with higher ex-ante exposure to litigation.

5.4.3. Big N auditors

Increased auditor litigation risk could affect Big N auditors to a greater degree than non-Big N auditors. Big N auditors have “deep pockets” and hence their ability to provide an insurance role is greater (Watts and Zimmerman, 1986; Dye, 1993). In addition, to safeguard their significant reputation, Big N auditors tend to provide higher quality audits than do non-Big N auditors (De Angelo, 1981; Watts and Zimmerman, 1986). For instance, if auditors respond to higher litigation risk by engaging in additional effort in assessing clients' going-concern status (DeFond and Zhang, 2014), then Big N auditors could exert a greater degree of effort when the threat of auditor litigation is greater. Columns 5 and 6 test this notion by interacting Big N auditor with our auditor litigation risk measure. We do not, however, find evidence of this expected relation. The coefficient on *HigherLitRisk* × *BigN* is not statistically significant. We speculate that one reason for the lack of results is that even in the low litigation risk regime, Big N auditors already provide a higher audit quality and hence their marginal ability to improve after the regime change is not greater than it is for non-Big N auditors.

In sum, while we fail to provide evidence that Big N auditors play a differential role, we do find support for a greater effect for auditor litigation risk on loan access for clients that are financially constrained and those that are subject to higher litigation risk. These results are consistent with the idea that our results are stronger when the agency costs of debt are higher and when creditors benefit more from the insurance role of auditors.

Table 5
Cross-sectional analyses.

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Loan</i> _{<i>t</i>+1}	<i>LogLoanAmt</i> _{<i>t</i>+1}	<i>Loan</i> _{<i>t</i>+1}	<i>LogLoanAmt</i> _{<i>t</i>+1}	<i>Loan</i> _{<i>t</i>+1}	<i>LogLoanAmt</i> _{<i>t</i>+1}
<i>HigherLitRisk</i> × <i>FinConstraint</i>	0.009* (1.98)	0.081** (2.18)				
<i>HigherLitRisk</i> × <i>HigherLitInd</i>			0.0149** (2.21)	0.200*** (2.61)		
<i>HigherLitRisk</i> × <i>BigN</i>					-0.022 (-1.072)	-0.046 (-0.633)
<i>HigherLitRisk</i>	0.014*** (2.83)	0.101** (2.35)	0.0134** (2.05)	0.0688 (1.44)	0.037* (1.735)	0.175** (2.511)
<i>FinConstraint</i>	-0.006 (-0.71)	-0.039 (-0.93)				
<i>BigN</i>					0.023* (1.764)	0.037 (0.658)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Company FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	56,402	56,402	56,402	56,402	56,354	56,354
Adj. <i>R</i> ²	0.21	0.66	0.21	0.66	0.21	0.66

This table reports how the effect of an increase in auditor legal liability on clients' access to bank loans varies with company financial constraints (*FinConstraint*), industry litigation risk (*HigherLitInd*), and a Big N auditor (*BigN*). The sample period ranges from 1982 to 1998. The sample is smaller in Columns 5 and 6 because auditor information is missing in Compustat for some company-year observations. *Loan*_{*t*+1} equals one if a company receives at least one bank loan in fiscal year *t*+1, zero otherwise. *LogLoanAmt*_{*t*+1} equals the logarithm of one plus the average amount of bank loans (in \$ millions) that a company receives in fiscal year *t*+1. *HigherLitRisk* 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. *HigherLitRisk* remains zero for the states that do not change auditors' litigation risk during the sample period. *FinConstraint* is equal one if a company is more financially constrained (measured by the Kaplan and Zingales (1997) index) than its Fama-French 48 industry median, zero otherwise. *HigherLitInd* is equal to one for companies in a high litigation risk industry and zero otherwise. *BigN* is equal to one if a company's financial statements are audited by a Big N auditor, zero otherwise. All specifications are estimated using OLS regressions. Test statistics (two-sided) based on robust standard errors clustered at the company level are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Appendix A details all shocks to auditor legal liability. Appendix B provides variable definitions.

The variables of interest are bolded.

6. The effect of auditor litigation risk on loan covenants and borrowing costs

To provide a more nuanced picture of how auditor litigation risk affects debt contracting, we also study how improved accounting information manifests in other loan terms. Prior research suggests that a loan contract is a package of n -contractual terms (Melnik and Plaut, 1986). We hence provide further corroborating evidence on other loan terms to broaden our understanding of how auditor litigation risk affects clients' access to private debt markets. If auditor litigation risk facilitates clients' debt financing through the reduction of agency costs of debt, one may expect this effect to enhance the contractibility of accounting numbers and reduce the cost of borrowing.

Motivated by studies on the usage of accounting information in debt contracts (e.g., Demerjian, 2011), we examine whether auditor litigation risk affects lenders' use of financial covenants. If increases in auditor litigation risk improve the contractibility of accounting information, we expect lenders to use more financial covenants in debt contracts. We test this prediction in Table 6. We use the maximum number of observations with required data for this set of analyses. Because the analysis is at the loan level, we include state and industry fixed effects instead of company fixed effects as there is not enough within-company variation for a loan-level analysis. In addition to the control variables in our main analysis, we also include controls for the loan amount, the loan maturity, and the cost of borrowing (all-in-drawn spread). Consistent with our expectation, the coefficient on *HigherLitRisk* in Column 1 is positive and statistically significant. Loans issued to treatment companies contain

Table 6
The effect of auditor litigation risk on loan covenants and borrowing costs.

	(1)	(2)	(3)	(4)
	<i>LogFinCov_t</i>	<i>PerfRatio_t</i>	<i>LogAIDSpread</i>	<i>LogTotalSpread</i>
<i>HigherLitRisk</i>	0.093*** (4.42)	0.032*** (4.16)	-0.036* (-1.74)	-0.050** (-2.04)
<i>Size</i>	-0.021** (-2.59)	0.018*** (3.90)	-0.009 (-0.78)	-0.025 (-1.47)
<i>MkBk</i>	-0.021*** (-2.82)	0.001 (0.31)	-0.066*** (-16.27)	-0.095*** (-17.65)
<i>Age</i>	-0.046*** (-6.26)	-0.017*** (-5.34)	-0.058*** (-5.23)	-0.053*** (-8.22)
<i>PPE</i>	-0.076** (-2.33)	-0.050*** (-3.27)	-0.388*** (-12.80)	-0.367*** (-10.69)
<i>R&D</i>	-0.297*** (-6.12)	-0.186*** (-5.69)	-0.303*** (-5.00)	-0.291*** (-3.52)
<i>Current Ratio</i>	-0.008*** (-3.10)	-0.004*** (-2.61)	-0.048*** (-10.72)	-0.042*** (-8.60)
<i>Cash</i>	-0.174*** (-3.19)	-0.159*** (-6.58)	-0.018 (-0.33)	-0.086 (-1.25)
<i>LogSale</i>	-0.028*** (-3.61)	-0.030*** (-6.99)	-0.196*** (-18.80)	-0.182*** (-16.50)
<i>Loss</i>	-0.097*** (-5.32)	-0.076*** (-9.20)	0.164*** (12.19)	0.198*** (7.31)
<i>EarnVol</i>	0.000 (0.03)	0.001* (1.94)	-0.002* (-1.69)	0.351** (2.33)
<i>LogLoanAmt</i>	0.093*** (17.52)	0.021*** (9.35)	-0.093*** (-19.21)	-0.104*** (-10.26)
<i>LogMaturity</i>	0.167*** (16.65)	0.084*** (14.87)	0.026** (2.34)	0.055*** (3.35)
<i>LogAIDSpread</i>	0.081*** (9.57)	0.024*** (6.38)		
<i>LogFinCov</i>			0.081*** (9.03)	0.100*** (10.77)
State FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	15,017	15,017	15,017	8,754
Adj. R ²	0.55	0.32	0.47	0.54

This table reports the estimates for the effect of an increase in auditor legal liability on the use of financial covenants and interest spread in loan contracts. The sample period ranges from 1982 to 1998. *LogFinCov* equals the log of (one plus) the number of total financial covenants in a new loan contract. *PerfRatio* is the ratio of performance to all covenants. *LogAIDSpread* is the log of the all-in-drawn spread, which is the amount the borrower pays in basis points over LIBOR for each dollar drawn down. *LogTotalSpread* is the log of the total of the all-in-drawn and the all-in-undrawn spreads, where the all-in-undrawn spread is the amount in basis points a borrower pays for each dollar available but not yet drawn under a commitment. *HigherLitRisk* 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. *HigherLitRisk* remains zero for the states that do not change auditors' litigation risk during the sample period. All specifications are estimated using OLS regressions. The unit of analysis is a loan facility. Test statistics (two-sided) based on robust standard errors are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Appendix A details all shocks to auditor legal liability. Appendix B provides variable definitions.

The variables of interest are bolded.

approximately 9.3% more financial covenants than loans issued to comparable control companies, suggesting that treatment companies' accounting numbers become more contractible following increases in auditor litigation risk.

To further strengthen our argument that increases in auditor litigation risk enhance the benefit of including accounting information in contracts, we next investigate how changes in auditor litigation risk affect lenders' use of performance covenants versus capital covenants. Christensen and Nikolaev (2012) argue that the use of performance covenants relative to capital covenants is positively associated with the extent to which accounting information becomes more contractible.¹⁷ We define *PerfRatio* as the ratio of performance covenants scaled by total covenants to capture the use of performance, relative to capital, covenants. We predict and find in Column 2 that banks rely more on performance covenants relative to capital covenants after auditor litigation risk increases.¹⁸

In addition, if higher litigation risk reduces the agency costs of debt and provides added recourse to recover losses in the event of audit failures, we predict that banks will charge lower interest rates following an increase in auditor litigation risk. We find evidence supporting our prediction in Columns 3 and 4. We use two measures of the cost of borrowing: the all-in-drawn spread (*AIDSpread*), which is the amount the borrower pays in basis points over LIBOR for each dollar drawn down, and the total spread (*TotalSpread*), which is the total of the all-in-drawn and the all-in-undrawn spreads, where the all-in-undrawn spread is the amount in basis points a borrower pays for each dollar available but not yet drawn under a commitment. The coefficient on *HigherLitRisk* is negative and statistically significant in both columns, suggesting that borrowers receive less expensive loans following an increase in auditor litigation risk. The economic significance of the coefficient estimates is meaningful. For instance, the estimate in Column 4 suggests that loans received by treatment companies cost nearly 5% less in their total spreads on average than the loans received by control companies, which translates to a lower spread of 10 bps for the average loan in the sample.

In sum, the increase in the number of financial covenants and the decrease in the cost of borrowing that follows increased auditor litigation risk provide corroborating evidence that auditor litigation risk reduces the agency costs of debt.

7. Robustness of main analysis

7.1. Recent period (1999 to 2017)

A potential concern with our main analysis is that our results are driven by the rapid development of the syndicated loan market in the 1990s. If this development coincides with the expansion of auditor litigation risk, then our inferences could be suspect. To address this concern, we focus on the period from 1999 to 2017 to further identify the impact of cross-sectional variation in auditor legal liability on clients' access to private debt markets. Another advantage of this test is that the conclusions we draw are more relevant to the current regulatory environment. Recall that auditors can be held liable under common law in clients' headquarters or incorporation states, or in the auditor engagement or auditor head office states (Anantharaman et al., 2016). Because we lack data on auditor engagement and headquarters states in the main sample period, we follow Anantharaman et al. (2016) and define *HigherLitRisk* based on the higher liability between clients' headquarters and incorporation states. In this more recent sample period, we can identify the location of audit engagement offices and audit firm head offices from the Audit Analytics database. Therefore, we redefine *HigherLitRisk* based on the highest liability among client's headquarters and incorporation states and the audit firm's engagement office and head office states.¹⁹ This more inclusive definition of auditor litigation risk better captures the possibility that lenders may choose to have their cases heard in the jurisdiction with the highest auditor legal liability (i.e., forum shopping). Further, several states expand auditor legal liability before our main sample period starts in 1982.²⁰ Because they do not undergo changes in auditor legal liability during our main sample period (1982 to 1998), we count them as control states in the main analysis. In coding the cross-sectional variation in *HigherLitRisk*, we include companies in these states during the 1999 to 2017 sample period in the higher liability regimes.

Columns 1 and 2 of Table 7, Panel A show that our inferences continue to hold in the recent sample; banks are more willing to issue loans to borrowers in states with higher auditor litigation risk. In particular, the magnitudes of the coefficient estimates are not materially different from the main result in Table 2.²¹

¹⁷ Performance covenants are based on current-period profitability and efficiency indicators formulated in terms of income statement information alone or in combination with balance sheet data. Capital covenants rely on balance sheet information about the borrowers' sources of capital.

¹⁸ We also separately estimate regressions of performance and capital covenants on *HigherLitRisk* and other controls as in Table 6, Column 1 (untabulated). We find a positive and significant (at the 1% level) effect on performance covenants but no significant effect on capital covenants.

¹⁹ Note that for 83% of observations in our sample period of 1999–2017, the state of the audit engagement office coincides with the client's headquarters state.

²⁰ Below is a list of these states and the years when auditor litigation risk increases: IA (1969), ND (1974), MN (1976), PA (1978), NE (1979), KY (1981), NH (1982), and OH (1982).

²¹ In untabulated analyses, we also use the same definition of *HigherLitRisk* as in the main analysis with the 1982 to 1998 sample period. That is, *HigherLitRisk* is defined based on the client's headquarters or incorporation state. The coefficient estimates and the test statistics are slightly lower in absolute magnitudes but our inferences continue to hold. This result also implies that to the extent that the possibility of forum shopping exists, the coefficient estimates in our main analysis are likely underestimated in absolute magnitude. As a result, the bias, if any, works against our findings.

Table 7
Robustness tests.

	Recent Period (1999–2017)		DealScan Companies Only		Treatment States Only	
	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Loan</i> _{<i>t</i>+1}	<i>LogLoanAmt</i> _{<i>t</i>+1}	<i>Loan</i> _{<i>t</i>+1}	<i>LogLoanAmt</i> _{<i>t</i>+1}	<i>Loan</i> _{<i>t</i>+1}	<i>LogLoanAmt</i> _{<i>t</i>+1}
Panel A: Alternative Samples						
HigherLitRisk	0.023*** (4.915)	0.123*** (4.268)	0.018** (2.16)	0.123*** (2.66)	0.018*** (2.85)	0.135*** (3.44)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	No	No	No	No
Company FE	No	No	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	55,808	55,808	35,274	35,274	36,628	36,628
Adj. R ²	0.19	0.24	0.17	0.65	0.22	0.66
	<i>HigherLitRisk</i> = 1		<i>HigherLitRisk</i> = 0		Total	
Panel B: Concordance Between Measures in Our Study and Anantharaman et al. (2016)						
<i>TPLDummy</i> = 1	35,619 (64%)		15,846 (28%)		51,465 (92%)	
<i>TPLDummy</i> = 0	1,818 (3%)		2,525 (5%)		4,343 (8%)	
Total	37,437 (67%)		18,371 (33%)		55,808 (100%)	
	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Loan</i> _{<i>t</i>+1}	<i>LogLoanAmt</i> _{<i>t</i>+1}	<i>Loan</i> _{<i>t</i>+1}	<i>LogLoanAmt</i> _{<i>t</i>+1}	<i>Loan</i> _{<i>t</i>+1}	<i>LogLoanAmt</i> _{<i>t</i>+1}
Panel C: Alternative Auditor Litigation Risk Measures						
<i>TPLDummy</i>	0.016* (1.88)	0.108** (2.07)				
<i>TPLIndex1to6</i>			0.004** (2.11)	0.031*** (2.66)		
<i>TPLIndex1to9</i>					0.003 (1.63)	0.019** (2.14)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	55,808	55,808	55,808	55,808	55,808	55,808
Adj. R ²	0.19	0.24	0.19	0.24	0.19	0.24

This table reports the results of robustness tests. Panel A provides tests using three different samples *Loan*_{*t*+1} equals one if a company receives at least one bank loan in fiscal year *t*+1, zero otherwise. *LogLoanAmt*_{*t*+1} equals the logarithm of one plus the average amount of bank loans (in \$ millions) that a company receives in fiscal year *t*+1. Columns 1 and 2 report the estimates for the effects of auditor litigation risk on clients' access to private debt markets using a more recent sample period of 1999 to 2017. Columns 3 and 4 limit the sample to those companies that have at least one DealScan loan during the sample period of 1982 to 1998. Columns 5 and 6 use company-year observations for the treatment states only. Panel B presents how our classification of high and low auditor litigation risk regimes maps onto the 0 or 1 variable (*TPLDummy*) in Anantharaman et al. (2016) using data from 1999 to 2017. Panel C reports the estimates for the effect of changes in auditor legal liability on clients' access to private debt markets using three alternative auditor litigation risk measures based on those in Anantharaman et al. (2016). The sample period ranges from 1999 to 2017. *HigherLitRisk* 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. *HigherLitRisk* remains zero for the states that do not change auditors' litigation risk during the sample period. All specifications are estimated using OLS regressions. Test statistics (two-sided) based on robust standard errors clustered at the company level are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Appendix A details all shocks to auditor legal liability. Appendix B provides variable definitions.

The variables of interest are bolded.

7.2. DealScan companies only

DealScan data coverage in the early periods of our sample is limited. Furthermore, companies included in DealScan are significantly larger than Compustat companies. However, our results using a later sample period (1999 to 2017) in which DealScan coverage is more complete suggests that our inferences are not affected by these biases. In addition, because our shocks are exogenous, it is unlikely that the potential bias from DealScan data coverage issues is systematically different for the treatment and control groups. Nonetheless, to ensure the results are not driven by companies that are beyond the coverage of DealScan in our early sample period, we restrict our sample to companies with at least one loan in DealScan during the main sample period (1982 to 1998) and repeat our main analysis of syndicated loans. The intuition is that if measurement errors due to DealScan data coverage drive our results, then limiting our sample to only those companies that

appear at least once in DealScan during the sample period will not yield the same inferences as the full sample will. Columns 3 and 4 of Table 7, Panel A show that our main result continues to hold using this restricted sample. The coefficient on *HigherLitRisk* is positive and statistically significant in both columns and the magnitudes of the coefficient estimates are not materially different from Table 2.

7.3. Treatment states only

To ensure that our main result is not driven by the change in bank loan financing for companies in the control states, we conduct the analysis using companies in the treatment states only. In Columns 5 to 6 of Table 7, Panel A, we find that higher auditor litigation risk leads to better access to the private debt market for clients in treatment states. This result suggests that the effect we show in Table 2 is not dependent on the control group and that the treatment effect comes from the affected clients.

7.4. Alternative auditor litigation risk measures

Prior research (Anantharaman et al., 2016; Gaver et al., 2012) measures third-party liability standards using two variables: (1) an index that ranges from 1 to 9, with 1 (9) representing the most restrictive (expansive) definition of third parties who can hold the auditor liable for negligence, and (2) an indicator variable set to 1 if the state applies the restatement or reasonable foreseeability liability standards (i.e., an index value ≥ 4), 0 otherwise. In this section, we help reconcile our measure with these other measures.

In Panel B of Table 7, we provide a concordance table enumerating how the categorization of our indicator *HigherLitRisk* variable in the 1999 to 2017 sample period maps onto Anantharaman et al.'s (2016) indicator variable (i.e., *TPLDummy*). The average 0.92 value of *TPLDummy* in the panel that we calculate is very close to the average 0.94 value of *TPLDummy* reported by Anantharaman et al. (2016) in their Table 3, Panel A, suggesting that we have successfully replicated Anantharaman et al.'s (2016) coding. From Panel B, among the observations in our high liability regime (*HigherLitRisk* = 1), 95% (= 64%/67%) of these are also coded as having higher liability under the Anantharaman et al. (2016) coding. However, among observations in our lower liability regime (*HigherLitRisk* = 0), 86% (= 28%/33%) of these are coded as having higher liability under Anantharaman et al.'s (2016) coding. Thus, the key difference is that Anantharaman et al. (2016) consider many of our control states treatment states.

In reviewing the specific legal precedents that differ between us and Anantharaman et al. (2016), we highlight the following. First, Gaver et al. (2012) (on which Anantharaman et al.'s (2016) measurement of auditor legal liability is based) include cases relating to non-accounting professionals to determine whether a state has higher liability for auditors. In contrast, we focus on only auditor-specific cases for determining changes in common law precedents for auditor legal liability. Second, we adopt the more conservative approach of focusing only on court cases in which the exact year of changes in precedents specifically for auditors in a given state could be determined with high accuracy. Gaver et al. (2012) often list several cases for the same state in different years without clearly identifying which case and which year constitute the precedent-altering expansion of auditors' liability exposure. An untabulated robustness check shows that our main result holds after removing the states for which we have different classifications than Gaver et al. (2012).

In Columns 1 and 2 of Table 7, Panel C, we replace our *HigherLitRisk* measure with *TPLDummy* and continue to find that higher auditor third-party legal liability enhances clients' access to bank loans. In addition, we modify the 1 to 9 index used in Anantharaman et al. (2016) by converting it to an index that ranges from 1 to 6 (i.e., *TPLIndex1to6*), which represents privity, near privity, restatement (restrictive), restatement (typical), restatement (expansive), and reasonable foreseeability, respectively (see Table 1, Panel B in Anantharaman et al., 2016). In Columns 3 and 4, we continue to find results consistent with our main result. Finally, we also conduct the test using the original 1 to 9 index from Anantharaman et al. (2016). These results are consistent with the previous columns but they are statistically weaker (p -value = 0.103 when we use the indicator $Loan_{t+1}$ as the dependent variable in Column 5 and p -value < 0.05 when we use $LogLoanAmt_{t+1}$ as the dependent variable in Column 6).

8. The effect of auditor litigation risk on audit and financial reporting quality

In the sections above, we provide evidence of a causal relation between auditor litigation risk and clients' access to bank loans. Admittedly, the link between these two constructs is indirect. We argue that the relation is the result of the effect of auditor litigation risk on audit and financial reporting quality. In this section, we provide tests of this assertion. Our proxies for audit and financial reporting quality include accruals, going-concern opinions, restatements, audit fees, the ability of accruals to predict future cash flows, and whether a company has a Big N auditor.

8.1. Accruals

Several prior studies show that auditors curb opportunistic managerial biases in reported accounting numbers when exposed to higher litigation risk (DeFond and Subramanyam, 1998; Kim et al., 2003; Cahan and Zhang, 2006; Chy and Hope, 2020). We confirm these findings in Panel A of Table 8 in our setting. Column 1 shows that the income-increasing discretionary accruals (*DAC*) for treatment companies decline significantly relative to control companies following an increase in

auditor litigation risk. We use the [Kothari et al. \(2005\)](#) performance-adjusted model to derive our discretionary accruals measure. Our inferences remain the same when we use the [Dechow and Dichev \(2002\)](#) model or the modified [Jones \(1991\)](#) model from [Dechow et al. \(1995\)](#). We use ‘model-free’ income-increasing total accruals (*TAC*) in Column 2 to corroborate our evidence and find that the same conclusion holds.²²

8.2. Going-concern opinions and restatements

We next test whether auditor litigation risk increases auditors’ issuance of going-concern opinions and decreases the likelihood of restatements. Auditors are more likely to issue going-concern opinions when exposed to high litigation risk for two reasons. First, they may exert more effort in response to increases in litigation risk, which helps them find evidence necessitating going-concern opinions (GCOs). Second, litigation risk may increase the relative cost of a Type II opinion error (issuing a clean opinion for clients that file for bankruptcy), compared to a Type I opinion error (issuing GCOs for clients that do not file for bankruptcy) and therefore increase the propensity for auditors to issue GCOs. In Column 3 of Panel A, we find that auditors are more likely to issue modified GCOs when litigation risk is higher. Using the likelihood of restatement as another proxy for audit quality, the result in Column 4 shows that higher auditor litigation risk leads to a lower likelihood of restatements, supporting our argument that auditor litigation risk improves audit quality.²³

8.3. Audit fees

Motivated by [Bell et al. \(2001\)](#) and [Aobdia \(2019\)](#), who find that audit fees capture auditor effort and quality, we examine whether auditor litigation risk affects audit fees. In Column 5, we find weak evidence that auditor litigation risk increases audit fees (p -value = 0.056, one-tailed). This finding using state common laws is also consistent with [Badertscher et al. \(2014\)](#), who find that auditor litigation risk increases audit fees under federal laws.

8.4. Ability of accruals to predict future cash flows

We follow [Minnis \(2011\)](#) by examining the extent to which current reported earnings performance is informative of future cash flows. Consistent with an improvement in financial reporting quality, we expect that the relation between current earnings and future cash flows should strengthen following an increase in auditor litigation risk. Providing support for this idea, the result in Column 1 of [Table 8](#), Panel B shows that net income for companies in the high litigation risk regime is more positively associated with future operating cash flows than for companies in the low litigation risk regime. To rule out the potential explanation that cash flows are more persistent than accruals ([Richardson et al., 2005](#)) and that the difference we find in Column 1 is driven by more persistent cash flows underlying the net income, we follow [Minnis \(2011\)](#) to decompose net income into operating cash flows and accruals. The result in Column 2 shows that accruals map better onto future operating cash flows after auditor litigation risk increases, suggesting that accounting information may be more informative to lenders in predicting future cash flows when auditor litigation risk is higher.

8.5. Switch to a big N auditor

The literature ([DeFond and Zhang, 2014](#)) generally shows that Big N auditors provide higher audit quality. If increases in auditor litigation risk lead lenders to switch to a Big N auditor, then a higher percentage of treatment clients being audited by Big N auditors could represent an additional mechanism that explains our main result.²⁴ Panel C of [Table 8](#) provides a test of this idea using a sample of 2,902 company-year observations in which the company switches auditors. We estimate a model that predicts the indicator variable *SwitchToBigN*, which equals one if a company switches auditors in a given year and the new auditor is among the Big N, zero otherwise. In Column 1, the test provides no statistical evidence that a company is more likely to switch to a Big N auditor in the high auditor litigation regime. In Column 2, we find a similar lack of results when we restrict the sample to the 937 company-years in which the companies were audited by a non-Big N auditor prior to the switch. In an untabulated analysis, we again find no evidence that the likelihood of an auditor switch (versus no switch) changes after an increase in auditor litigation

²² In untabulated analyses, we divide the accruals measures into positive and negative discretionary (total) accruals and examine how the unsigned measures of positive and negative discretionary (total) accruals react to an increase in auditor legal liability. We find that while the unsigned positive discretionary and positive total accruals decline significantly following an increase in auditor legal liability, the corresponding negative discretionary and negative total accruals do not change significantly. Consistent with [Lennox, Wu, and Zhang \(2016\)](#), our findings suggest that auditors are more concerned about optimistic biases in earnings than about pessimistic biases.

²³ The sample period for the GCO test is from 1988 to 1998 because the data are not available for the first six years of our main sample period (i.e., from 1982 to 1987). For the restatement test in this section and the audit fee test in Section 8.3, we use the data from 1999 to 2017 as the data are not available for our main sample period. *Restate* is an indicator variable equal to one if a client’s current-period financial statement is restated due to accounting irregularities (Audit Analytics variable “*res_accounting*”).

²⁴ This idea of auditor litigation risk leading to more companies being audited by a Big N auditor is different from the cross-sectional idea that we test in Section 5.4.3. This latter idea is that given the existence of a Big N auditor, the auditor reacts more strongly to increases in auditing litigation risk, which then leads to greater access to bank loans for client companies.

Table 8
The effect of auditor litigation risk on audit and financial reporting quality.

	(1)	(2)	(3)	(4)	(5)
	DAC	TAC	ModGC	Restate	AuditFee
Panel A: Accruals, Going-Concern Opinions, Restatements, and Audit Fees					
HigherLitRisk	-0.005*** (-4.60)	-0.005*** (-4.82)	0.040*** (2.69)	-0.018*** (-4.33)	0.029 (1.60)
Size	0.005 (1.02)	0.000 (0.04)	0.011 (1.05)	-0.000*** (-6.54)	-0.000 (-1.16)
MkBk	0.006*** (9.02)	0.009*** (11.74)	-0.008*** (-3.00)	0.001 (1.35)	0.001** (2.31)
Age	-0.009*** (-3.84)	-0.026*** (-8.46)	0.011 (0.59)	-0.014*** (-4.75)	0.005** (2.09)
PPE	-0.032*** (-3.30)	-0.202*** (-17.31)	-0.038 (-0.80)	-0.013 (-1.08)	-0.006 (-0.44)
R&D	-0.050** (-2.53)	-0.211*** (-10.51)	0.123* (1.66)	-0.040*** (-3.47)	0.005 (0.40)
CurrentRatio	0.008*** (20.92)	0.011*** (21.01)	-0.006*** (-3.59)	-0.001* (-1.90)	-0.000** (-2.06)
Cash	-0.184*** (-20.97)	-0.193*** (-14.41)	-0.163*** (-4.58)	-0.024* (-1.91)	0.020 (0.92)
LogSale	-0.010*** (-2.71)	-0.000 (-0.09)	-0.014 (-1.51)	0.010*** (8.19)	-0.010*** (-4.51)
Loss	-0.020*** (-9.91)	-0.089*** (-46.76)	0.093*** (8.70)	0.006 (1.13)	-0.002 (-0.83)
EarnVol	0.015 (0.89)	-0.119*** (-5.42)	0.193*** (3.55)	0.009*** (2.93)	0.000 (0.54)
Industry FE	No	No	No	Yes	Yes
Company FE	Yes	Yes	Yes	No	No
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	56,402	56,402	37,901	55,808	55,808
Adj. R ²	0.03	0.15	0.29	0.04	0.19

	(1)	(2)
	CFO _{t+1}	CFO _{t+1}

Panel B: Association between Accruals and Future Cash Flows		
HigherLitRisk	0.003 (1.61)	0.003 (1.01)
HigherLitRisk × NI	0.111* (1.96)	
NI	0.381*** (20.88)	
HigherLitRisk × TAC		0.031*** (2.76)
HigherLitRisk × CFO		0.022*** (2.73)
TAC		0.027*** (3.29)
CFO		0.026*** (4.21)
Size	-0.033*** (-9.08)	-0.030*** (-9.58)
MkBk	-0.018*** (-10.02)	-0.020*** (-21.66)
Age	0.031*** (7.67)	0.020*** (4.85)
PPE	-0.075*** (-7.12)	-0.139*** (-11.32)
R&D	-0.286*** (-7.34)	-0.746*** (-30.10)
Current Ratio	0.007*** (13.50)	0.010*** (15.90)
Cash	-0.225*** (-19.77)	-0.204*** (-18.33)
LogSale	0.044*** (15.89)	0.058*** (20.01)
Loss	0.051*** (9.83)	-0.020*** (-5.72)
EarnVol	0.044*** (2.18)	-0.116*** (-7.56)
Company FE	Yes	Yes

(continued on next page)

Table 8 (continued)

	(1)	(2)
	<i>CFO</i> _{<i>t</i>+1}	<i>CFO</i> _{<i>t</i>+1}
Year FE	Yes	Yes
Observations	56,402	56,402
Adj. <i>R</i> ²	0.58	0.54
	(1)	(2)
	<i>SwitchToBigN</i>	<i>SwitchToBigN</i>
Panel C: Switch to Big N Auditor		
<i>HigherLitRisk</i>	0.040	0.065
	(1.60)	(1.50)
<i>Size</i>	0.048***	0.003
	(3.89)	(0.13)
<i>MkBk</i>	-0.008	-0.006
	(-1.52)	(-0.62)
<i>Age</i>	-0.018	-0.024
	(-1.51)	(-1.23)
<i>PPE</i>	0.012	-0.005
	(0.26)	(-0.06)
<i>R&D</i>	0.550***	0.264
	(4.77)	(0.97)
<i>CurrentRatio</i>	0.006	0.000
	(1.51)	(0.03)
<i>Cash</i>	0.077	0.065
	(1.28)	(0.60)
<i>LogSale</i>	0.019	0.037
	(1.52)	(1.61)
<i>Loss</i>	-0.039*	-0.018
	(-1.80)	(-0.51)
<i>EarnVol</i>	-0.080	-0.019
	(-1.05)	(-0.16)
State FE	Yes	Yes
Industry FE	Yes	Yes
Year FE	Yes	Yes
Observations	2,902	937
Adj. <i>R</i> ²	0.25	0.45

This table provides an analysis of the effect of auditor litigation risk on audit and financial reporting quality. Panel A uses five different dependent variables. *DAC* is the discretionary accruals measure based on Kothari et al. (2005). *TAC* equals total accruals. *ModGC* equals one if a company receives a modified going-concern opinion in a given year, zero otherwise. *Restate* equals one if a company's financial statement is restated due to accounting irregularities in a given year, zero otherwise. *AuditFee* is audit fees scaled by total assets. The sample period ranges from 1982 to 1998 in Columns 1 and 2, 1988 to 1998 in Column 3, and 1999 to 2017 in Columns 4 and 5. Panel B reports the estimates for the effect of an increase in auditor legal liability on how well accruals map onto future operating cash flows. *CFO* is operating cash flows and *NI* is net income, both scaled by book assets. Panel C reports the estimates for the effect of an increase in auditor litigation risk on companies switching to a Big N auditor. *SwitchToBigN* equals one if a company switches auditor in a given year and the new auditor is among the Big N, zero otherwise. In Column 1, the sample includes companies that switch auditors in a given year. In Column 2, the sample is further restricted to only companies that switch and that were audited by a non-Big N auditor prior to the switch. The sample period ranges from 1982 to 1998 for Panels B and C. *HigherLitRisk* 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. *HigherLitRisk* remains zero for the states that do not change auditors' litigation risk during the sample period. All specifications are estimated using OLS regressions. Test statistics (two-sided) based on robust standard errors clustered at the company level are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Appendix A details all shocks to auditor legal liability. Appendix B provides variable definitions. The variables of interest are bolded.

risk. One explanation for the lack of results is that Big N auditors have higher reputational risk and thus are more likely to become more selective in their choice of clients after litigation risk increases. Prior work suggests that auditors respond to increased litigation risk by adjusting their client portfolios (Simunic and Stein, 1990; Krishnan and Krishnan, 1997).²⁵

²⁵ As an additional tactic to explore whether auditor litigation risk affects lenders' demand for Big N auditors, we manually sift through all the loan agreements from 1996 to 2010 to collect auditor covenants. (We thank Professor Amir Sufi at the University of Chicago for providing this data.) Specifically, we collect information about whether the loan agreement contains a clause requiring annual financial statements be audited by a Big N audit firm. We would expect the frequency of these clauses to increase following an increase in auditor litigation. Our untabulated results do not provide support for this idea—we find decreases in lenders' requirements for a Big N auditor after litigation risk increases. It is possible that Big N auditors already provided a very high audit quality prior to the change in auditor litigation risk and that this change affected non-Big N auditors to a greater degree.

8.6. Summary

While the results using these various outcomes all tend to confirm the results of prior studies linking auditor litigation to audit quality and fees, they serve several important purposes. First, even though some individual outcome tests provide only weak statistical evidence, collectively, given the wide variety of outcomes we examine, the results in this section provide strong evidence of our assertion that increases in auditing litigation risk lead to improved audit and financial reporting quality. Second, we complement these studies by documenting these relations in a setting where we can more comfortably claim these outcomes were caused by auditing litigation risk.²⁶ Third, this evidence further validates our use of the changes in state auditor legal liability as an exogenous shock to auditor litigation risk.

Table 9
The effect of auditor litigation risk on public debt financing.

	(1)	(2)
	<i>BondInd_{t+1}</i>	<i>LogBondAmt_{t+1}</i>
Panel A: Corporate Bond Access		
HigherLitRisk	0.006** (2.09)	0.070** (2.10)
Size	0.044*** (18.970)	0.537*** (18.855)
MkBk	0.003*** (5.711)	0.035*** (5.720)
Age	0.002 (1.039)	0.018 (0.932)
PPE	0.023*** (2.646)	0.263** (2.513)
R&D	-0.019* (-1.930)	-0.244** (-2.040)
CurrentRatio	-0.001*** (-2.774)	-0.010*** (-2.683)
Cash	-0.041*** (-6.536)	-0.494*** (-6.552)
LogSale	-0.009*** (-4.998)	-0.113*** (-5.019)
Loss	0.016*** (7.914)	0.200*** (8.201)
EarnVol	0.072*** (11.268)	0.879*** (11.349)
State FE	Yes	Yes
Industry FE	Yes	Yes
Year FE	Yes	Yes
Observations	56,402	56,402
Adj. R ²	0.13	0.14
	(1)	(2)
	<i>LogAccCov</i>	<i>LogYieldSpread</i>
Panel B: Corporate Bond Covenants and Borrowing Costs		
HigherLitRisk	0.065** (2.14)	-0.090*** (-3.10)
Size	-0.029* (-1.88)	-0.194*** (-6.96)
MkBk	0.023*** (3.08)	-0.115*** (-8.29)
Age	-0.052*** (-9.19)	-0.010 (-0.57)
PPE	0.170*** (3.94)	0.060 (0.43)
R&D	0.442 (1.31)	-0.772 (-0.99)
CurrentRatio	0.004 (0.24)	-0.006 (-0.47)
Cash	-0.139	1.374***

(continued on next page)

²⁶ Anantharaman et al. (2016) also use shocks to state litigation to study the effect auditor litigation risk on going-concern opinions, allowing them to draw causal inferences.

Table 9 (continued)

	(1)	(2)
	<i>LogAccCov</i>	<i>LogYieldSpread</i>
<i>LogSale</i>	(-1.21) -0.006	(8.13) 0.004
<i>Loss</i>	(-0.35) 0.022	(0.24) 0.312***
<i>EarnVol</i>	(0.57) -0.348	(4.05) 1.046***
<i>LogBondAmt</i>	(-1.46) 0.007	(3.20) 0.081***
<i>LogMaturity</i>	(0.42) -0.030***	(2.85) 0.145***
<i>LogYieldSpread</i>	(-6.81) 0.283***	(8.87)
<i>LogAllCov</i>	(23.14)	0.241***
State FE	Yes	(8.17) Yes
Industry FE	Yes	Yes
Year FE	Yes	Yes
Observations	1,495	1,495
Adj. R^2	0.53	0.67

This table presents an analysis of the effects of auditor litigation risk on corporate bonds. Panel A reports the estimates for the effect of changes in auditor legal liability on clients' access to bond markets. Panel B reports the estimates for the effect of an increase in auditor legal liability on the use of bond covenants and spreads paid in new bond issues. The unit of analysis is company-year observations in Panel A and new bond issue in Panel B. The sample period ranges from 1982 to 1998. $BondInd_{t+1}$ equals one if a company has at least one bond issue in fiscal year $t+1$, zero otherwise. $LogBondAmt_{t+1}$ is the log of (one plus) the average amount of bonds a company issues in fiscal year $t+1$. $LogAccCov$ is the log of (one plus) the number of accounting covenants contained in a bond contract. $LogYieldSpread$ is the log of offering yield spread over the benchmark treasury yield. $HigherLitRisk$ 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. $HigherLitRisk$ remains zero for the states that do not change auditors' litigation risk during the sample period. All specifications are estimated using OLS regressions. Test statistics (two-sided) based on robust standard errors clustered at the company level are reported in parenthesis. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Appendix A details all shocks to auditor legal liability. Appendix B provides variable definitions. The variables of interest are bolded.

9. The effect of auditor litigation risk on public debt financing

The evidence in the previous sections shows the impact of auditor litigation risk on clients' access to private debt. In this section, we study clients' access to public debt markets to provide additional evidence on clients' access to other forms of external financing following changes in auditor litigation. This public debt setting is different because bondholders do not have access to the private information that banks do. As such, bondholders may rely more on publicly available accounting information to monitor borrowers (Bharath et al., 2008). Hence, one could argue that if auditor litigation risk affects clients' access to bank loans, it may affect their access to bond markets to a greater extent. Bondholders, however, can sue auditors under federal securities law. Hence, changes in state common laws may have little impact on clients' access to public debt.

We conduct our bond analyses using the Mergent Fixed Income Securities Database (FISD) and present the results in Table 9. In Panel A, we test and find supporting evidence that increases in auditor litigation risk improve clients' access to bond markets.²⁷ Columns 1 and 2 show that clients in a higher auditor litigation regime are more likely to issue bonds and to issue larger amounts of bonds, respectively. To further explore the effect of auditor litigation risk on clients' public debt financing, we examine its effect on the use of bond covenants and bonds' borrowing costs. Our results are similar in spirit to those in Table 6 in which we study loan covenants and loan borrowing costs. Column 1 of Table 9, Panel B shows a significant increase in the use of accounting-based covenants following an increase in auditor litigation risk.²⁸ In Column 2, we also observe a

²⁷ The average company accesses bond markets much less frequently than they do private loan markets, which produces very little within-company variation in a company's access to bond markets. As such, we use state and industry fixed effects (similar to Table 6) instead of company fixed effects.

²⁸ Following Nikolaev (2010), the following provisions are considered accounting-related covenants: declining net worth covenants (if an issuer's net worth falls below a minimum level, then certain bond provisions are triggered), limits on outstanding debt, limits on subsidiaries' total indebtedness, a leverage test, a subsidiary leverage test, a net worth test, a net earnings test, fixed charge coverage, and subsidiary fixed charge coverage.

significant decrease in the cost of borrowing (i.e., the yield spread) in the bond market following an increase in auditor litigation risk. Overall, these bond market results, in conjunction with the bank loan analyses, provide support for the broader idea that greater auditor litigation risk leads to improved access to debt capital.

10. Conclusion

Exploiting state-level staggered shocks to third-party auditor legal liability in the U.S., we examine whether auditor litigation risk affects clients' access to private debt markets. Higher auditor litigation risk leads to improved audit and financial reporting quality, thereby reducing the agency costs of debt. Further, greater auditor legal liability strengthens the insurance role of auditing. We predict and find that higher auditor litigation risk facilitates clients' access to private debt markets. An exogenous increase in auditor litigation risk leads to an increase in clients' likelihood of receiving bank loans and in the average amount of bank loans received.

To further shed light on the mechanism through which auditor litigation risk affects debt financing, we conduct a cross-sectional analysis. The results suggest that this relation is stronger when borrowers face greater ex-ante agency costs of debt and when creditors can benefit more from auditors' enhanced insurance value. Specifically, we show that the effect of auditor litigation risk on debt financing is more pronounced for clients with higher litigation risk and more financial constraints. In support of our proposed mechanism, we find that these same shocks to auditor litigation risk lead to improvements in audit and financial reporting quality as proxied by accruals, going-concern opinions, restatements, and an improvement in the ability of accruals to predict future cash flows. We also find that increased auditor litigation risk leads to an increase in the contractibility of accounting numbers, as proxied by the use of debt covenants, and a decrease in the cost of borrowing. Finally, corroborating the bank loan analysis, we provide evidence that auditor litigation risk improves clients' access to public debt markets.

To the best of our knowledge, this is the first study that documents the effects of auditor litigation risk on clients' access to debt financing. Furthermore, our research setting increases our confidence that this relation is a causal one. While it is beyond the scope of this paper to assess whether increases in auditor litigation risk improve social welfare overall, we are able to demonstrate that companies in states with greater auditor litigation risk realize an important economic benefit by increased, and cheaper, access to debt markets.

Conflicts of interest

The authors have none to declare.

Appendix A. Changes in Auditor Litigation Risk

This table lists the auditor legal liability shocks for the sample period from 1982 to 1998 used to measure changes in auditor litigation risk.

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

Appendix B. Variable Definitions

Variables	Definitions
<i>Age</i>	Log value of the number of years a company is in the Compustat database.
<i>AuditFee</i>	Audit fees scaled by total assets.
<i>BigN</i>	Indicator variable that equals one if a company's financial statements are audited by a Big N auditor, zero otherwise.
<i>BondInd</i>	Indicator variable that equals one if a company has at least one bond issue in a given fiscal year, zero otherwise.
<i>BookAssets</i>	Book value of total assets.
<i>Cash</i>	Cash and cash equivalents scaled by total assets.
<i>CFO</i>	Operating cash flows scaled by total assets.
<i>CurrentRatio</i>	Current assets scaled by current liabilities.
<i>DAC</i>	Income-increasing performance-adjusted discretionary accruals calculated following Kothari et al. (2005) by running industry-year regressions at the SIC two-digit level with at least ten observations in each industry-year group.
<i>EarnVol</i>	Standard deviation of the current and last four years' EBITDA.
<i>FinConstraint</i>	Indicator variable that equals one if a company is more financially constrained (measured by the Kaplan and Zingales (1997) index) than its Fama-French 48 industry median, zero otherwise.
<i>HigherLitInd</i>	Indicator variable that equals one for companies in a high litigation risk industry (SIC codes 2833–2836, 3570–3577, 3600–3674, 5200–5961, 7370–7374, 8731–8734), zero otherwise.
<i>HigherLitRisk</i>	Indicator variable that moves from zero to one when (and after) states expand auditor legal liability to third parties (e.g., from <i>Privity to Restatement</i> or <i>Foreseeability</i>); it moves from one to zero when (and after) states reduce auditor legal liability to third parties (e.g., from <i>Foreseeability to Restatement</i> or <i>Privity</i>). <i>HigherLitRisk</i> 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>Loan</i>	Indicator variable that equals one if a company receives at least one bank loan in a fiscal year, zero otherwise.
<i>LogAccCov</i>	Log of (one plus) the number of accounting covenants contained in a bond contract. Following Nikolaev (2010) , the following provisions are considered accounting-related covenants in bond contracts: declining net worth covenants (if an issuer's net worth falls below a minimum level, then certain bond provisions are triggered), limits on outstanding debt, limits on subsidiaries' total indebtedness, a leverage test, a subsidiary leverage test, a net worth test, a net earnings test, fixed charge coverage, and subsidiary fixed charge coverage.
<i>LogAIDSpread</i>	Log of the all-in-drawn spread, which is the amount the borrower pays in basis points over LIBOR for each dollar drawn down.
<i>LogBondAmt</i>	Log of (one plus) the average amount of bonds (in \$ millions) a company issues in a given year; it is set to zero if a company issues no public debt in a given fiscal year.
<i>LogFinCov</i>	Log of (one plus) the number of financial covenants contained in a loan contract at inception.
<i>LogLoanAmt</i>	Log of (one plus) the average facility amount (in \$ millions) a company receives in a given year. It is set to zero if a company does not receive a bank loan in a given fiscal year.
<i>LogMaturity</i>	Log of (one plus) the average loan (bond) maturity in years.
<i>LogSale</i>	Log of sales.
<i>LogTotalSpread</i>	Log of the total of the all-in-drawn and the all-in-undrawn spreads, where the all-in-undrawn spread is the amount in basis points a borrower pays for each dollar available under a commitment but not yet drawn.
<i>LogYieldSpread</i>	Log of offering yield spread over the benchmark treasury yield.
<i>Loss</i>	Indicator variable that equals one if ROA is negative, zero otherwise.
<i>MkBk</i>	Market value of equity and debt scaled by the book value of assets.
<i>ModGC</i>	Indicator equal to one if a company receives a modified opinion in a given year and zero otherwise. Compustat classifies audit opinions into five categories: unqualified/clean opinion (coded 1), qualified opinion (2), no opinion (3), unqualified opinion with some explanatory language, i.e., "modified" opinions (4), and adverse opinions (5). We follow Anantharaman et al. (2016) in using category 4.
<i>NegativeShocks</i>	Indicator variable that equals one when (and after) states reduce auditor legal liability, zero otherwise. This variable is used for a separate test of negative shocks.
<i>NI</i>	Net income scaled by total assets.
<i>PerfRatio</i>	Ratio of the number of performance covenants to the number of performance plus capital covenants. We follow Christensen and Nikolaev (2012) in defining performance covenants and capital covenants. Performance covenants are covenants that rely on current-period profitability and efficiency indicators formulated in terms of income statement (cash flow statement) information alone or in combination with balance sheet data. Capital covenants are those that rely on information about the sources and uses of capital.
<i>PPE</i>	Property, plant, and equipment scaled by the book value of assets.
<i>PositiveShocks</i>	Indicator variable that equals one when (and after) states expand auditors' legal liability, zero otherwise. This variable is used for a separate test of positive shocks.
<i>Pre-NegativeShocks</i>	Indicator variable that equals one for treatment companies for each of the two years prior to exogenous auditor liability decreases, zero otherwise.
<i>Pre-PositiveShocks</i>	Indicator variable that equals one for treatment companies for each of the two years prior to exogenous auditor liability increases, zero otherwise.
<i>R&D</i>	Total R&D expenditures scaled by the book value of assets, set to zero if missing.
<i>Restate</i>	Indicator variable equal to one if a company's financial statement is restated due to accounting irregularities in a given year (Audit Analytics variable "res_accounting").
<i>Size</i>	Log of the book value of assets.

(continued)

Variables	Definitions
<i>SwitchToBigN</i>	Indicator variable that equals one if a company switches auditors in a given year and the new auditor is one of the Big N, zero otherwise.
<i>TAC</i>	Income-increasing total accruals. This item equals income before extraordinary items (<i>ib</i>) minus operating cash flows. Operating cash flows equal Compustat item <i>oancf</i> after 1988 and $ib - \Delta ctc + \Delta che + \Delta lct - \Delta dlc + dp$ before 1988. ΔX represents changes in <i>X</i> from last year. All variables are scaled by lagged total assets.
<i>TPLDummy</i>	Indicator variable set to 1 if the state in which a company is located or incorporated applies the restatement or reasonable foreseeability liability standards (i.e., <i>TPLIndex1to9</i> ≥ 4), 0 otherwise. (See <i>TPLIndex1to9</i> definition below.)
<i>TPLIndex1to6</i>	Index that ranges from 1 to 6 representing privity, near privity, restatement (restrictive), restatement (typical), restatement (expansive), and reasonable foreseeability, respectively.
<i>TPLIndex1to9</i>	Pacini et al. (2000b) and Gaver et al. (2012) create a third-party liability (i.e., TPL) index to measure the extent to which auditors can be held liable for negligence by third-party non-clients. The index ranges from 1 to 9, with 1 (9) representing the most restrictive (expansive) definition of third parties who can hold the auditor liable for negligence.

References

- Amiram, D., Owens, E.L., 2018. Debt Contracts, Loss Given Default and Accounting Information. Columbia University Working Paper.
- Anantharaman, D., Pittman, J.A., Wans, N., 2016. State liability regimes within the United States and auditor reporting. *Account. Rev.* 91 (6), 1545–1575.
- Aobdia, D., 2019. Do practitioner assessments agree with academic proxies for audit quality? Evidence from PCAOB and internal inspections. *J. Account. Econ.* 67 (1), 144–174.
- Armstrong, C.S., Balakrishnan, K., Cohen, D., 2012. Corporate governance and the information environment: evidence from state antitakeover laws. *J. Account. Econ.* 53 (1–2), 185–204.
- Baber, W.R., Kumar, K.R., Verghese, T., 1995. Client security price reactions to the Laventhol and Horwath bankruptcy. *J. Account. Res.* 33 (2), 385–395.
- Badertscher, B., Jorgensen, B., Katz, S., Kinney, W., 2014. Public equity and audit pricing in the United States. *J. Account. Res.* 52 (2), 303–339.
- Baylis, R.M., Burnap, P., Clatworthy, M.A., Gad, M.A., Pong, C.K., 2017. Private lenders' demand for audit. *J. Account. Econ.* 64 (1), 78–97.
- Bell, T.B., Landsman, W.R., Shackelford, D.A., 2001. Auditors' perceived business risk and audit fees: analysis and evidence. *J. Account. Res.* 39 (1), 35–43.
- Bertrand, M., Mullainathan, S., 2003. Enjoying the quiet life? Corporate governance and managerial preferences. *J. Polit. Econ.* 111 (5), 1043–1075.
- Bharath, S.T., Hertz, M.G., 2016. External governance and debt structure. *Rev. Financ. Stud.* 32 (9), 3335–3365.
- Bharath, S.T., Sunder, J., Sunder, S.V., 2008. Accounting quality and debt contracting. *Account. Rev.* 83 (1), 1–28.
- Boone, J.P., Khurana, I.K., Raman, K.K., 2011. Litigation risk and abnormal accruals. *Audit J. Pract. Theor.* 30 (2), 231–256.
- Boot, A.W., 2000. Relationship banking: what do we know? *J. Financ. Intermediation* 9 (1), 7–25.
- Cahan, S.F., Zhang, W., 2006. After Enron: auditor conservatism and ex-Andersen clients. *Account. Rev.* 81 (1), 49–82.
- Carey, M., Post, M., Sharpe, S.A., 1998. Does corporate lending by banks and finance companies differ? Evidence on specialization in private debt contracting. *J. Finance* 53 (3), 845–878.
- Carson, E., Fargher, N.L., Geiger, M.A., Lennox, C.S., Raghunandan, K., Willekens, M., 2012. Audit reporting for going-concern uncertainty: a research synthesis. *Audit J. Pract. Theor.* 32 (sp1), 353–384.
- Chava, S., Roberts, M.R., 2008. How does financing impact investment? The role of debt covenants. *J. Finance* 63 (5), 2085–2121.
- Chen, P.F., He, S., Ma, Z., Stice, D., 2016. The information role of audit opinions in debt contracting. *J. Account. Econ.* 61 (1), 121–144.
- Choi, J., Ha, W., Lee, H., 2018. Do Banks Care about Litigation against Auditors of Borrower Firms? Evidence from Bank Loan Pricing. University of Maryland Working Paper.
- Christensen, H.B., Nikolaev, V.V., 2012. Capital versus performance covenants in debt contracts. *J. Account. Res.* 50 (1), 75–116.
- Christensen, H.B., Nikolaev, V.V., Wittenberg-Moerman, R., 2016. Accounting information in financial contracting: the incomplete contract theory perspective. *J. Account. Res.* 54 (2), 397–435.
- Chy, M., Hope, O.-K., 2020. Real Effects of Auditor Conservatism. University of Toronto Working Paper.
- Costello, A.M., Wittenberg-Moerman, R., 2011. The impact of financial reporting quality on debt contracting: evidence from internal control weakness reports. *J. Account. Res.* 49 (1), 97–136.
- DeAngelo, L.E., 1981. Auditor size and audit quality. *J. Account. Econ.* 3 (3), 183–199.
- Dechow, P.M., Dichev, I.D., 2002. The quality of accruals and earnings: the role of accrual estimation errors. *Account. Rev.* 77 (s-1), 35–59.
- Dechow, P.M., Sloan, R.G., Sweeney, A.P., 1995. Detecting earnings management. *Account. Rev.* 70, 193–225.
- DeFond, M.L., Subramanyam, K.R., 1998. Auditor changes and discretionary accruals. *J. Account. Econ.* 25 (1), 35–67.
- DeFond, M., Zhang, J., 2014. A review of archival auditing research. *J. Account. Econ.* 58 (2), 275–326.
- Demerjian, P.R., 2011. Accounting standards and debt covenants: has the “balance sheet approach” led to a decline in the use of balance sheet covenants? *J. Account. Econ.* 52 (2), 178–202.
- Deng, M., Melumad, N., Shibano, T., 2012. Auditors' liability, investments, and capital markets: a potential unintended consequence of the Sarbanes-Oxley Act. *J. Account. Res.* 50 (5), 1179–1215.
- Donelson, D.C., 2013. The potential for catastrophic auditor litigation. *Am. Law Econ. Rev.* 15 (1), 333–380.
- Dulle, J.R., 1987. The last step in the expansion of accountant liability. *Mo. Law Rev.* 52 (3).
- Dye, R.A., 1993. Auditing standards, legal liability, and auditor wealth. *J. Polit. Econ.* 101 (5), 887–914.
- Firth, M., Mo, P.L., Wong, R.M., 2012. Auditors' organizational form, legal liability, and reporting conservatism: evidence from China. *Contemp. Account. Res.* 29 (1), 57–93.
- Francis, B.B., Hunter, D.M., Robinson, D.M., Robinson, M.N., Yuan, X., 2016. Auditor changes and the cost of bank debt. *Account. Rev.* 92 (3), 155–184.
- Francis, J.R., Krishnan, J., 1999. Accounting accruals and auditor reporting conservatism. *Contemp. Account. Res.* 16 (1), 135–165.
- Francis, J., Philbrick, D., Schipper, K., 1994. Shareholder litigation and corporate disclosures. *J. Account. Res.* 137–164.
- Gande, A., Lewis, C.M., 2009. Shareholder-initiated class action lawsuits: shareholder wealth effects and industry spillovers. *J. Financ. Quant. Anal.* 44 (4), 823–850.
- Gaver, J.J., Paterson, J.S., Pacini, C.J., 2012. The influence of auditor state-level legal liability on conservative financial reporting in the property-casualty insurance industry. *Audit J. Pract. Theor.* 31 (3), 95–124.
- Geiger, M.A., Raghunandan, K., 2001. Bankruptcies, audit reports, and the reform act. *Audit J. Pract. Theor.* 20 (1), 187–195.
- Gormley, T.A., Kim, B.H., Martin, X., 2012. Do firms adjust their timely loss recognition in response to changes in the banking industry? *J. Account. Res.* 50 (1), 159–196.
- Hadlock, C.J., Pierce, J.R., 2010. New evidence on measuring financial constraints: moving beyond the KZ index. *Rev. Financ. Stud.* 23 (5), 1909–1940.
- Heninger, W.G., 2001. The association between auditor litigation and abnormal accruals. *Account. Rev.* 76 (1), 111–126.
- Honigsberg, C., Rajgopal, S., Srinivasan, S., 2020. The changing landscape of auditor litigation and its implications for audit quality. *J. Law Econ.* (Forthcoming).

- Jensen, M.C., Meckling, W.H., 1976. Theory of the firm: managerial behavior, agency costs, and ownership structure. *J. Financ. Econ.* 3 (4), 305–360.
- Jones, J.J., 1991. Earnings management during import relief investigations. *J. Account. Res.* 29, 193–228.
- Kaplan, S.N., Zingales, L., 1997. Do investment-cash flow sensitivities provide useful measures of financing constraints? *Q. J. Econ.* 112 (1), 169–215.
- Kausar, A., Shroff, N., White, H., 2016. Real effects of the audit choice. *J. Account. Econ.* 62 (1), 157–181.
- Kellogg, R.L., 1984. Accounting activities, security prices, and class action lawsuits. *J. Account. Econ.* 6 (3), 185–204.
- Kim, J.-B., Chung, R., Firth, M., 2003. Auditor conservatism, asymmetric monitoring, and earnings management. *Contemp. Account. Res.* 20 (2), 323–359.
- Klasa, S., Ortiz-Molina, H., Serfling, M., Srinivasan, S., 2018. Protection of trade secrets and capital structure decisions. *J. Financ. Econ.* 128 (2), 266–286.
- Kothari, S.P., Leone, A.J., Wasley, C.E., 2005. Performance matched discretionary accrual measures. *J. Account. Econ.* 39 (1), 163–197.
- Krishnan, J., Krishnan, J., 1997. Litigation risk and auditor resignations. *Account. Rev.* 72 (4), 539–560.
- Lancaster, T., 2000. The incidental parameter problem since 1948. *J. Econom.* 95 (2), 391–413.
- Lara, J.M.G., Osma, B.G., Penalva, F., 2016. Accounting conservatism and firm investment efficiency. *J. Account. Econ.* 61 (1), 221–238.
- Lee, H.Y., Mande, V., 2003. The effect of the Private Securities Litigation Reform Act of 1995 on accounting discretion of client managers of Big 6 and non-Big 6 auditors. *Audit J. Pract. Theor.* 22 (1), 93–108.
- Lehmann, M.L., Roberts, M.R., Zender, J.F., 2008. Back to the beginning: persistence and the cross-section of corporate capital structure. *J. Finance* 63 (4), 1575–1608.
- Lennox, C., Li, B., 2012. The consequences of protecting audit partners' personal assets from the threat of liability. *J. Account. Econ.* 54 (2–3), 154–173.
- Lennox, C., Li, B., 2020. When Are Audit Firms Sued for Financial Reporting Failures and what Are the Lawsuit Outcomes? *Contemporary Accounting Research* (Forthcoming).
- Lennox, C., Wu, X., Zhang, T., 2016. The effect of audit adjustments on earnings quality: evidence from China. *J. Account. Econ.* 61 (2), 545–562.
- Levitt, A., Nicolaisen, D., 2008. Final Report of the Advisory Committee on the Auditing Profession to the U.S. Department of the Treasury. Advisory Committee on the Auditing Profession.
- Lou, Y., Vasvari, F.P., 2013. The role of reputable auditors and underwriters in the design of bond contracts. *J. Account. Audit Finance* 28 (1), 20–52.
- Lys, T., Watts, R.L., 1994. Lawsuits against auditors. *J. Account. Res.* 65–93.
- MacKinnon, J.G., Webb, M.D., 2017. Wild bootstrap inference for wildly different cluster sizes. *J. Appl. Econom.* 32 (2), 233–254.
- Melnik, A., Plaut, S., 1986. Loan commitment contracts, terms of lending, and credit allocation. *J. Finance* 41 (2), 425–435.
- Minnis, M., 2011. The value of financial statement verification in debt financing: evidence from private US firms. *J. Account. Res.* 49 (2), 457–506.
- Myers, S.C., 1977. Determinants of corporate borrowing. *J. Financ. Econ.* 5 (2), 147–175.
- Nikolaev, V.V., 2010. Debt covenants and accounting conservatism. *J. Account. Res.* 48 (1), 137–176.
- Pacini, C., Hillison, W., Sinason, D., 2000. Three's a crowd: an examination of state statutes and court decisions that narrow accountant liability to third parties for negligence. *Adv. Account.* 17, 151–185.
- Richardson, S.A., Sloan, R.G., Soliman, M.T., Tuna, I., 2005. Accrual reliability, earnings persistence and stock prices. *J. Account. Econ.* 39 (3), 437–485.
- Robin, A., Wu, Q., Zhang, H., 2017. Auditor quality and debt covenants. *Contemp. Account. Res.* 34 (1), 154–185.
- Scherl, J.B., 1994. Evolution of auditor liability to noncontractual third parties: balancing the equities and weighing the consequences. *Am. Univ. Law Rev.* 44, 256–289.
- Schwartz, R., 1997. Legal regimes, audit quality and investment. *Account. Rev.* 72 (3), 385–406.
- Simunic, D.A., Stein, M.T., 1990. Audit risk in a client portfolio context. *Contemp. Account. Res.* 6 (2), 329–343.
- Vashishtha, R., 2014. The role of bank monitoring in borrowers' discretionary disclosure: evidence from covenant violations. *J. Account. Econ.* 57 (2–3), 176–195.
- Venkataraman, R., Weber, J.P., Willenborg, M., 2008. Litigation risk, audit quality, and audit fees: evidence from initial public offerings. *Account. Rev.* 83 (5), 1315–1345.
- Vick, S., 1992. *Bily v. Arthur Young & Co.*: is limiting auditor liability to third parties favoritism or fair play? *Loyola Los Ang. Law Rev.* 26.
- Watts, R.L., Zimmerman, J.L., 1986. *Positive Accounting Theory*. Prentice-Hall, Englewood Cliffs, NJ, 1986.
- Whited, T.M., Wu, G., 2006. Financial constraints risk. *Rev. Financ. Stud.* 19 (2), 531–559.
- Wiener, H.B., 1982. Common law liability of the Certified Public Accountant for negligent misrepresentation. *San. Diego Law Rev.* 20 (2).
- Willenborg, M., 1999. Empirical analysis of the economic demand for auditing in the initial public offerings market. *J. Account. Res.* 37 (1), 225–238.
- Yu, H.-C., 2011. Legal systems and auditor independence. *Rev. Account. Stud.* 16 (2), 377–411.
- Yuan, Q., Zhang, Y., 2015. Do banks price litigation risk in debt contracting? Evidence from class action lawsuits. *J. Bus. Finance Account.* 42 (9–10), 1310–1340.
- Zhang, J., 2008. The contracting benefits of accounting conservatism to lenders and borrowers. *J. Account. Econ.* 45 (1), 27–54.
- Zhang, P., 2007. The impact of the public's expectations of auditors on audit quality and auditing standards compliance. *Contemp. Account. Res.* 24 (2), 631–654.