

Auditor Communication Provisions in Private Loan Agreements: Do They Matter?

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SUMMARY: We examine auditor communication provisions (ACPs) in private loan agreements, which are private contracting mechanisms establishing communication between lenders and their borrowers' auditors. We provide evidence that lenders value auditor communications and often specify different types of ACPs that facilitate lender monitoring. With predictable variation across the different ACP types, ACPs are associated with larger loans, longer maturities, larger loan syndicates, more financial covenants, and greater slack in financial covenants. In examining audit effort implications for borrowers, we find that ACPs are associated with higher audit fees and longer audit report lags. This is consistent with auditors responding to the litigation risk ACPs impose. In samples where the risk of third-party litigation is greater, the association between ACPs and audit effort proxies is heightened, suggesting the increased litigation risk brought about by ACPs interacts with other audit client-specific risk factors.

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I. INTRODUCTION

In this study we examine whether information requested by lenders that is provided by the borrower's auditor adds value in the private debt contracting process, and whether this has implications for debt contract design and audit outcomes. Research suggests that publicly available audit opinions and auditor changes provide useful information to lenders and affect debt contracting outcomes (Chen, He, Ma, and Stice 2016; Francis, Hunter, D. Robinson, M. Robinson, and Yuan 2017). However, our understanding of the usefulness of additional auditor communication and

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information in debt contracting is very limited. DeFond and Zhang (2014) suggest that research on auditor communication is largely limited to going concern audit opinions and internal control opinions. We extend the literature by examining communication provisions involving borrowers' auditors and lenders in privately negotiated loan agreements, which are not mandated by regulation, and which go beyond traditionally examined audit opinions.

Employing a large sample of private loan agreements from 2000 through 2018 we examine three specific types of auditor communication provisions (ACPs) in debt contracts: (1) provisions for direct communication and discussion between the lender and the borrower's auditor on borrower issues; (2) provisions providing lenders with copies of written communications between borrowers and their auditors (such as management letters); and (3) provisions requesting the borrower's auditor communicate with the lender via certification that they have no knowledge the borrower is in violation of any debt covenants.¹ We provide evidence that lenders demand and value such auditor communications. In our sample of privately negotiated loan contracts, 82 percent contain provisions that allow lenders to *directly* communicate with the borrower's auditor. Also, lenders request access to written communication between the borrower and their auditor, and request the auditor certify it has no knowledge of default or covenant violations in 41 and 36 percent of loan agreements, respectively. Collectively, our evidence suggests that ACPs are commonly used in private loan agreements, and that the majority of loans allow lenders, as third parties, to directly communicate with the borrower's auditor and discuss the borrower's financial condition.

We argue that ACPs add value in the debt contracting process and that borrowers consider and trade off the potential costs and benefits associated with ACPs. Although this tradeoff may vary across borrowers, there are some overall influences that factor into the net value of ACPs. On the one hand, the additional auditor communication and information provided through ACPs can mitigate information asymmetry between borrowers and lenders and facilitate lenders' monitoring of the borrowers. Therefore, we hypothesize that including ACPs in loan agreements can allow borrowers to bargain for more favorable loan terms. In empirical tests, we find that ACPs are associated with larger loans, longer maturities, larger loan syndicates, and greater covenant slack at loan inception (i.e., a lower *ex ante* likelihood of covenant violation). In addition, ACPs are also more likely when lender reliance on accounting numbers in financial covenants is higher. We also find that the provision providing lenders access to management letters is less important, exhibiting mostly insignificant coefficients in loan terms regressions. This pattern of results may arise because the management letter provision requires no direct communication between a borrower's auditor and lenders. The no-default certification provision appears to be the most important in helping lenders determine how much they should rely on accounting numbers in financial covenants to evaluate borrower performance.

ACPs may also increase auditors' litigation risk because banks (being a known third party relying on the information obtained through these loan provisions) have the ability and potential cause to bring litigation against the borrower's auditor. A bank's legal standing in such situations is also consistent with anecdotal evidence, the view of practitioners and auditors' legal counsel, and numerous legal cases (e.g., Sterna 2013; *European American Bank v. Strauhs & Kay* 1984).² Consequently, we also expect ACPs to have implications for audit engagements and predict that ACPs in loan agreements are positively associated with the effort put forth by the borrower's auditor and with audit quality. In empirical tests, we find that the existence of ACPs is associated with proxies for auditor effort, including higher audit fees and longer audit lags for borrowers. In cross-sectional analyses, we find that these associations are significantly stronger in subsamples where we expect the exposure to third-party litigation risk to be high. In the high litigation risk samples, ACPs are also associated with discretionary accruals and restatements as proxies for audit quality. Thus, the positive association between ACPs and audit effort appears to strengthen when the risk of third-party litigation increases, leading to improvements in audit quality.

Our study makes several contributions to the literature. First, by examining multiple ACPs, our study contributes to the scant literature on the value of auditor communications in the debt contracting process that go beyond the audit opinion. Our study is the first to examine a comprehensive set of ACPs and provide evidence of the role they play in negotiating major loan terms.³ Importantly, the existence and usage of direct communication provisions in loan agreements is undocumented in the prior literature. Its popularity shows that direct auditor communication is an important

¹ Our third provision dealing with covenant certification is similar to that analyzed by Baylis et al. (2017), who investigate the demand for auditors certifying a borrower has not violated covenants associated with debt agreements. As fully articulated later in the paper, our study builds upon Baylis et al. (2017), but also substantially extends the literature.

² For example, Lys and Watts (1994) show that over 60 percent of the lawsuits in their sample are brought by nonclient third parties, including creditors and shareholders. Further, Sterna (2013) reports that in 2012, nonclient third parties made up 22 percent of all audit, review, and compilation claims experienced by the AICPA Professional Liability Program.

³ In doing so we extend the work of Baylis et al. (2017) by taking a holistic view of auditors' role in debt contracting, examining not only the covenant certification ACP (which is the least common ACP and exhibits a steady downward trend in usage over time), but also ACPs providing lenders with copies of management letters and the opportunity to communicate directly with borrowers' auditors. Additionally, we examine debt contract design, as well as audit fee, effort, and quality implications of all three provisions.

private information channel and monitoring mechanism for lenders. Although auditors are typically bound by client confidentiality, lenders often overcome this restriction and enjoy the privilege of direct access to, and discussion with, borrowers' auditors through privately negotiated loan contract provisions. Second, we contribute to the debt contracting literature by improving our understanding of the cost-benefit tradeoff faced by private contracting parties during the loan negotiation process. Our evidence suggests that the tradeoff faced by debt contracting parties is not limited to loan terms and debt contract negotiation itself, but can also involve follow-on audit costs and benefits, such as the impact on audit fees, effort, and quality. We provide new insights by examining the impact these ACPs have on audit outcomes. Our study suggests that ACPs can facilitate informed decisions in debt markets, mitigate frictions for lenders in deciding to issue a loan, and reduce the overall risk for a specific loan given the increase in information. Audit practitioners can make use of our conclusions when evaluating the overall risk of performing an external audit for a particular client and the extent to which ACPs may heighten an auditor's litigation risk.

II. LITERATURE REVIEW AND INSTITUTIONAL SETTING

Private Information Gathering by Lenders

Both asymmetric information and incentive discord result in agency costs when firm managers seek external financing (Jensen and Meckling 1976). In this framework, lenders must monitor borrowers to protect their investments. Research provides evidence that private lenders respond to agency problems with adjustments to monitoring and information acquisition (Plumlee, Xie, Yan, and Yu 2015; Roberts and Sufi 2009; Bushman, Smith, and Wittenberg-Moerman 2010). Further, Chen et al. (2016) finds that, using private information, banks can make timely adjustments to loan contract terms before the announcement of misstatements. However, and importantly, these studies do not often identify or discuss the specific mechanisms or channels by which the transfer of private information occurs.⁴ Our study contributes to this stream of literature as we investigate the role of auditors as another important source of private information in debt contracting by focusing on auditor communication contract provisions.

Demand for Audit Verification in Private Debt Contracting

The literature that investigates the role of a borrower's auditor in the contracting process between borrowers and lenders can be decomposed into three categories: one addressing the verification role of auditors in contracting, a second addressing the response of lenders to information provided by the auditor that is made public, and a third addressing the facilitation role of auditors in private information transfer. Regarding categories one and two above, the terms of private and public debt contracts have been shown to vary with the degree of audit verification (e.g., Minnis 2011; Dhaliwal, Gleason, Heitzman, and Melendrez 2008; Pittman and Fortin 2004). In addition, both covenant violations and covenants restricting the borrower from receiving a going-concern opinion are associated with a higher level of audit verification (Jiang and Zhou 2017; Menon and Williams 2016). Loan terms also respond to public signals, including modified audit opinions and auditor changes (Chen et al. 2016; Francis et al. 2017).

Of most relevance to our study is the role auditors serve in lender acquisition of private information about borrowers (category three). Work in this area is scant because of the difficulty in identifying private communications between a borrower's auditor and lenders. Baylis, Burnap, Clatworthy, Gad, and Pong (2017) examine private lenders' demand for auditor verification of borrower compliance with financial covenants. They find that no-default certification provisions in loan contracts are associated with the number of covenants, intangibility of the borrower's assets, the size of the loan syndicate, and loan maturity.⁵

Importantly, ours is the first study to examine a more comprehensive set of debt contract provisions that involve auditor-lender communication by searching for all possible types of ACPs in loan contracts from the "ground up."⁶ These include not only the no-default certification provision in Baylis et al. (2017), but also the direct auditor-lender

⁴ A notable exception to this is Carrizosa and Ryan (2017), who analyze the language in private loan agreements and highlight two specific mechanisms through which lenders obtain private information from borrowers: projected pro forma financial statements and monthly historical financial statements. The authors provide evidence that these private information mechanisms enhance monitoring by lenders.

⁵ Our study contributes important knowledge to this literature stream. Although Baylis et al. (2017) examine the determinants of a contracted provision stipulating one specific type of communication between a borrower's auditor and lenders (no-default certification), we examine the value of ACPs in the private debt contracting process and the impact of auditor liability on audit fees, effort and quality. Although Baylis et al. (2017) conjecture covenant compliance provisions may be economically important because of their effect on auditor liability, their study focuses only on the demand for (i.e., the determinants of) the existence of covenant compliance provisions. Thus, our study contributes significantly to this literature in that understanding the value of ACPs and the outcomes associated with them provides important knowledge to lenders, borrowers, and auditors on whether to choose to include such provisions in loan agreements.

⁶ See Section IV for details on how we identify these ACPs.

communication provision and written auditor-lender communication provision (including management letters), both of which are more prevalent than the certification clause in our sample of debt contracts. These are also very different in nature from the no-default certification provision because they convey a much wider variety of information than simply whether a borrower is in default of covenants.

Legal Background of Auditors' Liability to Third Parties

Auditors are liable both to their clients and to third parties who rely on audited financial statements. Studies suggest that auditors are subject to significant legal liability from such third parties.⁷ Importantly, only buyers and sellers of securities may sue under federal securities laws (e.g., Section 10b-5 of the Exchange Act of 1934). The consequence of this is that other parties, such as banks and other private lenders, hold auditors liable primarily under common law which evolves at the state level (Pacini, Martin, and Hamilton 2000; Anantharaman, Pittman, and Wans 2016).

State court judges have applied varying standards for auditor liability to third parties. Across states, four legal criteria have evolved to define which nonclient third parties can sue auditors for negligence. These four criteria are (1) privity, (2) near privity, (3) the known users (or restatement) approach, and (4) the reasonable foreseeability standard. Privity and near privity are relatively restrictive standards of auditor liability to third parties. For an auditor to be liable to a third party under the privity standard, a *contractual relationship* must exist between the auditor and the third party. The near privity standard requires the third party be an *intended beneficiary* of the contract in a relationship that approaches privity.

In contrast, the reasonable foreseeability standard is the most expansive standard for third-party liability. Under this standard, an auditor has a duty to all those the auditor should *reasonably foresee* as receiving and relying on the audited statements.⁸ Finally, the restatement standard establishes a middle ground between the privity and reasonable foreseeability standards, and is now the primary approach to auditor liability in the U.S. Under this approach, an auditor can be liable to a nonclient third party if the auditor *knows the third party will rely on the auditor's work*, or the auditor *knows the client intends to supply the information* provided by the auditor to the third party. This is important when considering loan provisions that involve the auditor because a contracted agreement whereby the auditor provides additional, private information to a lender can help the lender better monitor the borrower. However, this also puts the auditor at heightened litigation risk in situations where the borrower defaults on the loan.⁹

Prior third-party legal cases provide anecdotal evidence that ACPs in loan agreements can have implications for auditor liability to private lenders. For example, in *Credit Alliance v. Arthur Andersen & Co.* and its companion case, *European American Bank v. Strauhs & Kay* 1984, the New York Court of Appeals concluded a third party can recover damages for negligence if the auditor was aware the financial statements were to be used for a particular purpose on which known parties were going to rely, and there was some auditor conduct "linking" them to that party. This linkage must evidence the auditor's understanding of that party's reliance on the audited financial statements. Specifically, in the *European American Bank* case the Court held that because the auditor had made *direct and repeated communications* to the bank with respect to the audit and the company's financial statements, the parties had developed a relationship "sufficiently approaching privity" (Shore 2000).¹⁰

III. HYPOTHESIS DEVELOPMENT

Hypotheses Related to Contract Design

Our first prediction focuses on the impact of ACPs in debt contract design. We argue that additional auditor-bank communication, more specifically the information associated with ACPs, can mitigate information asymmetry between

⁷ For example, Lys and Watts (1994) show that over 60 percent of the lawsuits against auditors in their sample are brought by nonclient third parties, including creditors and shareholders.

⁸ The duty extends only to those users whose decisions are influenced by audited statements obtained from the audited entity for a proper business purpose.

⁹ See Anantharaman et al. (2016) for a more specific and detailed discussion of these legal issues.

¹⁰ In another case, *Security Pacific Business Credit v. Peat Marwick Main & Co.* 1992, the bank officer made a phone call to the audit partner to discuss the status of the audit and also discussed with the audit partner the Company's net income and the adequacy of reserves for accounts receivable. The audit partner assured the bank officer they were "comfortable" with the financial statements and would be issuing an unqualified opinion. When the company failed and the loan went into default, the bank sued the auditor, who responded with the defense of lack of privity and lack of sufficient contact to create liability. The New York Court of Appeals concluded that one telephone conversation was not sufficient to bring the bank within the scope of those who are "sufficiently approaching privity." In fact, the Court went to great lengths to distinguish the "single phone call" in this case from the "multiple, direct, and substantive communications and personal meetings" which gave rise to liability in the *European American Bank* case (Augenbraun 1993).

borrowers and lenders and facilitate lenders' monitoring of borrowers. Specifically, ACPs can improve lenders' information set regarding borrowers' financial health and covenant compliance. For example, no-default covenant certifications supplied by auditors improve lenders' information by independently confirming assertions made by borrowers regarding their compliance with covenants. Direct communication between lenders and auditors can also serve such a confirmation role, in addition to providing richer and timelier information regarding borrowers' financial health. Receiving copies of audit-related communication provides lenders with a view of internal controls and significant audit issues that may impact the quality of information lenders receive from borrowers. Because of these information effects, we expect ACPs to have a first-order effect on how contracting parties design contract terms at loan initiation. We predict that as lenders' commitment to a borrower grows, through larger loan amounts and/or longer maturities, the risk of investing increases and lenders will respond by monitoring the borrower more closely and demanding greater independent confirmation of disclosures made by the borrower in the form of ACPs (Baylis et al. 2017). Since ACPs can mitigate information asymmetry between borrowers and lenders, we expect borrowers that agree to the inclusion of ACPs in loan agreements to be able to obtain loans of larger amounts and longer maturities. In addition, research also shows that information improvements arising from high quality auditing can reduce information asymmetry within a syndicate (e.g., Kim and Song 2011; Ma, Stice, and Wang 2019), potentially allowing for larger syndicates. We state our first hypothesis in the alternative form.

H1: ACPs in loan agreements are positively associated with loan amounts, loan maturities, and the number of lenders in the loan syndicates.

Studies conclude that lenders use financial covenants to monitor borrowers and that covenants are usually set tightly to facilitate timelier lender interventions when a borrower's performance deteriorates (e.g., Christensen and Nikolaev 2012). If ACPs also facilitate timelier communication of information, we expect them to increase with the extent of reliance by lenders on accounting numbers in financial covenants (Baylis et al. 2017). Essentially, ACPs and financial covenants complement each other. In addition, if ACPs yield information benefits for lenders, borrowers may be able to bargain in exchange for greater covenant slack (i.e., less-tight covenant thresholds), because ACPs help satisfy the lenders' monitoring needs.

H2: ACPs in loan agreements are positively associated with the number of financial covenants and the amount of slack built into the financial covenants.

Up to this point in our hypothesis development, we have not distinguished among the three types of ACPs. However, there may be variation in the amount of monitoring benefit each ACP type provides. For example, the direct communication provision and the covenant compliance certification provision both entail correspondence directly between lenders and borrowers' auditors. This direct correspondence is likely to facilitate information flow of particular interest to lenders, including borrowers' credit quality, performance, and financial position. On the other hand, the management letter provision only provides indirect communication. Management letters are prepared by auditors for management. The ACP merely stipulates that these communications be forwarded to the third-party bank. Although the information in management letters related to internal controls and other audit-related discussion may indirectly inform lenders about relevant topics, we argue that the relevant information transfer occurring through the management letter ACP is likely to be less meaningful than what occurs with the other two, more direct, ACPs. We consider this conjecture when discussing results in Section IV.

Hypotheses Related to Audit Effort

Our next hypotheses focus on the implications of ACPs for the auditors involved. As discussed above, it is important for some conduct to exist "linking" the auditor to a third party to hold an auditor liable for damages. Although lenders use a borrower's audited financial statements to assess risk and make lending decisions, we conjecture that ACPs in debt contracts can be used as additional evidence to "link" the borrower's auditor to lenders. This directly exposes the auditor to increased litigation risk. In the case where a borrower subsequently defaults on a loan, the lender may attempt to hold the auditor liable for damages to the extent the lender relied on the private information the auditor provided. Our conjecture here is consistent with numerous prior legal cases (e.g., *European American Bank v. Strauhs & Kay* 1984; *Security Pacific Business Credit v. Peat Marwick Main & Co.* 1992).

Auditors may increase their effort during the overall financial statement audit process in response to this increased litigation risk. This could be the case because the auditor now has an additional motivation to ensure the client's financial statements are as accurate as possible, as there are both public and private-contracting consequences for poor audit quality. For example, in the extreme, if an audit failure occurs whereby a borrower client must restate its financial

statements, and these restated financial statements lead to a covenant violation, the auditor is exposed not only to the possible litigation risk from shareholders due directly to the restated financial statements, but also to the lender for providing false or inaccurate information used to approve and monitor the loan. Based on these arguments, we expect auditors will expend greater effort in their audits to mitigate the heightened exposure to litigation risk arising from ACPs.¹¹ We state our next hypothesis as follows:

H3a: Audit effort is greater for borrowers with loan agreements that include ACPs.

Importantly, the third-party litigation risk discussed above is a baseline level increase due to the presence of an ACP. However, some audit clients are riskier than others overall from a standpoint of third-party litigation risk, wherein clients' lenders are a significant third party. We argue these two types of litigation risk (i.e., the risk deriving from the presence of ACPs and the risk related to overall third-party litigation) are interactive in nature because they arise from different areas. Even so, they are likely not completely inseparable given that trial juries (i.e., those who ultimately hold auditors liable) may or may not be able to fully differentiate one from the other as juries are deficient in understanding even basic economic principles (Hans 1989). Therefore, when an ACP is present, we argue the litigation risk arising from a client's other characteristics may become more linked to the auditor in a legal sense whereby a jury (or simply the threat of a jury trial) ultimately drives the outcome of a lawsuit. Therefore, we argue that when overall third-party litigation risk is heightened, ACP-related risk becomes more salient to the auditor. We argue this salience leads to an interaction effect whereby the ACP-related litigation risk premium is stronger when third-party litigation risk is heightened. We state this final hypothesis formally as follows:

H3b: Any audit effort response to the presence of ACPs in loan agreements is stronger when third-party litigation risk is heightened.

IV. DATA, RESEARCH DESIGN, AND RESULTS

Collection of Loan Agreements and Identification of ACPs

We first gather private loan contracts from SEC filings for a sample period from 2000 to 2018.¹² Specifically, we follow the algorithm in Beatty, Cheng, and Zach (2019) in identifying these loan contracts. We then match the contracts with DealScan observations by GVKEY and contract date using the DealScan-Compustat linking table that is made available by Michael Roberts.¹³ After these steps, we match 10,198 private loan agreements to DealScan loan packages.¹⁴

To identify ACPs in loan agreements we first randomly selected 50 of the loan agreements we collected and searched for auditor keywords, including "audit," "auditor," "auditing," "attestation," "certified public accountant," "accounting firm," and "independent public accountant." We determine that in addition to the provisions related to audited financial statements, there are three types of ACPs in loan agreements. First, lenders very often specify provisions that allow them direct access to the borrower's auditor to discuss with them the affairs of the borrower. For deals that include this provision, we create and code the variable *DISCUSS* as equal to 1. Second, lenders often require borrowers to provide copies of any written communications (such as management letters) between the borrowers and their auditors. For these observations, the variable *MGMT_LETTER* is equal to 1. Third, lenders may also request that a borrower's auditor certify they have no knowledge that the borrower is in default or violation of any existing debt covenants. In these cases, the variable *CERTIFY_COV* is equal to 1. Appendix A presents detailed examples of each of the three types of ACPs we identify in the study.

After identifying these three types of ACPs, we then develop a search algorithm to capture each type of provision across our full sample of loan agreements. Using a Perl script, we train our search algorithm using the 50 randomly

¹¹ In addition to the indirect effect of ACPs on audit effort through litigation risk, the carrying out of actual duties related to ACPs in loan agreements can require additional effort on the part of the auditor. This type of auditor effort is *directly* related to the auditor's compliance with ACPs. We believe this direct effort is unlikely to be significant compared to the litigation risk concerns described above. This is because auditing standards state that auditors are only required to offer negative assurance to lenders, and auditors do not materially increase their workload because of such obligations (AS 3305; Baylis et al. 2017). We also note that audit fees may increase due to ACPs without regard to any increase in audit effort. Exposure to litigation risk that comes with ACPs may lead directly to a fee premium being charged to the audit client to compensate for an increase in risk on the part of the auditor.

¹² These contracts are publicly available because the SEC requires public companies to disclose copies of all material contracts. These loan contracts typically appear as exhibits in 10-K, 10-Q, or 8-K filings.

¹³ For details on the construction of the linking file, see Chava and Roberts (2008).

¹⁴ Loan agreements correspond to individual DealScan deals, also called packages, which can and often do contain multiple loan facilities.

TABLE 1
Sample Selection

Panel A: Loan Contracting Outcome Tests

Description	Contracts
Sample of loan contracts merged with DealScan (2000–2018)	10,198
Require borrower financial data	(4,373)
Require loan attributes	(281)
Require auditor and lender data	(265)
Observations available for loan outcome tests	5,279

Panel B: Audit Outcome Tests

Description	Firm-Years			
Sample of loan contracts merged with DealScan (2004–2018; contracts = 7,489)	21,013			
Base sample of fiscal years between the contract start and end dates				
	Audit Fees	Audit Lags	Accruals	Restatements
Require control variables	(9,462)	(10,997)	(12,443)	(12,252)
Observations available for tests	11,551	10,016	8,570	8,761

For loan tests (as described in Panel A of this table), the unit of analysis is the loan contract. If a contract has multiple facilities, we select the largest facility to represent the contract. In loan tests requiring the additional variable *COV_SLACK* (i.e., Table 4, Panel B), the sample is further reduced to 4,056 observations. For audit outcome tests (as described in Panel B of this table), the unit of analysis is the firm-year. We begin by expanding the sample to include one observation for each fiscal year end that lies between the start and end dates of each contract. Only firm-years with at least one outstanding loan from our sample are included. Then, because some firms in our sample have more than one contract in force during a given year, we collapse the data to the firm-year level. See Section IV for a description of this process.

selected contracts in order to improve its accuracy. Finally, we test our search algorithm by using a separate, randomly selected sample of 250 loan agreements and manually verify whether the three types of ACPs are identified accurately in each of the 250 agreements. Our final algorithm is able to identify ACPs very accurately, producing a false positive (negative) rate of only 0.6 (2.1) percent. We then apply the search algorithm to the entire loan agreement sample and generate indicator variables for the three types of ACPs. Ours is the first study to conduct such a comprehensive search for auditor-related loan provisions in contracts between lenders and borrowers. In doing so, we find and identify two important provisions (*DISCUSS* and *MGMT_LETTER*) that have not been previously identified or analyzed.

Sample Selection

Table 1, Panel A provides a summary of our sample selection for the tests we conduct at the loan contract level. There is only one observation for each contract in this sample.¹⁵ This is the case because for our loan contracting outcome tests, we are only interested in the interplay between characteristics of the loan contract at the time of contract inception. After requiring borrower, loan, and auditor variables, our final sample for loan outcome tests consist of 5,279 individual loan contracts.^{16,17}

Table 1, Panel B presents the sample selection for our audit effort tests which are conducted at the firm-year level. Since loan agreements are typically multiyear contracts that affect auditor effort during each year the client is audited, we begin by first expanding each loan contract so that it is assigned to a firm in each fiscal year the contract is in force. This results in one observation for each fiscal year-end for the firm that lies between the start and end dates of each

¹⁵ A single loan deal or contract can contain multiple facilities (or tranches). For example, a loan contract/package in our sample could include both a seven year, \$750 million loan facility and a three year, \$250 million loan facility. These two facilities have different loan amounts, maturities, interest rates, etc. Since we analyze contract-level observations of auditor provisions and the unit of analysis for our loan tests is the contract, we retain only the largest facility to represent the contract in our sample.

¹⁶ Because our key variables in these tests are measured at the loan contract level (including dependent variables and ACPs), *not* at the contract-year level, the relative infrequency of new loan originations within firms over time precludes any analysis using a changes specification.

¹⁷ Requiring data to compute the covenant slack measure described later in this section reduces the sample by an additional 1,223 observations.

contract, assigning the (0/1) values of each ACP to each year of the contract duration. For clarity, only firm-years with at least one loan in force are included in this sample. Because some firms in our sample have more than one contract in force during a given year, we collapse the data to the unique firm-year level. In so doing, ACPs are summed within firm-year observations. These procedures result in a sample of 21,013 unique firm-year observations. Requiring data to compute the variables (and their changes) in our audit outcomes models reduces our sample to between 8,570 and 11,551 firm-year observations, depending on the model.

Model and Descriptive Statistics

Our first and second hypotheses relate to the loan contracting outcomes associated with ACPs. To test our predictions, we estimate versions of the following OLS regression on the sample of loan contracts described in Table 1, Panel A:

$$\text{Loan_Outcome} = f(\text{Auditor_Provision}, \text{Loan Characteristics}, \text{Borrower Characteristics}, \text{IndustryFE}, \text{YearFE}, \text{LenderFE}, \text{LoanPurposeFE}). \quad (1)$$

In this equation, *Loan_Outcome* stands for one of multiple dependent variables we use to test our hypotheses. H1 relates to loan amounts, loan maturities, and the number of lenders in the loan syndicate. Operationally, *LOANSIZE* is the log of the loan amount in millions of dollars, *MATURITY* is the log of the loan's maturity in months, and *NUM_LENDER* is the log of the number of lenders in the loan syndicate. H2 relates to the number of financial covenants and the amount of slack built into the financial covenants. Operationally, *NUMFINCOV* is the number of financial covenants in the loan contract. *COV_SLACK* is measured as the aggregate, loan-level covenant violation probability score as estimated by Demerjian and Owens (2016) multiplied by negative one. We summarize the calculation of *COV_SLACK* in Appendix B. In essence, the lower this probability score, the greater the covenant slack established at contract inception (i.e., the less likely a firm's performance measures will fall short of benchmarks stipulated in a loan agreement). We multiply the violation probability score by negative one so that *COV_SLACK* is increasing in covenant slack.

Auditor_Provision represents one of four separate test variables we analyze. Three of these variables (*DISCUSS*, *MGMT_LETTER*, and *CERTIFY_COV*) are indicator variables equal to 1 if the corresponding provision exists in the loan contract. Using these loan-level indicators, we construct a fourth summary variable of ACPs for each loan. This variable, named *CONTRACT_TOTAL*, is the contract-level sum of the three indicators *DISCUSS*, *MGMT_LETTER*, and *CERTIFY_COV*, and can take a value of 0, 1, 2, or 3 depending on whether none of the provisions, some of them, or all three of them are found in the loan contract.

In terms of *Loan Characteristics*, we include common control variables we expect are correlated with our dependent variables of loan outcomes. Specifically, we include *COLLATERAL* as a control since it reflects default risk, being used as a mechanism to decrease loss given default (e.g., Nini, Smith, and Sufi 2012). We include *PERFPRICE* because lenders negotiate performance pricing provisions to protect themselves against changes in borrower creditworthiness (e.g., Asquith, Beatty, and Weber 2005), which may also impact other major loan terms.¹⁸ We include *REVOLVER* because the flexibility of revolving lines of credit inherently increases risks for lenders, which can play into other loan term negotiations (e.g., Dennis, Nandy, and Sharpe 2000). Finally, we include *FIRST_LENDING* because loan terms have been shown to vary with relationship lending (e.g., Sufi 2007).

To control for firm-level determinants of loan outcomes, we include a set of *Borrower Characteristics*, measured as of the year-end prior to loan origination. Specifically, we include *FIRMSIZE*, *LEVERAGE*, *LOSS*, *SEGMENTS*, *FIRMAGE*, *RATING*, *ROA*, *ZSCORE*, volatility of cash flows (*CFO_VOLATILITY*), tangibility of assets (*TANGIBILITY*), and *MTB*. We also include *BIG4*, *AUDITOR_TENURE*, *AUDITOR_EXPERT*, and *DECEMBERYE* to control for the experience of the borrower's auditor and their ability to influence loan terms. Finally, we include industry, year, lender, and loan purpose fixed effects.¹⁹

Descriptive statistics for our final sample of loan contracts are reported in Table 2. On average, loans in our sample include 1.59 ACPs (*CONTRACT_TOTAL*). Eighty-two percent of contracts include the provision for direct communication between a borrower's auditor and lenders (*DISCUSS*). The provisions for management letters (*MGMT_LETTER*) and covenant certification (*CERTIFY_COV*) are less common (41 percent and 36 percent,

¹⁸ Performance pricing provisions link interest rate spreads on bank debt to a borrower's performance by reducing spreads if credit quality improves or increasing spreads if credit quality deteriorates. The variable *PERFPRICE* is an indicator for whether the loan includes this feature.

¹⁹ Industry is defined using two-digit SIC. Loan purpose is defined using the borrower's main purpose for obtaining the loan as recorded by DealScan. For example, common loan purpose descriptions include "general corporate purposes," "working capital," "debt repayment," "takeover," and "acquisition."

TABLE 2
Descriptive Statistics of Variables Used in Loan Contracting Outcome Tests (n = 5,279)

	<u>Mean</u>	<u>p25</u>	<u>Median</u>	<u>p75</u>	<u>Std. Dev.</u>
Auditor Provisions					
<i>CONTRACT_TOTAL</i> [<i>a+b+c</i>]	1.59	1.00	2.00	2.00	0.84
<i>DISCUSS</i> [<i>a</i>]	0.82	1.00	1.00	1.00	0.38
<i>MGMT_LETTER</i> [<i>b</i>]	0.41	0.00	0.00	1.00	0.49
<i>CERTIFY_COV</i> [<i>c</i>]	0.36	0.00	0.00	1.00	0.48
Loan Outcomes					
<i>NUMFINCOV</i>	2.06	1.00	2.00	3.00	1.30
<i>INTEREST</i>	190.50	100.00	175.00	250.00	130.58
<i>MATURITY</i> (in months)	47.50	36.00	60.00	60.00	20.05
<i>LOANSIZE</i> (in millions)	472.29	100.00	250.00	550.00	680.02
<i>COLLATERAL</i>	0.53	0.00	1.00	1.00	0.50
<i>PERFPRICE</i>	0.68	0.00	1.00	1.00	0.47
<i>REVOLVER</i>	0.70	0.00	1.00	1.00	0.46
<i>FIRST_LENDING</i>	0.62	0.00	1.00	1.00	0.48
<i>NUM_LENDER</i> (unlogged)	8.87	3.00	7.00	12.00	7.56
<i>COV_SLACK</i> (n = 4,056)	-0.33	-0.83	-0.07	-0.01	0.41
Borrower Characteristics					
<i>FIRMSIZE</i> (in millions)	5,071.03	410.92	1,257.48	3,940.72	11,281.86
<i>LEVERAGE</i>	0.24	0.09	0.21	0.34	0.19
<i>LOSS</i>	0.22	0.00	0.00	0.00	0.41
<i>SEGMENTS</i>	1.07	0.69	1.10	1.61	0.56
<i>FIRMGAGE</i>	2.59	1.97	2.69	3.45	1.11
<i>RATING</i>	0.56	0.00	1.00	1.00	0.50
<i>ROA</i>	0.13	0.09	0.13	0.17	0.09
<i>ZSCORE</i>	3.31	1.64	2.78	4.30	2.82
<i>CFO_VOLATILITY</i>	0.05	0.03	0.05	0.06	0.03
<i>TANGIBILITY</i>	0.32	0.12	0.25	0.49	0.24
<i>MTB</i>	1.40	0.80	1.11	1.66	0.96
<i>BIG4</i>	0.92	1.00	1.00	1.00	0.27
<i>AUDITOR_TENURE</i>	5.14	2.00	4.00	7.00	3.44
<i>AUDITOR_EXPERT</i>	0.56	0.00	1.00	1.00	0.50
<i>DECEMBERYE</i>	0.71	0.00	1.00	1.00	0.45

This table presents descriptive statistics for the sample of contracts used in loan tests. Loan characteristics are drawn from the loan agreements. Borrower and audit characteristics are measured in the year prior to entering into the loan agreement. All continuous variables have been Winsorized at 1 and 99 percent. See [Appendix B](#) for variable definitions.

respectively). In an untabulated trend analysis we note that the prevalence of *DISCUSS* over time varies between 70 and 90 percent. *CERTIFY_COV* exhibits a downward trend during our sample period, decreasing in prevalence to below 20 percent in recent years. The descriptive statistics with respect to *CERTIFY_COV* track closely those of [Baylis et al. \(2017\)](#), providing comfort in the accuracy of our identification of these ACPs.²⁰

On average, loans in our sample are for \$472 million with a maturity (*MATURITY*) of four years and an interest rate spread over LIBOR (*INTEREST*) of 190 basis points. Pearson correlations (untabulated) between ACP variables and various loan terms are mixed. We examine these associations more carefully in multivariate analyses. Consistent with other studies, we observe numerous significant correlations among loan-level variables (e.g., [Demerjian and Owens](#)

²⁰ Some loan agreements (an untabulated 452 contracts, or approximately 8 percent of our final sample) do not include any of the three ACPs we examine (i.e., *CONTRACT_TOTAL* equals 0). Other loan agreements (772 contracts, or 15 percent) include all three (i.e., *CONTRACT_TOTAL* equals 3). In 39 (38) percent of our sample, *CONTRACT_TOTAL* takes a value of 1 (2).

2016). We compute variance inflation factor (VIF) values on all variables in our loan outcome tests, noting none that exceed 6.4.

Tests of H1—Loan Amounts, Maturities, and Number of Lenders

Our first hypothesis addresses the relationship between ACPs and loan amounts and maturities. The results of estimating Equation (1) using *LOANSIZE* and *MATURITY* as dependent variables are presented in Table 3, Panels A and B,

TABLE 3
Tests of H1

Panel A: The Association between ACPs and Loan Size

Dep. Variable = <i>LOANSIZE</i> (Pred)	(1)		(2)		(3)		(4)	
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Auditor Provisions								
<i>CONTRACT_TOTAL</i> (+)	0.034***	2.44						
<i>DISCUSS</i> (+)			0.051*	1.67				
<i>MGMT_LETTER</i> (+)					0.015	0.62		
<i>CERTIFY_COV</i> (+)							0.049**	2.22
Loan Characteristics								
<i>NUMFINCOV</i>	0.001	0.07	0.002	0.21	0.003	0.26	0.001	0.08
<i>INTEREST</i>	-0.001***	-5.57	-0.001***	-5.48	-0.001***	-5.53	-0.001***	-5.54
<i>MATURITY</i>	0.308***	13.96	0.311***	14.09	0.312***	14.14	0.309***	14.07
<i>COLLATERAL</i>	0.039	1.46	0.043	1.60	0.041	1.52	0.042	1.58
<i>PERFPRICE</i>	0.056**	2.37	0.057**	2.39	0.058**	2.42	0.059**	2.47
<i>REVOLVER</i>	-0.031	-1.05	-0.032	-1.08	-0.033	-1.13	-0.032	-1.09
<i>FIRST_LENDING</i>	-0.056***	-2.89	-0.055***	-2.83	-0.055***	-2.83	-0.057***	-2.92
Borrower Characteristics								
<i>FIRMSIZE</i>	0.625***	49.19	0.623***	49.21	0.624***	48.37	0.623***	49.12
<i>LEVERAGE</i>	0.184**	2.22	0.190**	2.29	0.194**	2.33	0.181**	2.18
<i>LOSS</i>	-0.104***	-3.71	-0.103***	-3.66	-0.102***	-3.65	-0.104***	-3.72
<i>SEGMENTS</i>	-0.023	-1.16	-0.023	-1.14	-0.023	-1.14	-0.024	-1.21
<i>FIRMAGE</i>	-0.033***	-2.89	-0.033***	-2.93	-0.033***	-2.90	-0.033***	-2.94
<i>RATING</i>	0.089***	2.92	0.086***	2.83	0.088***	2.88	0.089***	2.91
<i>ROA</i>	0.977***	5.60	0.989	5.67	0.986***	5.63	0.981	5.65
<i>ZSCORE</i>	-0.013**	-1.96	-0.013*	-1.94	-0.013*	-1.93	-0.013*	-1.90
<i>CFO_VOLATILITY</i>	1.548***	3.74	1.553***	3.74	1.536***	3.71	1.522***	3.68
<i>TANGIBILITY</i>	-0.118	-1.50	-0.124	-1.57	-0.120	-1.53	-0.120	-1.52
<i>MTB</i>	0.054***	3.05	0.053***	2.96	0.054***	2.97	0.053***	3.00
<i>BIG4</i>	0.070	1.54	0.071	1.54	0.072	1.58	0.070	1.54
<i>AUDITOR_TENURE</i>	-0.002	-0.37	-0.002	-0.40	-0.002	-0.36	-0.002	-0.36
<i>AUDITOR_EXPERT</i>	-0.041*	-1.80	-0.042*	-1.85	-0.042*	-1.84	-0.042*	-1.82
<i>DECEMBERYE</i>	-0.018	-0.74	-0.018	-0.72	-0.017	-0.71	-0.019	-0.76
n (contracts)	5,279		5,279		5,279		5,279	
Adjusted R ²	0.80		0.80		0.80		0.80	
Fixed effects	Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose	

*, **, *** Denote statistical significance at 0.10, 0.05, and 0.01, respectively.

This panel reports results of regressing *LOANSIZE* on *CONTRACT_TOTAL*, *DISCUSS*, *MGMT_LETTER*, or *CERTIFY_COV*. The sample for these tests consists of one observation for every loan contract. Since loan characteristics sometimes vary by facility, and contracts can include multiple facilities, we select the largest facility for the sample. Intercepts, although included in the models, are repressed. All continuous variables have been Winsorized at 1 and 99. t-statistics are based on standard errors clustered by firm. These and all variables are described in detail in Appendix B.

(continued on next page)

TABLE 3 (continued)

Panel B: The Association between ACPs and Loan Maturity

Dep. Variable = <i>MATURITY</i> (Pred)	(1)		(2)		(3)		(4)	
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Auditor Provisions								
<i>CONTRACT_TOTAL</i> (+)	0.041***	3.88						
<i>DISCUSS</i> (+)			0.041*	1.67				
<i>MGMT_LETTER</i> (+)					0.028	1.62		
<i>CERTIFY_COV</i> (+)							0.065***	3.98
Loan Characteristics								
<i>NUMFINCOV</i>	0.028***	3.41	0.030***	3.64	0.031***	3.67	0.028***	3.40
<i>INTEREST</i>	0.001***	4.52	0.001***	4.67	0.001***	4.58	0.001***	4.58
<i>LOANSIZE</i>	0.202***	14.17	0.205***	14.31	0.205***	14.32	0.203***	14.25
<i>COLLATERAL</i>	0.130***	6.05	0.135***	6.25	0.131***	6.09	0.134***	6.26
<i>PERFPRICE</i>	0.006	0.26	0.007	0.31	0.007	0.31	0.008	0.40
<i>REVOLVER</i>	0.360***	11.91	0.360***	11.88	0.359***	11.85	0.359***	11.87
<i>FIRST_LENDING</i>	-0.006	-0.39	-0.005	-0.30	-0.005	-0.29	-0.007	-0.46
Borrower Characteristics								
<i>FIRMSIZE</i>	-0.145***	-10.68	-0.149***	-11.05	-0.148***	-10.83	-0.148***	-10.94
<i>LEVERAGE</i>	0.238***	3.72	0.247***	3.88	0.251***	3.94	0.233***	3.65
<i>LOSS</i>	-0.066***	-2.94	-0.064***	-2.87	-0.064***	-2.85	-0.066***	-2.95
<i>SEGMENTS</i>	0.007	0.42	0.007	0.45	0.007	0.45	0.005	0.34
<i>FIRMAGE</i>	-0.013	-1.50	-0.014	-1.54	-0.013	-1.48	-0.014	-1.59
<i>RATING</i>	0.058***	2.70	0.054**	2.54	0.056***	2.64	0.058***	2.70
<i>ROA</i>	0.169	1.37	0.183	1.49	0.177	1.44	0.174	1.42
<i>ZSCORE</i>	0.020***	3.81	0.020***	3.89	0.020***	3.84	0.021***	3.95
<i>CFO_VOLATILITY</i>	-1.485***	-4.71	-1.494***	-4.76	-1.506***	-4.79	-1.518***	-4.82
<i>TANGIBILITY</i>	-0.003	-0.06	-0.010	-0.19	-0.006	-0.10	-0.006	-0.11
<i>MTB</i>	-0.042***	-2.92	-0.044***	-3.07	-0.043***	-2.99	-0.043***	-3.03
<i>BIG4</i>	0.064**	2.05	0.064**	2.07	0.066**	2.12	0.064**	2.06
<i>AUDITOR_TENURE</i>	0.001	0.21	0.001	0.17	0.001	0.23	0.001	0.24
<i>AUDITOR_EXPERT</i>	0.009	0.53	0.008	0.45	0.008	0.47	0.009	0.49
<i>DECEMBER_YE</i>	0.002	0.11	0.003	0.15	0.003	0.15	0.002	0.08
n (contracts)	5,279		5,279		5,279		5,279	
Adjusted R ²	0.39		0.39		0.39		0.39	
Fixed effects	Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose	

*, **, *** Denote statistical significance at 0.10, 0.05, and 0.01, respectively.

This panel reports results of regressing *MATURITY* on *CONTRACT_TOTAL*, *DISCUSS*, *MGMT_LETTER*, or *CERTIFY_COV*. The sample for these tests consists of one observation for every loan contract. Since loan characteristics sometimes vary by facility, and contracts can include multiple facilities, we select the largest facility for the sample. Intercepts, although included in the models, are repressed. All continuous variables have been Winsorized at 1 and 99. t-statistics are based on standard errors clustered by firm.

These and all variables are described in detail in [Appendix B](#).

(continued on next page)

respectively. Supporting H1, the associations in these panels suggest that the inclusion of ACPs allows borrowers to obtain larger loans and loans with longer maturities.²¹ Consistent with our conjecture that direct communications and covenant compliance certifications constitute more meaningful communication between lenders and auditors than the sharing of management letters, coefficients on *DISCUSS* ($p < 0.10$) and *CERTIFY_COV* ($p < 0.05$) are greater in magnitude and in statistical significance than coefficients on *MGMT_LETTER*. In terms of economic significance, the

²¹ We note that in this and all subsequent tests, we draw inference based on associations. We do not provide evidence of causal relationships. We also note that the loan size results in [Table 3](#), Panel A drop when controlling for the number of lenders in the syndicate, suggesting that syndicate size significantly moderates the association between the presence of ACPs and loan size.

TABLE 3 (continued)

Panel C: The Association between ACPs and Syndicate Size

Dep. Variable = <i>NUM_LENDER</i>	(1)		(2)		(3)		(4)	
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Auditor Provisions								
<i>CONTRACT_TOTAL</i>	0.030***	2.41						
<i>DISCUSS</i>			0.068**	2.44				
<i>MGMT_LETTER</i>					0.001	0.05		
<i>CERTIFY_COV</i>							0.041**	1.97
Loan Characteristics								
<i>NUMFINCOV</i>	0.043***	4.44	0.044	4.55	0.045***	4.64	0.044***	4.45
<i>INTEREST</i>	0.000	-1.52	0.000	-1.40	0.000	-1.45	0.000	-1.48
<i>MATURITY</i>	0.233	10.37	0.234	10.49	0.236	10.53	0.233	10.35
<i>LOANSIZE</i>	0.451***	26.25	0.451***	26.30	0.452***	26.21	0.451***	26.18
<i>COLLATERAL</i>	-0.041*	-1.73	-0.038	-1.58	-0.038	-1.59	-0.038	-1.60
<i>PERFPRICE</i>	0.173***	7.59	0.173***	7.58	0.175***	7.67	0.175***	7.71
<i>REVOLVER</i>	0.042	1.49	0.042	1.49	0.040	1.42	0.041	1.45
<i>FIRST_LENDING</i>	-0.090***	-4.80	-0.089***	-4.75	-0.089***	-4.74	-0.090***	-4.82
Borrower Characteristics								
<i>FIRMSIZE</i>	0.031**	2.05	0.029*	1.93	0.028*	1.81	0.028*	1.88
<i>LEVERAGE</i>	-0.038	-0.53	-0.034	-0.48	-0.030	-0.43	-0.040	-0.56
<i>LOSS</i>	-0.067***	-2.60	-0.066***	-2.58	-0.065**	-2.53	-0.066***	-2.60
<i>SEGMENTS</i>	0.028	1.52	0.029	1.55	0.028	1.52	0.027	1.47
<i>FIRMAGE</i>	-0.006	-0.58	-0.006	-0.61	-0.006	-0.61	-0.007	-0.64
<i>RATING</i>	0.103***	3.82	0.100***	3.71	0.101***	3.75	0.103***	3.82
<i>ROA</i>	0.307**	2.25	0.317**	2.32	0.316**	2.31	0.311**	2.28
<i>ZSCORE</i>	-0.003	-0.49	-0.003	-0.48	-0.003	-0.45	-0.002	-0.43
<i>CFO_VOLATILITY</i>	-0.679**	-2.09	-0.665**	-2.05	-0.695**	-2.15	-0.702**	-2.17
<i>TANGIBILITY</i>	-0.052	-0.79	-0.058	-0.89	-0.056	-0.86	-0.054	-0.83
<i>MTB</i>	-0.023	-1.52	-0.024	-1.61	-0.024	-1.61	-0.024	-1.59
<i>BIG4</i>	0.122***	3.08	0.122***	3.06	0.123***	3.10	0.122***	3.07
<i>AUDITOR_TENURE</i>	-0.001	-0.17	-0.001	-0.23	-0.001	-0.17	-0.001	-0.16
<i>AUDITOR_EXPERT</i>	-0.016	-0.81	-0.017	-0.85	-0.017	-0.86	-0.016	-0.83
<i>DECEMBER_YE</i>	0.012	0.57	0.013	0.60	0.013	0.60	0.012	0.56
n (contracts)	5,279		5,279		5,279		5,279	
Adjusted R ²	0.66		0.66		0.66		0.66	
Fixed effects	Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose	

*, **, *** Denote statistical significance at 0.10, 0.05, and 0.01, respectively.

This panel reports results of regressing *NUM_LENDER* on *CONTRACT_TOTAL*, *DISCUSS*, *MGMT_LETTER*, or *CERTIFY_COV*. The sample for these tests consists of one observation for every loan contract. Since loan characteristics sometimes vary by facility, and contracts can include multiple facilities, we select the largest facility for the sample. Intercepts, although included in the models, are repressed. All continuous variables have been Winsorized at 1 and 99. t-statistics are based on standard errors clustered by firm.

These and all variables are described in detail in [Appendix B](#).

DISCUSS and *CERTIFY_COV* provisions are each associated with an approximate 5 percent increase in loan amount on average. The presence of these two ACPs is associated with an approximate 4 percent and 6 percent increase in loan maturity, respectively.

Our first hypothesis also addresses the relation between ACPs and the size of the lending syndicate. In [Table 3](#), Panel C, we present the results of an analysis using *NUM_LENDER* as the dependent variable. Again, coefficients on *DISCUSS* and *CERTIFY_COV* are positive and significant ($p < 0.05$), whereas the coefficient on *MGMT_LETTER* is insignificant. These results suggest that direct discussion with auditors and covenant compliance certification reduce

information asymmetry and facilitate lenders' monitoring of the borrower, which lead to more lender participation and more diffuse loan syndicates. The existence of the *DISCUSS* (*CERTIFY_COV*) provisions is associated with a 7 percent (4 percent) increase in the number of lenders in the syndicate.

Tests of H2—Number of Financial Covenants and Covenant Slack

Our second hypothesis relates ACPs to the loan's financial covenants. In Table 4, Panel A, we present the results of analysis using *NUMFINCOV* as the dependent variable. Again, coefficients on *DISCUSS* and *CERTIFY_COV* are

(Pred)	(1)		(2)		(3)		(4)	
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Auditor Provisions								
<i>CONTRACT_TOTAL</i> (+)	0.108***	4.68						
<i>DISCUSS</i> (+)			0.103**	2.13				
<i>MGMT_LETTER</i> (+)					0.052	1.25		
<i>CERTIFY_COV</i> (+)							0.189***	5.01
Loan Characteristics								
<i>INTEREST</i>	0.001***	3.94	0.001***	4.15	0.001***	4.03	0.001***	4.01
<i>MATURITY</i>	0.119***	3.46	0.128***	3.70	0.129***	3.73	0.118***	3.45
<i>LOANSIZE</i>	0.002	0.07	0.006	0.21	0.007	0.26	0.002	0.08
<i>COLLATERAL</i>	0.468***	10.49	0.482***	10.82	0.476***	10.65	0.479***	10.76
<i>PERFPRICE</i>	0.683***	17.25	0.689***	17.45	0.691***	17.51	0.690***	17.44
<i>REVOLVER</i>	-0.067	-1.48	-0.071	-1.57	-0.074	-1.63	-0.069	-1.52
<i>FIRST_LENDING</i>	-0.114***	-3.54	-0.111***	-3.45	-0.111***	-3.45	-0.117***	-3.64
Borrower Characteristics								
<i>FIRMSIZE</i>	-0.130***	-4.92	-0.140***	-5.34	-0.139***	-5.24	-0.138***	-5.22
<i>LEVERAGE</i>	0.133	0.97	0.155	1.13	0.162	1.18	0.114	0.83
<i>LOSS</i>	-0.023	-0.45	-0.018	-0.36	-0.017	-0.33	-0.024	-0.47
<i>SEGMENTS</i>	-0.014	-0.45	-0.014	-0.42	-0.014	-0.42	-0.018	-0.58
<i>FIRMAGE</i>	-0.001	-0.06	-0.002	-0.12	-0.001	-0.07	-0.003	-0.18
<i>RATING</i>	-0.077	-1.53	-0.086*	-1.71	-0.081	-1.62	-0.076	-1.51
<i>ROA</i>	0.839***	3.15	0.879***	3.27	0.868**	3.22	0.848***	3.18
<i>ZSCORE</i>	-0.008	-0.71	-0.007	-0.65	-0.007	-0.67	-0.006	-0.58
<i>CFO_VOLATILITY</i>	-1.907***	-2.79	-1.931***	-2.78	-1.965***	-2.82	-1.994***	-2.91
<i>TANGIBILITY</i>	-0.277**	-2.26	-0.297**	-2.39	-0.287**	-2.31	-0.283**	-2.30
<i>MTB</i>	-0.040	-1.48	-0.045*	-1.66	-0.043	-1.59	-0.043	-1.61
<i>BIG4</i>	-0.028	-0.34	-0.026	-0.32	-0.023	-0.28	-0.029	-0.35
<i>AUDITOR_TENURE</i>	0.009	1.06	0.008	1.02	0.009	1.08	0.009	1.09
<i>AUDITOR_EXPERT</i>	0.040	1.11	0.037	1.01	0.037	1.03	0.039	1.08
<i>DECEMBER_YE</i>	-0.076*	-1.78	-0.074*	-1.73	-0.074*	-1.72	-0.078*	-1.82
n (contracts)	5,279		5,279		5,279		5,279	
Adjusted R ²	0.42		0.42		0.42		0.42	
Fixed effects	Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose	

*, **, *** Denote statistical significance at 0.10, 0.05, and 0.01, respectively.

This panel reports results of regressing *NUMFINCOV* on *CONTRACT_TOTAL*, *DISCUSS*, *MGMT_LETTER*, or *CERTIFY_COV*. The sample for these tests consists of one observation for every loan contract. Since loan characteristics sometimes vary by facility, and contracts can include multiple facilities, we select the largest facility for the sample. Intercepts, although included in the models, are repressed. All continuous variables have been Winsorized at 1 and 99. t-statistics are based on standard errors clustered by firm.

These and all variables are described in detail in Appendix B.

(continued on next page)

TABLE 4 (continued)

Panel B: The Association between ACPs and Covenant Slack

Dep. Variable = <i>COV_SLACK</i>	(1)		(2)		(3)		(4)	
(Pred)	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Auditor Provisions								
<i>CONTRACT_TOTAL</i> (+)	0.016**	1.82						
<i>DISCUSS</i> (+)			0.015	0.80				
<i>MGMT_LETTER</i> (+)					0.005	0.33		
<i>CERTIFY_COV</i> (+)							0.030**	1.98
Loan Characteristics								
<i>NUMFINCOV</i>	-0.074***	-9.06	-0.074***	-8.95	-0.073***	-8.92	-0.074***	-9.06
<i>INTEREST</i>	0.000***	-5.88	0.000***	-5.84	0.000***	-5.82	0.000***	-5.87
<i>MATURITY</i>	0.012	1.09	0.014	1.19	0.014	1.19	0.012	1.07
<i>LOAN_SIZE</i>	0.012	1.17	0.013	1.22	0.013	1.26	0.012	1.17
<i>COLLATERAL</i>	-0.065***	-3.75	-0.062***	-3.61	-0.063***	-3.63	-0.063***	-3.66
<i>PERFPRICE</i>	0.000	-0.03	0.001	0.05	0.001	0.06	0.001	0.07
<i>REVOLVER</i>	-0.042***	-2.78	-0.043***	-2.83	-0.043***	-2.85	-0.043***	-2.79
<i>FIRST_LENDING</i>	-0.013	-1.07	-0.012	-1.00	-0.012	-1.00	-0.013	-1.10
Borrower Characteristics								
<i>FIRMSIZE</i>	0.014	1.32	0.012	1.19	0.012	1.18	0.013	1.24
<i>LEVERAGE</i>	-0.273***	-5.60	-0.270***	-5.56	-0.270***	-5.56	-0.276***	-5.66
<i>LOSS</i>	-0.096***	-4.91	-0.095***	-4.86	-0.095***	-4.85	-0.096***	-4.93
<i>SEGMENTS</i>	0.021	1.59	0.021	1.61	0.021	1.60	0.020	1.54
<i>FIRMAGE</i>	-0.025***	-3.50	-0.025***	-3.51	-0.025***	-3.50	-0.025***	-3.55
<i>RATING</i>	0.031	1.61	0.030	1.56	0.031	1.58	0.031	1.62
<i>ROA</i>	1.120***	10.37	1.122***	10.41	1.119***	10.38	1.119***	10.36
<i>ZSCORE</i>	0.013***	2.88	0.013**	2.88	0.013***	2.89	0.013***	2.94
<i>CFO_VOLATILITY</i>	-0.330	-1.20	-0.328	-1.19	-0.331	-1.20	-0.345	-1.25
<i>TANGIBILITY</i>	0.034	0.74	0.032	0.69	0.033	0.72	0.032	0.69
<i>MTB</i>	-0.016	-1.45	-0.017	-1.47	-0.017	-1.46	-0.017	-1.48
<i>BIG4</i>	0.012	0.41	0.012	0.42	0.013	0.44	0.011	0.39
<i>AUDITOR_TENURE</i>	-0.002	-0.61	-0.002	-0.63	-0.002	-0.60	-0.002	-0.58
<i>AUDITOR_EXPERT</i>	0.007	0.54	0.007	0.53	0.007	0.54	0.008	0.55
<i>DECEMBER_YE</i>	-0.012	-0.71	-0.012	-0.70	-0.011	-0.69	-0.012	-0.70
n (contracts)	4,056		4,056		4,056		4,056	
Adjusted R ²	0.38		0.38		0.38		0.38	
Fixed effects	Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose	

** , *** Denote statistical significance at 0.05 and 0.01, respectively.

This panel reports results of regressing *COV_SLACK* on *CONTRACT_TOTAL*, *DISCUSS*, *MGMT_LETTER*, or *CERTIFY_COV*. The sample for these tests consists of one observation for every loan contract. Since loan characteristics sometimes vary by facility, and contracts can include multiple facilities, we select the largest facility for the sample. Intercepts, although included in the models, are repressed. All continuous variables have been Winsorized at 1 and 99. t-statistics are based on standard errors clustered by firm.

These and all variables are described in detail in [Appendix B](#).

positive and significant ($p < 0.05$), whereas the coefficient on *MGMT_LETTER* is insignificant. The presence of the *DISCUSS* (*CERTIFY_COV*) provision is associated with a 5 percent (9 percent) increase in the number of financial covenants, relative to the sample mean of *NUMFINCOV*. Since covenant compliance certification provisions relate so directly to the loan's financial covenants, it makes sense that the coefficient on *CERTIFY_COV* is significantly greater than coefficients on each of the other two ACP variables (confirmed in untabulated simultaneous regression).

In [Table 4](#), Panel B, we present results of analysis using *COV_SLACK* as the dependent variable. Again, consistent with covenant compliance certification provisions relating most directly to financial covenants, we find that only *CERTIFY_COV* is significantly positively associated with the amount of slack built into financial covenants ($p < 0.05$).

We interpret this result as evidence that when loan agreements include provisions for no-default certification, borrowers can bargain for financial covenants with greater slack, which decreases the *ex ante* probability of covenant violation. The presence of the *CERTIFY_COV* provision is associated with an approximate 9 percent reduction in the likelihood of covenant violation relative to the sample mean of *COV_SLACK*.

The associations we observe between the presence of ACPs and loan attributes may arise, in part, because the underlying credit risk of borrowers drives multiple outcomes of loan contract negotiations. To investigate the impact of credit risk on our findings, we run the tests in Tables 3 and 4 with the addition of the variable *POOR_RATE* (an indicator variable for firms with S&P credit ratings lower than B-) and its interaction with *CONTRACT_TOTAL*. If underlying credit risk drives our results, we expect a positive coefficient on *CONTRACT_TOTAL * POOR_RATE*. We report the results of this analysis in Table 5. In no specification is the interaction term significant at conventional levels, suggesting that the positive associations between ACPs and the loan outcomes we examine are statistically no different in the sample where credit risk is relatively high. Based on this evidence, we infer that underlying credit risk is unlikely to be the main driver of our overall results.²²

Tests of H3a and H3b—Auditor Effort

To examine H3a and H3b, the relationship between the presence of ACPs and audit effort, and the interaction with client litigation risk, we estimate regressions using the sample of firm-year observations described in Table 1, Panel B and the following general model:

$$\text{Audit_Effort}\Delta = f(\text{Auditor_Provision}\Delta, \text{Control_Variables}, \text{IndustryFE}, \text{YearFE}). \quad (2)$$

We use two variables to proxy for audit effort (represented by *Audit_Effort* Δ). These are *AUDITFEESA* Δ (the change in the natural log of audit fees for a firm from year $t-1$ to year t), and *AUDITLAGA* Δ (the year-to-year change in the number of days between fiscal year end and the audit report date).²³ Although audit fees are often used as a measure of audit effort in the literature, they can also reflect a litigation risk premium charged by the auditor (DeFond and Zhang 2014). Using audit lags as an additional proxy helps us allay this concern as it is a direct measure of how long the audit took to complete. However, this variable also has shortcomings in that it may reflect the overall complexity of an audit client. Our use of two variables, both of which measure different aspects of audit effort, helps increase confidence that our results do indeed reflect audit effort.

Auditor_Provision Δ represents the year-to-year change of one of the four separate test variables we analyze. Three of these ACP variables (*DISCUSS_SUM*, *MGMT_LETTER_SUM*, and *CERTIFY_COV_SUM*) are computed as the sum of the corresponding indicator variable across all contracts in force for a given firm in a given year. For example, if one firm has two active loan contracts in year t , both of which include the ACP labeled *DISCUSS*, then *DISCUSS_SUM* takes a value of 2 for that firm-year observation.²⁴ The fourth ACP variable (*FIRMYEAR_TOTAL*) is the sum of *CERTIFY_COV_SUM*, *MGMT_LETTER_SUM*, and *DISCUSS_SUM* for each firm in a year.

In Table 6, we present descriptive statistics (using “levels” values) for all variables included in our audit effort and audit quality tests.²⁵ Table 7, Panel A reports the results of baseline audit effort regressions that investigate H3a, following Equation (2). In columns (1) and (2), the coefficients on *FIRMYEAR_TOTAL* Δ are positive and significant ($p < 0.01$) indicating a positive association between ACPs and auditor effort.

At the bottom of Table 7, Panel A, we report the results of replacing the summary ACP variable *FIRMYEAR_TOTAL* Δ with the ACP variables individually. In our audit fees test we observe positive and significant coefficients on *DISCUSS_SUM* Δ and *CERTIFY_COV_SUM* Δ ($p < 0.01$). *MGMT_LETTER_SUM* Δ is also positive

²² To further mitigate the issue that the underlying credit risk drives our results, we re-run our loan attribute tests on both propensity-score matched (PSM) samples and entropy balanced samples, using the individual ACP indicator variables *DISCUSS*, *MGMT_LETTER*, and *CERTIFY_COV* as the treatment variables for the matching procedures. Overall, our results (untabulated) are robust and qualitatively similar to our main results in Tables 3 and 4.

²³ To help allay endogeneity concerns associated with audit effort regressions using levels, we focus on multivariate changes models wherein variables in Equation (2) enter as first differences computed by subtracting each variable at time $t-1$ from its time t observation.

²⁴ We use the sum of the corresponding indicator variable because it is plausible that the auditor’s third-party litigation risk is increasing in the number of ACPs across different loan agreements.

²⁵ In audit effort tests, control variables consist of *FIRMSIZE* Δ , *ROA* Δ , *LEVERAGE* Δ , *LOSS* Δ , *CURRENTASSETS* Δ , *QUICKRATIO* Δ , *DECEMBER* Δ , *SEGMENTS* Δ , *PCTFOREIGN* Δ , *GOINGCONCERN* Δ , *FIRMAGE* Δ , *REPORTLAG* Δ , *RATING* Δ , *BIG4* Δ , *ACCEL_FILER* Δ , *ICW* Δ , and *ABNORMAL_RETURN* Δ . We also include the levels variables *FIRMSIZE*, *ROA*, and *LEVERAGE*, as well as year fixed effects and industry fixed effects (based on two-digit SIC). In the audit quality tests presented later in the study, we include all the previously mentioned control variables plus the following variables that commonly appear in audit quality models (e.g., Francis and Michas 2013): *MTB* Δ , *TOT_ACCR* Δ , *RECEIVABLES* Δ , *INVENTORY* Δ , *EARNINGS* Δ , *EMPLOYEE* Δ , *AUDIT_FEES* Δ , *OFFICESIZE* Δ , *AUDITOR* Δ , and *CLIENT_REL_SIZE* Δ . All variables are defined in Appendix B.

TABLE 5
The Influence of Credit Quality on the Association between ACPs and Loan Attributes

Dep. Variable =	(1)		(2)		(3)		(4)		(5)	
	Loan size		Maturity		Num_LENDER		Numfincov		Cov_SLACK	
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
CONTRACT_TOTAL	0.0322**	2.33	0.0384***	3.62	0.0282**	2.24	0.1039***	4.51	0.0154*	1.75
POOR_RATE	-0.0229	-0.13	-0.3507*	-1.68	-0.0894	-0.53	-0.7098**	-2.14	-0.0992	-0.68
CONTRACT_TOTAL * POOR_RATE	0.0222	0.24	0.1347	1.43	0.0217	0.23	0.2885	1.58	0.0104	0.15
Controls	Yes		Yes		Yes		Yes		Yes	
n (contracts)	5,279		5,279		5,279		5,279		4,056	
Adjusted R ²	0.80		0.39		0.66		0.42		0.38	
Fixed effects	Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose		Industry, year, lender, loan purpose	

***, ***, ** Denote statistical significance at 0.10, 0.05, and 0.01, respectively. This table reports results of regressing loan attributes on CONTRACT_TOTAL, POOR_RATE, CONTRACT_TOTAL * POOR_RATE, and controls. CONTRACT_TOTAL is the count of ACPs in the contract. POOR_RATE is an indicator variable equal to 1 for borrowers with credit ratings lower than B-. The sample for these tests consists of one observation for every loan contract. Since loan characteristics sometimes vary by facility, and contracts can include multiple facilities, we select the largest facility for the sample. Intercepts, although included in the models, are repressed. All continuous variables have been Winsorized at 1 and 99. t-statistics are based on standard errors clustered by firm. These and all variables are described in detail in Appendix B.

TABLE 6
Descriptive Statistics of Variables Used in Audit Effort and Audit Quality Tests

	n	Mean	p25	Median	p75	Std. Dev.
<i>FIRMYEAR_TOTAL</i> [<i>d+e+f</i>]	11,551	2.21	1.00	2.00	3.00	1.64
<i>DISCUSS_SUM</i> [<i>d</i>]	11,551	1.22	1.00	1.00	2.00	0.82
<i>MGMT_LETTER_SUM</i> [<i>e</i>]	11,551	0.53	0.00	0.00	1.00	0.76
<i>CERTIFY_COV_SUM</i> [<i>f</i>]	11,551	0.46	0.00	0.00	1.00	0.75
<i>AUDIT_FEES</i> (millions)	11,551	3.43	1.22	2.12	4.10	3.79
<i>AUDITLAG</i>	11,548	57.21	53.00	58.00	61.00	1.21
<i>DISC_ACCR</i> (unsigned)	11,298	0.00	-0.04	0.00	0.03	0.07
<i>RESTATEMENT</i>	11,551	0.11	0.00	0.00	0.00	0.31
<i>FIRMSIZE</i> (millions)	11,551	7,043.15	878.59	2,218.53	6,307.92	13,464.73
<i>ROA</i>	11,551	0.09	0.05	0.08	0.12	0.08
<i>LEVERAGE</i>	11,551	0.28	0.14	0.25	0.38	0.20
<i>LOSS</i>	11,551	0.19	0.00	0.00	0.00	0.39
<i>CURRENTASSETS</i>	11,551	0.37	0.19	0.36	0.51	0.20
<i>QUICKRATIO</i>	11,551	1.43	0.85	1.22	1.73	0.90
<i>DECEMBERYE</i>	11,551	0.74	0.00	1.00	1.00	0.44
<i>SEGMENTS</i>	11,551	2.38	1.00	2.00	4.00	1.78
<i>PCTFOREIGN</i>	11,551	0.21	0.00	0.08	0.39	0.26
<i>GOING_CONCERN</i>	11,551	0.01	0.00	0.00	0.00	0.08
<i>FIRMAGE</i>	11,551	2.93	2.41	2.97	3.58	0.84
<i>REPORTLAG</i>	11,551	45.49	34.00	45.00	56.00	14.72
<i>RATING</i>	11,551	0.58	0.00	1.00	1.00	0.49
<i>BIG4</i>	11,551	0.92	1.00	1.00	1.00	0.27
<i>ACCEL_FILER</i>	11,551	0.74	0.00	1.00	1.00	0.44
<i>ICW</i>	11,551	0.04	0.00	0.00	0.00	0.21
<i>ABRET</i>	10,334	0.03	-0.20	-0.01	0.20	0.38
<i>MTB</i>	11,545	1.46	0.86	1.18	1.73	0.93
<i>TOT_ACCR</i>	10,248	0.02	-0.03	0.02	0.06	0.11
<i>RECEIVABLES</i> (millions)	11,542	713.52	92.03	232.93	613.61	1,557.43
<i>INVENTORY</i> (millions)	11,551	445.79	9.93	122.63	432.52	894.34
<i>EARNINGS</i> (millions)	11,551	294.46	12.88	85.98	300.84	737.26
<i>EMPLOYEES</i> (thousands)	11,489	17.04	2.25	5.97	16.22	30.51
<i>OFFICESIZE</i>	11,551	51.48	11.00	25.00	57.00	66.41
<i>AUDITORA</i>	11,551	0.03	0.00	0.00	0.00	0.17
<i>CLIENT_REL_SIZE</i>	11,547	0.11	0.02	0.05	0.12	0.17
<i>HIGH_FIN_COV</i>	11,551	0.22	0.00	0.00	0.00	0.41

This table presents descriptive statistics for variables used in audit outcomes tests. This is a firm-year sample. Since some firms have multiple loan contracts in force in a given year, loan characteristics are collapsed to a firm-year level using a sum (whereby *DISCUSS_SUM*, *MGMT_LETTER_SUM*, and *CERTIFY_COV_SUM* are summed across all loans in force for that firm in that year to create *DISCUSS_SUM*, *MGMT_LETTER_SUM*, and *CERTIFY_COV_SUM*). These three variables are then summed within each firm-year to create *FIRMYEAR_TOTAL*. All continuous variables have been Winsorized at 1 and 99 percent.

See [Appendix B](#) for variable definitions.

but much weaker in significance ($p = 0.10$). In our audit lag test (column (2)), the coefficient on *FIRMYEAR_TOTAL* Δ is positive and significant ($p < 0.01$). This overall result appears to be driven by *DISCUSS_SUM* Δ ($p < 0.05$) and *CERTIFY_COV_SUM* Δ ($p < 0.05$), whereas *MGMT_LETTER_SUM* Δ is insignificant.²⁶ The weaker results for

²⁶ We also conduct audit fees tests using a “levels” specification to quantify an economic effect more intuitively. In untabulated regressions using the levels of each control variable described in [Equation \(2\)](#), the coefficient on *FIRMYEAR_TOTAL* is positive and significant ($p < 0.05$). In terms of economic significance, an increase from the 25th to the 75th percentile of *FIRMYEAR_TOTAL* is associated with a 1.8 percent increase in audit fees. This reflects an average increase in the dollar amount of audit fees of approximately \$61,000 per year or \$243,000 (\$307,000) over the life of a loan with an average (median) maturity.

TABLE 7
Tests of H3a and H3b

Panel A: Baseline Audit Effort Tests

Dependent Variable:	(1) <i>Audit_FEESA</i>		(2) <i>Auditlag</i>	
	Coeff.	t-stat	Coeff.	t-stat
<i>FIRMYEAR_TOTAL</i> Δ	0.010***	2.82	0.003***	2.37
<i>FIRMSIZE</i> Δ	0.338***	15.84	0.003	0.47
<i>ROA</i> Δ	-0.169**	-2.06	-0.005	-0.14
<i>LEVERAGE</i> Δ	0.123**	2.32	0.040*	1.93
<i>LOSS</i> Δ	0.028***	2.79	0.012***	3.28
<i>CURRENTASSETS</i> Δ	0.076	0.78	-0.028	-1.07
<i>QUICKRATIO</i> Δ	-0.028***	-2.85	-0.001	-0.33
<i>DECEMBER</i> YEAΔ	0.005	0.07	-0.195*	-1.93
<i>SEGMENTS</i> Δ	0.008	0.56	-0.000	-0.01
<i>PCTFOREIGN</i> Δ	0.114**	2.04	0.002	0.16
<i>GOING_CONCERN</i> Δ	0.073	1.80	0.160***	4.15
<i>FIRMAGE</i> Δ	-0.078**	-2.50	-0.007	-0.62
<i>REPORTLAG</i> Δ	0.004***	3.87	0.006***	14.15
<i>RATING</i> Δ	0.037*	1.91	-0.001	-0.20
<i>BIG4</i> Δ	0.255***	2.91	0.065***	3.50
<i>ACCEL_FILER</i> Δ	0.012	0.71	-0.012*	-1.75
<i>ICWA</i> Δ	0.026	1.30	0.078***	7.02
<i>FIRMSIZE</i>	-0.002	-1.18	-0.002***	-3.08
<i>ROA</i>	-0.019	-0.55	-0.006	-0.37
<i>LEVERAGE</i>	0.000	0.03	-0.006	-0.86
<i>ABNORMAL_RETURN</i> Δ			0.001	0.22
n (Firm-Years)	11,551		10,016	
Fixed effects	Industry, Year		Industry, Year	
Adjusted R ²	0.09		0.22	
Summary of Results Using Individual ACP Variables Instead of <i>FIRMYEAR_TOTAL</i> Δ:				
<i>DISCUSS_SUM</i> Δ	0.018***	2.72	0.005**	2.16
<i>MGMT_LETTER_SUM</i> Δ	0.020*	1.66	0.006	1.35
<i>CERTIFY_COV_SUM</i> Δ	0.025***	2.62	0.009**	2.52

*, **, *** Denote statistical significance at 0.10, 0.05, and 0.01, respectively.

This panel reports results of regressing *AUDIT_FEESA*Δ or *AUDITLAG*Δ on changes in loan and borrower characteristics. Changes are computed as (observation_{*t*} - observation_{*t-1*}). The sample for these tests consists of one observation for every firm-year. Intercepts, although included in the models, are repressed. Continuous variables have been Winsorized at 1 and 99 percent. t-statistics are based on standard errors clustered by firm. All variables are described in detail in [Appendix B](#).

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*MGMT_LETTER_SUM*Δ are consistent with our expectation and suggest that, on average, lender access to copies of written communications between auditors and borrowers does less to increase the litigation risk for the auditors (and associated audit effort).

To explore H3b, that litigation risk due to ACPs interacts with other client-specific risk characteristics, we next conduct cross-sectional analyses examining the moderating impact of (1) borrower distress and (2) the number of financial covenants. To first test this expectation we supplement [Equation \(2\)](#) with the interaction between the variables *FIRMYEAR_TOTAL*Δ and *GOING_CONCERN*. Our use of going concern opinions as a proxy for auditor litigation concerns is consistent with [Kaplan and Williams \(2013\)](#). Second, the third-party litigation risk *vis-à-vis* lenders that auditors perceive may also increase with the number of financial covenants in the loan agreements of their clients. The inclusion of more financial covenants implies greater reliance by third-party lenders on accounting information that has been

TABLE 7 (continued)

Panel B: Audit Fees Tests, Elevated Third-Party Liability

Dep. Var. = *AUDIT_FEESA*

Cross-Sectional Variable =	(Pred)	(1)		(2)	
		<i>GOING_CONCERN</i>		<i>HIGH_FIN_COV</i>	
		Coeff.	t-stat	Coeff.	t-stat
<i>FIRMYEAR_TOTALΔ</i> [<i>A</i>] α_0		0.010***	2.60	0.004	1.01
Cross-sectional variable [<i>B</i>] α_1		0.016	0.28	0.010	1.50
Interaction [<i>A</i> * <i>B</i>] α_2	(+)	0.148***	2.90	0.025***	2.82
Sum of coefficients: <i>FIRMYEAR_TOTALΔ</i> + Interaction					
[F-stat in brackets] $\alpha_0 + \alpha_2$	(+)	0.158***	[9.54]	0.029***	[13.53]
Controls		Yes		Yes	
n (# of firm-years)		11,551		11,551	
Fixed effects		Industry, year		Industry, year	
Adjusted R ²		0.09		0.09	

Summary of Results Using Individual ACP Variables Instead of *FIRMYEAR_TOTALΔ*:

	(Pred)	Coeff.	t-stat	Coeff.	t-stat
<i>DISCUSS_SUMΔ</i> * <i>GOING_CONCERN</i>	(+)	0.221**	1.94		
<i>MGMT_LETTER_SUMΔ</i> * <i>GOING_CONCERN</i>	(+)	0.404***	3.23		
<i>CERTIFY_COV_SUMΔ</i> * <i>GOING_CONCERN</i>	(+)	0.290**	1.81		
<i>DISCUSS_SUMΔ</i> * <i>HIGH_FIN_COV</i>	(+)			0.048***	2.75
<i>MGMT_LETTER_SUMΔ</i> * <i>HIGH_FIN_COV</i>	(+)			0.065***	2.68
<i>CERTIFY_COV_SUMΔ</i> * <i>HIGH_FIN_COV</i>	(+)			0.058***	2.15

, * Denote statistical significance at 0.05 and 0.01, respectively (using one-tailed hypothesis tests for auditor provisions with directional predictions).

This panel reports results of regressing *AUDIT_FEESA* on changes in loan and borrower characteristics. Except for the cross-sectional variables, all variables enter as changes ($\text{observation}_t - \text{observation}_{t-1}$). In column (1), the cross-sectional variable is *GOING_CONCERN*, which is equal to 1 if the firm receives a going concern opinion in a year. In column (2), the cross-sectional variable is *HIGH_FIN_COV*, which is equal to 1 if the number of financial covenants in loan contracts for a firm in a year is above the sample median. Control variables and intercepts, although included in the models following Panel A, are repressed. The sample for these tests consists of one observation for every firm-year. Continuous variables have been Winsorized at 1 and 99 percent. t-statistics are based on standard errors clustered by firm.

All variables are described in detail in [Appendix B](#).

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audited and represents a greater potential for auditor liability in the event of lender losses. The variable *HIGH_FIN_COV* is an indicator variable equal to 1 for observations that are above the median number of financial covenants (after averaging the number of financial covenants across loans in force for a borrower in a year).

We report results of these cross-sectional analyses beginning in [Table 7](#), Panel B with audit fees as the dependent variable. In column (1), when *GOING_CONCERN* equals 0, the coefficient on *FIRMYEAR_TOTALΔ* is 0.010 ($p < 0.01$). By comparison, the total effect of *FIRMYEAR_TOTALΔ* when the auditor has issued a going concern opinion ($\alpha_0 + \alpha_2$) is much larger in magnitude (0.158, $p < 0.01$). Further, the incremental impact (α_2 alone) is positive and significant ($\alpha_2 = 0.148$, $p < 0.01$). Consequently, and consistent with our expectation, the response in audit fees to changes in ACPs is incrementally stronger when the auditor issues a going concern opinion compared to when they do not. In the bottom half of [Table 7](#), Panel B, we document that these effects are consistent across all three individual types of ACPs (the interaction terms are positive and significant at $p < 0.05$). These results provide evidence that when auditors are at even higher risk of litigation due to the combination of ACPs and client financial risk, they undertake greater audit effort to mitigate litigation risk. In column (2), when *HIGH_FIN_COV* equals 0, the coefficient on *FIRMYEAR_TOTALΔ* is not significantly different from zero. By comparison, the total effect of *FIRMYEAR_TOTALΔ* ($\alpha_0 + \alpha_2$) is much larger in magnitude and statistically significant (0.029, $p < 0.01$). Further, the incremental impact (α_2 alone) is positive and significant ($\alpha_2 = 0.025$, $p < 0.01$). Again, these results are consistent across all three ACP types. Thus, the response in audit fees to changes in ACPs is significantly higher when the client's loans include a high number of financial covenants compared to a low number. [Table 7](#), Panel C presents our tests using audit lags as a proxy in place of audit fees used in Panel B. Results here are almost identical with those in Panel B. Overall, these tests provide evidence in support of H3b.

TABLE 7 (continued)

Panel C: Audit Report Lag Tests, Elevated Third-Party Liability

Dep. Var. = *AUDITLAG* Δ

Cross-Sectional Variable =

		(1)		(2)	
		<i>GOING_CONCERN</i>		<i>HIGH_FIN_COV</i>	
	(Pred)	Coeff.	t-stat	Coeff.	t-stat
<i>FIRMYEAR_TOTAL</i> Δ [<i>A</i>] β_0		0.003**	2.22	0.002	1.39
Cross-sectional variable [<i>B</i>] β_1		0.149***	3.58	0.006**	2.01
Interaction [<i>A</i> * <i>B</i>] β_2	(+)	0.058***	2.44	0.006*	1.53
Sum of coefficients:					
<i>FIRMYEAR_TOTAL</i> Δ + Interaction					
[F-stat in brackets] $\beta_0 + \beta_2$	(+)	0.061***	[6.62]	0.008**	[4.58]
Controls		Yes		Yes	
n (# of firm-years)		10,016		10,016	
Fixed effects		Industry, year		Industry, year	
Adjusted R ²		0.22		0.22	

Summary of Results Using Individual ACP Variables Instead of *FIRMYEAR_TOTAL*:

	(Pred)	Coeff.	t-stat	Coeff.	t-stat
<i>DISCUSS_SUM</i> Δ * <i>GOING_CONCERN</i>	(+)	0.153***	2.40		
<i>MGMT_LETTER_SUM</i> Δ * <i>GOING_CONCERN</i>	(+)	0.103	1.05		
<i>CERTIFY_COV_SUM</i> Δ * <i>GOING_CONCERN</i>	(+)	0.118*	1.63		
<i>DISCUSS_SUM</i> Δ * <i>HIGH_FIN_COV</i>	(+)			0.009	1.24
<i>MGMT_LETTER_SUM</i> Δ * <i>HIGH_FIN_COV</i>	(+)			0.015*	1.41
<i>CERTIFY_COV_SUM</i> Δ * <i>HIGH_FIN_COV</i>	(+)			0.017	1.76

*, **, *** Denote statistical significance at 0.10, 0.05, and 0.01, respectively (using one-tailed hypothesis tests for auditor provisions with directional predictions).

This panel reports results of regressing *AUDITLAG* Δ on changes in loan and borrower characteristics. Except for the cross-sectional variables, all variables enter as changes (observation_{*t*} – observation_{*t-1*}). In column (1), the cross-sectional variable is *GOING_CONCERN*, which is equal to 1 if the firm receives a going concern opinion in a year. In column (2), the cross-sectional variable is *HIGH_FIN_COV*, which is equal to 1 if the number of financial covenants in loan contracts for a firm in a year is above the sample median. Control variables and intercepts, although included in the models following Panel A, are repressed. The sample for these tests consists of one observation for every firm-year. Continuous variables have been Winsorized at 1 and 99 percent. t-statistics are based on standard errors clustered by firm.

All variables are described in detail in Appendix B.

Supplemental Tests—Audit Quality

Our results to this point suggest that ACPs lead to higher auditor effort because of heightened third-party litigation, which implies auditors transfer the increase in litigation risk due to the existence of ACPs directly onto the audit of borrowers’ financial statements. In this section, we further investigate whether any increase in effort due to the presence of ACPs increases audit quality as well. Specifically, we run versions of Equation (2) with proxies for audit quality as dependent variables. The proxies we use are *DISC_ACCRA* (the year-to-year change in signed performance-adjusted discretionary accruals calculated following Kothari, Leone, and Wasley 2005), and *RESTATEMENT* (an indicator variable equal to 1 if the financial statements for the fiscal year are subsequently restated).

Table 8, Panel A presents our baseline tests of audit quality and show no significant association between changes in ACPs and audit quality. However, this is before also considering the client-specific risk characteristic. Table 8, Panels B and C presents our analysis of whether audit quality also changes in response to these combined effects. Panel B employs discretionary accruals as our proxy for audit quality and shows that although δ_0 is insignificant in both columns, the interaction terms (δ_2) and total effects ($\delta_0 + \delta_2$) are both negative and significant in both columns. Thus, when third-party liability is heightened, the presence of ACPs in clients’ loan agreements appears to lead to greater audit quality when measured using discretionary accruals.

We also find limited evidence of an association between ACPs and audit quality using restatements as a proxy. In Table 8, Panel C, column (1), where the dependent variable is *RESTATEMENT* and the cross-sectional variable is *GOING_CONCERN*, the main effect on *FIRMYEAR_TOTAL* Δ (λ_0) is insignificant, whereas the total effect ($\lambda_0 + \lambda_2$)

TABLE 8
Supplemental Audit Quality Tests

Panel A: Baseline Audit Quality Tests

Dependent Variable:	(1) <i>DISC_ACCRA</i>		(2) <i>RESTATEMENT</i>	
	Coeff.	t-stat	Coeff.	t-stat
<i>FIRMYEAR_TOTALΔ</i>	-0.001	-0.18	0.001	0.46
<i>FIRMSIZEΔ</i>	-0.019**	-2.39	-0.002	-0.09
<i>ROAΔ</i>	0.125***	3.03	0.107	1.36
<i>LEVERAGEΔ</i>	0.085***	4.03	-0.074	-1.38
<i>LOSSΔ</i>	-0.046***	-12.06	0.007	0.81
<i>CURRENTASSETSΔ</i>	0.078***	2.80	0.013	0.19
<i>QUICKRATIOΔ</i>	0.009***	3.22	0.001	0.13
<i>DECEMBERYEΔ</i>	-0.038	-1.49	0.160	0.99
<i>SEGMENTSΔ</i>	-0.002	-0.40	0.006	0.42
<i>PCTFOREIGNΔ</i>	0.013	0.98	0.054	1.30
<i>GOING_CONCERNΔ</i>	0.002	0.08	-0.094**	-2.29
<i>FIRMAGEΔ</i>	0.011	1.01	0.006	0.11
<i>REPORTLAGΔ</i>	-0.000	-0.39	0.001**	1.97
<i>RATINGΔ</i>	-0.014**	-2.50	0.003	0.19
<i>BIG4Δ</i>	-0.015	-1.01	0.063	1.52
<i>ACCEL_FILERΔ</i>	0.000	0.10	0.003	0.21
<i>ICWΔ</i>	0.007	1.52	0.092***	5.47
<i>FIRMSIZE</i>	0.001*	1.90	-0.009**	-2.54
<i>ROA</i>	-0.067***	-5.18	-0.388***	-5.42
<i>LEVERAGE</i>	-0.013***	-2.73	0.077**	2.22
<i>ABNORMAL_RETURNΔ</i>	-0.002	-0.68	-0.004	-0.59
<i>MTBΔ</i>	-0.007**	-1.99	-0.015*	-1.74
<i>TOT_ACCRA</i>	0.208***	15.22	-0.014	-0.60
<i>RECEIVABLESΔ</i>	-0.006	-1.46	-0.011	-1.48
<i>INVENTORYΔ</i>	0.020*	1.92	-0.057**	-2.25
<i>EARNINGSΔ</i>	0.027***	5.93	0.002	0.48
<i>EMPLOYEESΔ</i>	-1.021***	-3.34	1.310	1.37
<i>AUDIT_FEESΔ</i>	-0.002	-0.38	0.014	1.43
<i>OFFICESIZEΔ</i>	0.000	0.27	0.000	-0.63
<i>AUDITORΔ</i>	0.001	0.11	0.017	0.86
<i>CLIENT_REL_SIZEΔ</i>	-0.001	-0.03	-0.016	-0.44
n (firm-years)		8,570		8,761
Fixed effects		Industry, year		Industry, year
Adjusted R ²		0.19		0.04
Summary of Results Using Individual ACP Variables Instead of <i>FIRMYEAR_TOTALΔ</i> :				
	Coeff.	t-stat	Coeff.	t-stat
<i>DISCUSS_SUMΔ</i>	-0.001	-0.03	0.001	0.15
<i>MGMT_LETTER_SUMΔ</i>	-0.001	-0.25	0.012	1.26
<i>CERTIFY_COV_SUMΔ</i>	-0.001	-0.21	-0.003	-0.28

*, **, *** Denote statistical significance at 0.10, 0.05, and 0.01, respectively.

This panel reports results of regressing *DISC_ACCRA* or *RESTATEMENT* on changes in loan and borrower characteristics. Changes are computed as (observation_{*t*} – observation_{*t-1*}). The sample for these tests consists of one observation for every firm-year. Intercepts, although included in the models, are repressed. Continuous variables have been Winsorized at 1 and 99 percent. t-statistics are based on standard errors clustered by firm.

All variables are described in detail in [Appendix B](#).

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TABLE 8 (continued)

Panel B: Accruals Tests, Elevated Third-Party Liability

Dep. Var. = *DISC_ACCRA*

Cross-Sectional Variable =

	(Pred)	(1)		(2)	
		<i>GOING_CONCERN</i>		<i>HIGH_FIN_COV</i>	
		Coeff.	t-stat	Coeff.	t-stat
<i>FIRMYEAR_TOTAL</i> Δ [<i>A</i>] δ ₀		-0.001	-0.13	0.001	0.60
Cross-sectional variable [<i>B</i>] δ ₁		0.086**	2.49	0.002	0.90
Interaction [<i>A</i> * <i>B</i>] δ ₂	(-)	-0.015***	-2.54	-0.003*	-1.56
Sum of coefficients:					
<i>FIRMYEAR_TOTAL</i> Δ + Interaction					
[F-stat in brackets] δ ₀ + δ ₂	(-)	-0.016***	[6.72]	-0.006*	[1.78]
Controls		Yes		Yes	
n (# of firm-years)		8,570		8,570	
Fixed effects		Industry, year		Industry, year	
Adjusted R ²		0.19		0.19	

Summary of Results Using Individual ACP Variables Instead of *FIRMYEAR_TOTAL*:

	(Pred)	Coeff.	t-stat	Coeff.	t-stat
<i>DISCUSS_SUM</i> Δ * <i>GOING_CONCERN</i>	(-)	-0.038	-1.25		
<i>MGMT_LETTER_SUM</i> Δ * <i>GOING_CONCERN</i>	(-)	-0.037**	-2.36		
<i>CERTIFY_COV_SUM</i> Δ * <i>GOING_CONCERN</i>	(-)	-0.022*	-1.74		
<i>DISCUSS_SUM</i> Δ * <i>HIGH_FIN_COV</i>	(-)			-0.005	-1.19
<i>MGMT_LETTER_SUM</i> Δ * <i>HIGH_FIN_COV</i>	(-)			-0.013**	-2.21
<i>CERTIFY_COV_SUM</i> Δ * <i>HIGH_FIN_COV</i>	(-)			-0.002	-0.40

*, **, *** Denote statistical significance at 0.10, 0.05, and 0.01, respectively (using one-tailed hypothesis tests for auditor provisions with directional predictions).

This panel reports results of regressing *DISC_ACCRA* on changes in loan and borrower characteristics. Except for the cross-sectional variables, all variables enter as changes (observation_{*t*} - observation_{*t-1*}). In column (1), the cross-sectional variable is *GOING_CONCERN*, which is equal to 1 if the firm receives a going concern opinion in a year. In column (2), the cross-sectional variable is *HIGH_FIN_COV*, which is equal to 1 if the number of financial covenants in loan contracts for a firm in a year is above the sample median. Control variables and intercepts, although included in the models following Panel A, are repressed. The sample for these tests consists of one observation for every firm-year. Continuous variables have been Winsorized at 1 and 99 percent. t-statistics are based on standard errors clustered by firm.

All variables are described in detail in [Appendix B](#).

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and interaction term (λ_2) are negative and significant. This evidence suggests that audit quality, as observable in the relatively stark restatement outcome, appears to respond to the existence of ACPs when third-party litigation risk is heightened due to client financial distress. There are no results in the *HIGH_FIN_COV* cross-section in [Table 8](#), Panel C, column (2).

Supplemental Tests—Loan Pricing Effects

In addition to nonprice terms, it is possible that ACPs are associated with loan pricing since prior literature suggests that information uncertainty is priced in debt markets (e.g., [Easley and O'Hara 2004](#); [Bharath, J. Sunder, and S. Sunder 2008](#)). To the extent that independent verification of firm disclosures enhances a firm's information environment, audit and auditor characteristics can impact the cost of debt (e.g., [Francis et al. 2017](#)). In our setting, the inclusion of ACPs in loan agreements may meaningfully enhance lenders' information and monitoring, thus leading to a decrease in loan spreads. This suggests a negative association between ACPs and loan spreads. However, both loan spreads and ACP adoption are likely to respond to lenders' need for monitoring, because agency costs or risk factors that lead lenders to demand ACPs likely also lead to higher loan spreads. This suggests a positive association between ACPs and loan spreads.

We conduct additional, untabulated exploratory analysis relating ACPs to loan spreads, using *INTEREST* as the dependent variable. In these tests, coefficients on *DISCUSS* and *CERTIFY_COV* have opposite signs and are insignificant, whereas the coefficient on *MGMT_LETTER* is positive and significant ($p < 0.01$). These mixed results could be

TABLE 8 (continued)

Panel C: Restatement Tests, Elevated Third-Party Liability

Dep. Var. = *RESTATEMENT*

Cross-Sectional Variable =

	(Pred)	(1)		(2)	
		<i>GOING_CONCERN</i>		<i>HIGH_FIN_COV</i>	
		Coeff.	t-stat	Coeff.	t-stat
<i>FIRMYEAR_TOTAL</i> Δ [A] λ ₀		0.002	0.60	0.001	0.30
Cross-sectional variable [B] λ ₁		-0.130	-1.22	0.011	0.85
Interaction [A * B] λ ₂	(-)	-0.098	-1.62	0.002	0.21
Sum of coefficients:					
<i>FIRMYEAR_TOTAL</i> Δ + Interaction					
[F-stat in brackets] λ ₀ + λ ₂	(-)	0.096*	[2.55]	0.003	[0.17]
Controls		Yes		Yes	
n (# of firm-years)		8,761		8,761	
Fixed effects		Industry, year		Industry, year	
Adjusted R ²		0.04		0.04	

Summary of Results Using Individual ACP Variables Instead of *FIRMYEAR_TOTAL*:

	(Pred)	Coeff.	t-stat	Coeff.	t-stat
<i>DISCUSS_SUM</i> Δ * <i>GOING_CONCERN</i>	(-)	-0.282**	-1.70		
<i>MGMT_LETTER_SUM</i> Δ * <i>GOING_CONCERN</i>	(-)	-0.065	-1.10		
<i>CERTIFY_COV_SUM</i> Δ * <i>GOING_CONCERN</i>	(-)	-0.272**	-1.65		
<i>DISCUSS_SUM</i> Δ * <i>HIGH_FIN_COV</i>	(-)			-0.001	-0.03
<i>MGMT_LETTER_SUM</i> Δ * <i>HIGH_FIN_COV</i>	(-)			0.004	0.17
<i>CERTIFY_COV_SUM</i> Δ * <i>HIGH_FIN_COV</i>	(-)			0.011	0.56

*, ** Denote statistical significance at 0.10 and 0.05, respectively (using one-tailed hypothesis tests for auditor provisions with directional predictions). This panel reports results of regressing *RESTATEMENT* on changes in loan and borrower characteristics. Except for *RESTATEMENT* and the cross-sectional variables, all variables enter as changes (observation_t - observation_{t-1}). In column (1), the cross-sectional variable is *GOING_CONCERN*, which is equal to 1 if the firm receives a going concern opinion in a year. In column (2), the cross-sectional variable is *HIGH_FIN_COV*, which is equal to 1 if the number of financial covenants in loan contracts for a firm in a year is above the sample median. Control variables and intercepts, although included in the models following Panel A, are repressed. The sample for these tests consists of one observation for every firm-year. Continuous variables have been Winsorized at 1 and 99 percent. t-statistics are based on standard errors clustered by firm.

All variables are described in detail in [Appendix B](#).

consistent with the competing predictions discussed in the previous paragraph. If, as argued earlier, *DISCUSS* and *CERTIFY_COV* facilitate the transfer of useful information to lenders, the corresponding negative association between these ACPs and loan spreads will offset any underlying positive association, potentially resulting in insignificant results. For *MGMT_LETTER*, the information transfer mechanism is likely to be weaker, leaving the underlying positive association to dominate.

Supplemental Tests—Robustness

First, to address the possibility that the relationship between ACPs and audit fees or accruals may be driven by clients of non-Big 4 auditors, we drop all firms from the sample that retain a non-Big 4 auditor. We observe very similar results using this sample. Second, following the intuition of [Cassell, Drake, and Dyer \(2018\)](#), we address the possibility that our results are driven in part by auditor litigation risk associated with the number of institutional investors. Specifically, we include the log of the number of a firm's institutional investors as a control variable (this data requirement reduces our sample by 38 percent, which is the reason we do not include this variable in our main analyses) and verify that our main results are robust to this change. Third, we verify our main results are robust to controlling for the number of loans outstanding within each year for a given firm. Fourth, we examine whether our audit outcome results are driven by the introduction of the first ACP or by the accumulation of multiple ACPs, finding evidence consistent with the latter. Fifth, we verify that our auditor litigation cross-sectional results in [Tables 7 and 8](#) are not concentrated specifically in subsamples of elevated credit risk, helping assuage concern that these cross-sections are driven by underlying firm risk.

V. CONCLUSION

We investigate the prevalence and consequences of auditor involvement in private lending, including some potential costs and benefits. In our examination of a large sample of private loan agreements executed during the years 2000 through 2018, we identify three contract provisions that involve different types of communication between the borrower's auditor and lender. First, auditors are often asked to make themselves available to lenders to discuss the affairs of the borrower. Second, many contracts contain provisions providing the lender access to copies of all official written audit communication between the borrower and auditor, such as management letters. Third, debt contracts often require the auditor to provide certification to the lender that they have verified debt covenants and are not aware of any default. These auditor provisions often coexist in debt contracts.

We hypothesize and document that ACPs are positively associated with loan size, loan maturity, the number of lenders in a loan syndicate, the number of financial covenants, and covenant slack at loan inception, consistent with the notion that ACPs facilitate lenders' monitoring of the borrower and that borrowers can obtain more favorable loan terms in exchange for allowing ACPs. ACPs are also positively associated with the number of financial covenants, consistent with greater demand for auditor-provided information when lenders rely on accounting numbers in monitoring borrowers. Among the three different ACP types, the provisions providing lenders access to management letters (which requires only indirect communication) appears to be the least important, exhibiting mostly insignificance in loan terms regressions. In some cases, the no default certification provision appears to be the most important, for example in helping lenders determine how much they should rely on accounting numbers in financial covenants to evaluate borrower performance. In other cases, the provision allowing for direct communication with the auditor appears to be most important, such as helping to resolve information frictions within large lending syndicates.

We further hypothesize that auditor involvement in private lending impacts audit effort due to an increase in auditors' exposure to litigation risk. We find that borrowers with debt contracts containing ACPs exhibit higher audit fees and longer audit report lags, consistent with an increase in audit effort. These associations are significantly stronger in subsamples where we expect the exposure to litigation risk overall to be high. We also find some evidence that ACPs impact audit quality. We interpret these results as evidence that litigation risk inherent to ACPs is a significant driver of increases to audit effort and audit quality.

In summary, our findings contribute to the debt contracting literature by improving our understanding of a cost-benefit tradeoff faced by contracting parties during the loan negotiation process related to the involvement of the borrower's auditors. Our findings suggest that ACPs add value in the debt contracting process and that there is significant demand for additional auditor involvement in loan contracting with implications for all parties involved, including lenders, borrowers, and auditors.

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APPENDIX A

Examples of Auditor Communication Contract Provisions

Contract #1

Borrower: AGL Resources Inc.

Lender: SunTrust Bank, Wachovia Bank, and The Bank of Tokyo-Mitsubishi

Date: June 16, 2003

Direct Communication Provision**SECTION 6. AFFIRMATIVE COVENANTS****6.6 Inspection of Property; Books and Records; Discussions.**

(b) permit representatives of the Administrative Agent or any Lender to visit and inspect any of its properties and examine and make abstracts from any of its books and records during normal business hours and, if no Event of Default has occurred and is continuing, **upon reasonable notice and as often as may reasonably be desired and to discuss their respective businesses, operations, properties and financial and other condition with their respective officers and employees and with their independent certified public accountants**; provided, that unless an Event of Default has occurred and is continuing, the Administrative Agent and the Lenders shall use their reasonable efforts to coordinate any such visits or inspections so as to minimize disruption of the conduct of their respective businesses, as applicable (emphasis added).

Contract #2

Borrower: The Children's Place Retail Stores, Inc.

Lender: Wells Fargo Bank

Date: July 31, 2008

Management Letter Provision**ARTICLE VI. AFFIRMATIVE COVENANTS**

6.02 Certificates; Other Information. Deliver to the Administrative Agent, in form and detail satisfactory to the Administrative Agent:

(e) promptly upon receipt, **copies of any detailed audit reports, management letters or recommendations submitted to the board of directors (or the audit committee of the board of directors) of any Loan Party by its public accounting firm in connection with the accounts or books of the Loan Parties or any Subsidiary, or any audit of any of them, in each case to the extent permitted by the policies of its public accounting firm at such time** (emphasis added).

Direct Communication Provision**6.09 Books and Records; Accountants.**

(b) At all times **retain BDO Seidman, LLP or another public accounting firm which is reasonably satisfactory to the Administrative Agent and instruct such public accounting firm in writing to cooperate with, and be available to, the Administrative Agent or its representatives to discuss the Loan Parties' financial performance, financial condition, operating results, controls, and such other matters, within the scope of the retention of such public accounting firm, as may be raised by the Administrative Agent**; provided that the Lead Borrower shall be entitled to participate in any such meetings or discussions. The Lead Borrower hereby irrevocably authorizes and directs all auditors, accountants, or other third parties to deliver to the Administrative Agent, at the Borrowers' expense, copies of the Borrowers' financial statements, papers related thereto, and other accounting records of any nature in their possession, and to disclose to the Administrative Agent any information they may have regarding the Collateral or the financial condition of the Borrowers, in each case to the extent permitted by the policies of such auditors, accountants or other third parties at such time; provided that the Lead Borrower shall be entitled to be provided with copies of any such financial statements, papers, accounting records or disclosures contemporaneously therewith (emphasis added).

Contract #3

Borrower: Dealertrack Holding, Inc.

Lender: Keybank and JPMorgan Chase Bank

Date: April 20, 2011

Debt Covenants Verification Provision**SECTION 6. AFFIRMATIVE COVENANTS**

6.2 Certificates; Other Information. Furnish to the Administrative Agent and each Lender (or, in the case of provision (h), to the relevant Lender):

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APPENDIX A (continued)

(a) no later than 5 Business Days after the delivery of the financial statements referred to in Section 6.1(a), a certificate of the independent certified public accountants reporting on such financial statements stating that in making the examination necessary therefor no knowledge was obtained of any Event of Default pursuant to Section 7.1, except as specified in such certificate (emphasis added).

Direct Communication Provision**6.6 Inspection of Property; Books and Records; Discussions.**

(b) permit representatives of the Administrative Agent or any Lender to visit and inspect any of its properties and examine and make abstracts from any of its books and records at any reasonable time upon reasonable advance notice to the Company and to discuss the business, operations, properties and financial and other condition of the Group Members with officers and employees of the Group Members and with their independent certified public accountants; provided that, excluding any such visits and inspections during the continuation of an Event of Default, only the Administrative Agent on behalf of the Lenders may exercise rights under this Section 6.6 and the Administrative Agent shall not exercise such rights more often than two (2) times during any calendar year absent the existence of an Event of Default and only one (1) such time shall be at the Company's expense; provided, further, that when an Event of Default has occurred and is continuing the Administrative Agent or any such Lender (or any of their respective representatives or independent contractors) may do any of the foregoing at the expense of the Company at any time during normal business hours and upon reasonable advance notice. The Administrative Agent and the Lenders shall give the Company the opportunity to participate in any discussions with the Company's accountants (emphasis added).

APPENDIX B

Variable Definitions

AUDITOR_PROVISION Variables (Based on ACPs in Loan Agreements)

- CONTRACT_TOTAL** [a+b+c] = The sum of **CERTIFY_COV**, **MGMT_LETTER**, and **DISCUSS** within an individual contract.
- DISCUSS** [a] = An indicator variable set to 1 if the loan contract contains a provision indicating that the lenders are authorized to discuss the affairs of the borrower with the borrower's auditors; 0 otherwise.
- MGMT_LETTER** [b] = An indicator variable set to 1 if the loan contract contains a provision indicating that the lenders require copies of formal communication between the borrower and the borrower's auditors (e.g., management letters); 0 otherwise.
- CERTIFY_COV** [c] = An indicator variable set to 1 if the loan contract contains a provision indicating that the lenders require the borrower's auditors to certify that the borrower is in compliance with loan covenants; 0 otherwise.
- FIRMYEAR_TOTAL** [d+e+f] = The sum of **CERTIFY_COV_SUM**, **MGMT_LETTER_SUM**, and **DISCUSS_SUM** across contracts in force for each firm-year.
- DISCUSS_SUM** [d] = The sum of **DISCUSS** across contracts in force for each firm-year.
- MGMT_LETTER_SUM** [e] = The sum of **MGMT_LETTER** across contracts in force for each firm-year.
- CERTIFY_COV_SUM** [f] = The sum of **CERTIFY_COV** across contracts in force for each firm-year.
- Other Variables
- ABNORMAL_RETURN** = The 12-month compound stock return for each firm-year minus the 12-month CRSP value-weighted market return.
- ACCEL_FILER** = An indicator set to 1 if the borrower is identified as a large accelerated filer by Audit Analytics; 0 otherwise.
- AUDIT_FEES** = The log of audit fees.
- AUDITLAG** = The number of days separating fiscal year end and the date of the auditor's report.
- AUDITORA** = An indicator variable set to 1 if the borrower's auditor changed in a given year; 0 otherwise.

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APPENDIX B (continued)

<i>AUDITOR_EXPERT</i>	= An indicator variable set to 1 if the borrower's auditor is the city-level industry expert auditor, and 0 otherwise, where industry expertise is calculated based on total audit fees charged by the audit firm to clients within a particular Metropolitan Statistical Area and industry (following Francis and Michas 2013). The audit firm with the highest amount of audit fees within an industry in a city-year is classified as the city-level industry expert. Industries are defined using two-digit SIC.
<i>AUDITOR_TENURE</i>	= The number of consecutive years that the borrower has retained its current auditor.
<i>BIG4</i>	= An indicator variable set to 1 if the borrower's auditor is one of the Big 4; 0 otherwise.
<i>CFO_VOLATILITY</i>	= The standard deviation of quarterly cash flows from operations over the previous four fiscal years, scaled by total assets.
<i>CLIENT_REL_SIZE</i>	= The total dollar value of audit fees charged to a specific client in a given year, scaled by the total audit fees charged by the auditor office in the same year.
<i>COLLATERAL</i>	= An indicator variable set to 1 if the loan is backed by collateral; 0 otherwise.
<i>COV_SLACK</i>	= PVIOL multiplied by -1, where PVIOL is the covenant violation probability score as calculated by Demerjian and Owens (2016). To summarize, one-quarter-ahead financial ratios for DealScan borrower firms are simulated by randomly drawing a firm-quarter observation from within the same size-profitability bin of a broad Compustat sample. The change in the random matched financial measure is multiplied by the borrower's actual financial measure to obtain a forecasted financial measure for the borrower. This forecast procedure is repeated 1,000 times and PVIOL is the number of iterations where a covenant violation is forecasted, divided by 1,000.
<i>CURRENTASSETS</i>	= Current assets divided by total assets.
<i>DECEMBERYE</i>	= An indicator variable set to 1 if the borrower's fiscal year end is December 31; 0 otherwise.
<i>DISC_ACCR</i>	= Performance-adjusted discretionary accruals calculated following Kothari et al. (2005).
<i>EARNINGS</i>	= Net income.
<i>EMPLOYEES</i>	= The number of employees.
<i>FIRMAGE</i>	= The log of the number of years that the firm has appeared in CRSP.
<i>FIRMSIZE</i>	= The log of total assets.
<i>FIRST_LENDING</i>	= An indicator variable set to 1 for loans which pair a given lead lender and a given borrower for the first time in the DealScan database; 0 otherwise.
<i>GOING_CONCERN</i>	= An indicator variable set to 1 if the firm received a going concern opinion for the fiscal year; 0 otherwise.
<i>HIGH_FIN_COV</i>	= An indicator variable set to 1 if the average number of financial covenants in loan contracts outstanding for a firm in a given year is above the sample median; 0 otherwise.
<i>ICW</i>	= An indicator variable set to 1 if an internal control weakness is reported; 0 otherwise.
<i>INTEREST</i>	= The all-in spread drawn from the DealScan database (in basis points over LIBOR).
<i>INVENTORY</i>	= Inventory.
<i>LEVERAGE</i>	= Long-term debt divided by total assets.
<i>LOAN_SIZE</i>	= The log of loan size (in millions of dollars).
<i>LOSS</i>	= An indicator variable set to 1 if net income is less than zero; 0 otherwise.
<i>MATURITY</i>	= The log of the loan's maturity in months.
<i>MTB</i>	= The market value of debt and equity scaled by book assets.
<i>NUMFINCOV</i>	= The total number of financial covenants in the loan contract.
<i>NUM_LENDER</i>	= The log of the number of lenders in the lending syndicate.
<i>OFFICESIZE</i>	= The number of employees at the auditor's office.
<i>PCTFOREIGN</i>	= Nondomestic sales as a proportion of total sales, computed using the Compustat Segments database.
<i>PERFPRICE</i>	= An indicator variable set to 1 if the loan facility uses performance pricing; 0 otherwise.
<i>POOR_RATE</i>	= An indicator variable set to 1 for borrowers with a credit rating lower than B-; 0 otherwise.
<i>QUICKRATIO</i>	= Current assets (less inventory) divided by current liabilities.
<i>RATING</i>	= An indicator variable set to 1 if the firm has an S&P long-term senior debt rating; 0 otherwise.
<i>RECEIVABLES</i>	= Accounts receivable.

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APPENDIX B (continued)

<i>REPORTLAG</i>	= The number of days separating fiscal year-end and the associated earnings report date.
<i>RESTATEMENT</i>	= An indicator variable set to 1 if the financial statements for year <i>t</i> are subsequently restated; 0 otherwise.
<i>REVOLVER</i>	= An indicator variable set to 1 if the loan facility is a revolver; 0 otherwise.
<i>ROA</i>	= EBIT divided by total assets.
<i>SEGMENTS</i>	= The log of (1 + the number of business segments).
<i>TOT_ACCR</i>	= The measure of total accruals developed by Richardson, Sloan, Soliman, and Tuna (2005) : $TOT_ACCR = (\Delta \text{Working Capital} + \Delta \text{Noncurrent Operating Assets} + \Delta \text{Net Financial Assets}) / \text{average total assets.}$
<i>TANGIBILITY</i>	= Net PPE divided by total assets.
<i>ZSCORE</i>	= An estimate of the probability of bankruptcy: $1.2 * (\text{current assets} - \text{current liabilities}) / \text{total assets} + 1.4 * (\text{retained earnings} / \text{total assets}) + 3.3 * (\text{net income} + \text{interest expense} + \text{income tax expense}) / \text{total assets} + 0.6 * (\text{common shares outstanding} * \text{share price} / \text{total liabilities}) + 0.999 * (\text{sales} / \text{total assets}).$
