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Lenders' Influence On Borrower Firms' Internal Controls

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LENDERS' INFLUENCE ON BORROWER FIRMS' INTERNAL CONTROLS

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2019

Dedication

I dedicate my dissertation to my family. I am very much grateful to my loving parents who encourage me and push me every moment to go beyond the limit and have beliefs in my capabilities. I am very much grateful to my wife and my son for their lot of sacrifice, inspiration, support, love and care during my Ph.D. journey. I am also very much thankful to my brothers and sister for providing lot of inspirational support, love and care during this journey. Without your support, pursuing my Ph.D. dream would have been very tough to accomplish.

LENDERS' INFLUENCE ON BORROWER FIRMS' INTERNAL CONTROLS

by

MD MAHMUDUL HASAN, MSA, MBA

DISSERTATION

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Abstract

I identify a covenant in commercial loan contracts that requires borrowers to provide lenders internal control-related private information. Lenders use accounting information to monitor loan contracts and reliable accounting information is dependent on effective internal controls of the firm. I argue and provide evidence that lenders are more likely to demand internal control-related private information when borrowers have weak internal controls, when lenders use more accounting information in debt contracts, and when debt contracts have terms that expose lenders to greater risk. I further show that lenders' demand for internal control-related private information is positively associated with improvement in borrower firms' internal controls as reflected in subsequent remediation and faster remediation of these firms' material weaknesses in internal controls.

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1. Introduction

Lenders in commercial loan contracts have superior access to borrowers' non-public information (Fama 1985; James 1987). Private lenders are exempt from the Regulation FD disclosure and thus borrowers can provide them their private information (Armstrong, Guay, and Weber 2010).¹ To monitor loan contracts and set debt covenants, lenders extensively depend on accounting information and periodically demand accounting-related private information from borrowers (Sloan 2001; Dichev and Skinner 2002; Asquith, Beatty, and Weber 2005; Minnis and Sutherland 2017; Carrizosa and Ryan 2017). Lenders rely on the financial numbers that they receive from the borrowers to effectively monitor loan contracts and reliability of financial information depends on the effectiveness of internal controls. However, prior literature provides no evidence on how lenders use borrowers' private information not only to influence loan contract design but also to influence other aspects of financial reporting process, such as, internal controls.

In some debt contracts, under affirmative covenant sections, lenders insert clauses asking borrowers to submit non-public information related to internal controls. Lenders usually ask borrowers to submit to them management letters or any such communication received from the auditors.² Lenders require borrowers to submit management letters to them either on periodic basis or on request basis. Under periodic basis, borrowers have to submit management letters to lenders whenever they received them and under request basis, borrowers have to submit only

¹ I term lenders of commercial loan contracts or private lending agreements as private lenders.

² See appendix A for an example of lender's demand for management letters. Management letters are not a must, but auditors use these letters to communicate other deficiencies in internal controls that are of sufficient importance to merit management's attention, other audit related issues, and recommendations for improvement noted during the audit (AICPA AU-C-Section 265, para.12b).

when lenders requested them. Following the passage of Sarbanes-Oxley Act (SOX) of 2002, under Section 404, public firms are required to provide an auditor-attested assessment of the effectiveness of their internal controls in annual report (10-K filing). However, executives are required to publicly disclose only material weaknesses of their internal controls (SEC 2004, Doyle et al. 2007a).³ Auditors should communicate to management, in writing, all other deficiencies in internal controls over financial reporting identified during an audit (PCAOB 2007, para.81). Auditors usually communicate these deficiencies in internal controls through management letters. I consider contents of management letters as internal control-related private information.

In this study, I try to explore why lenders include clauses in debt contracts that require borrowers to provided internal control-related private information to lenders and whether collection of this private information has any association with the improvement of borrower firms' existing weaknesses in internal controls. Lenders may use borrower firms' internal control-related private information to monitor their loan contracts. Lenders' collection of such internal control-related private information may put pressure on the borrowers to improve their existing weaknesses in internal controls. Ineffectiveness in internal controls reveals to the lenders that they have less reliable accounting information to assess default risk and to determine compliance with debt covenants (Costello and Wittenberg-Moerman 2011; Kim, Song, and Zhang 2011).

³ A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected (PCAOB 2004, para.10). A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the company's ability to initiate, authorize, record, process, or report external financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of the company's annual or interim financial statements that is more than inconsequential will not be prevented or detected (PCAOB 2004, para.9).

Prior literature provides limited discussion on lenders' demand for internal control-related private information in debt contracts. In this regard, my study can be viewed as exploratory in nature, and a first step in examining the association between lenders' demand for internal control-related private information and borrower firms' internal controls. I argue that after the revelation of weaknesses in internal controls of firms, lenders are likely to consider increased monitoring of loan contracts with those firms. In this regard, contents of the management letters may help private lenders. To facilitate loan contract monitoring, for the loans that originate or are amended after the revelation of borrower firms' internal control weaknesses, lenders are likely to ask borrowers to provide management letters. Besides this, when lenders use more accounting information in setting debt contract terms – such as financial covenants, performance-pricing provisions based on accounting information – they are more likely to demand internal control-related private information from the borrowers to monitor loan contracts with these firms.⁴ I consider two measures to capture borrower firms' prior-period internal control weaknesses – SOX404 disclosure of material weakness in internal controls and restatement of prior-period financial statements when the cause of misstatement is internal control deficiency.

Lenders' monitoring of loan contracts by demanding internal control-related private information from the borrowers may work as a governance mechanism to influence borrowers to remediate their internal control problems. Firms may not be willing to invest time and resources to remediate their internal control weaknesses because such efforts divert attention and resources from core business activities (Goh 2009). From management letters, lenders come to know about the deficiencies in internal controls or possible improvement areas. So, if the borrowers need

⁴ Performance-pricing provision is a contracting feature that provides for changes in interest rates over the life of the debt contract based on measures of performance – typically accounting measures or debt ratings (Armstrong, Guay, and Weber 2010).

refinancing or want to negotiate with the lenders for possible favorable changes in debt contract terms, borrowers are likely to take steps to improve their existing weaknesses in internal controls before approaching the lenders. Lenders' demand for internal control-related private information from the borrowers may give a signal to the borrowers about lenders' increased interest or concern on their internal controls. This signaling could be a mechanism by which lenders influence borrowers to take steps to remediate their existing material weaknesses in internal controls.

To conduct the analyses on lenders' monitoring of loan contracts by demanding borrower firms' internal control-related private information, I create a novel dataset of 5,825 loan contracts (both new and amended) from SEC filings (8-Ks, 10-Qs, and 10-Ks) using Python coding. I find that in 37% of the loan contracts, lenders demand internal control-related private information from borrowers. This demand is significantly higher for firms with ineffective internal controls (49%) and restatement firms (62%) compared to firms with effective internal controls (36%) and non-restatement firms (37%).⁵ From the multivariate analyses, after controlling for firm characteristics and loan characteristics, I find that lenders' demand for internal control-related private information is positively associated with borrower firms' existing internal control weaknesses and is consistent with my prediction. I also find that lenders are more likely to demand this information when they use more accounting information in debt contracts and when loan maturity is high.

To examine whether lenders' demand for internal control-related private information has any association with improvement in borrower firms' existing weaknesses in internal controls, I

⁵ I identify lenders' demand for internal control-related private information in loan contracts that originated or are amended in the year $(t+1)$ period following the revelation of a firm's internal control status (effective or ineffective) or a restatement related to internal control deficiency in t period.

create a sample of firms that have disclosed material weaknesses in internal controls under Section 404 of SOX and for which other related data are available. I investigate remediation in year 1 and year 2 and timeliness of remediation – how quickly the material weakness is remedied. I find that lenders’ demand for internal control-related private information is positively associated with firms’ remediation of material weaknesses and with faster remediation of material weaknesses.

This study makes several important contributions to the literature. First, this study adds to the limited literature (Carrizosa and Ryan 2017; Minnis and Sutherland 2017) discussing mechanisms through which lenders obtain private information to monitor loan contracts and how this private information serves lenders’ different purposes even without strict enforcement of financial covenants and contractual transfer of control rights to lenders. This study provides evidence that private lenders use borrower firms’ internal control-related private information to monitor their loan contracts. This monitoring may serve the lenders’ purpose of influencing borrowers to improve their internal controls even without transfer of control rights to the lenders.

Second, this study makes important contribution to the debt contracts literature. This study shows how private lenders can influence borrower firms to improve their internal controls by including internal control-related private information covenant in debt contracts. Third, this study adds to the literature discussing remediation of firms’ weak internal controls. This study shows how private lenders can be associated with the remediation process of firms’ weak internal controls. The findings of this study suggest that internal-control covenant could be a mechanism of the lenders to influence borrowers to remediate their material weaknesses in internal controls.

This study is not free from caveats. First, I document associations but not causal relations between lenders' demand for internal control-related private information and borrower firms' internal control weaknesses, borrower firm characteristics, loan characteristics, and remediation of borrower firms' material weaknesses. Second, though I find a positive relation between internal control covenant and the remediation of borrower firms' material weaknesses, it is not clear what exactly lenders do with the internal control-related private information to influence borrowers. It is also not clear what really borrowers do after inclusion of such covenants in debt contracts to remediate their internal controls. Third, analyses of this study are largely based on whether lenders have asked for management letters or any such communication received from the auditors, which is conditional on borrowers' receipt of such communication from the auditors at the first place. Borrowers' receipt of management letters from the auditors may again depend on the proactiveness of the auditors, quality of the auditors, relationship of the borrowers with the auditors, and auditor related other unknown factors. This study does not consider these aspects. These limitations open opportunities for future research.

The remainder of this paper is organized as follows. In Section 2, I discuss background of this paper and review related literature. In Section 3, I discuss hypotheses development. In Section 4, I discuss empirical models used for this study, describe data collection, sample construction, and variables of interest. In Section 5, I present results from empirical tests. I summarize findings of this project and conclude in Section 6.

2. Background and Literature Review

Debt is the primary source of external capital around the world and firms access debt markets far more frequently than equity markets (Armstrong, Guay, and Weber 2010; Nikolaev 2017). As capital providers, lenders have incentives to ensure timely repayment of loans and adequate returns on their loans. Loan contracts include various covenants and terms to achieve this goal (Smith and Warner 1979). Carrizosa and Ryan (2017) argue and provide evidence that to determine when and how to exercise contractual rights, lenders monitor borrowers' current and likely future compliance with loan contract terms. They show that lenders periodically demand accounting-related private information from borrowers to monitor loan contracts. Minnis and Sutherland (2017) also provide evidence of the fundamental information demand for financial reporting in monitoring loan contracts. The explicit role of accounting information in debt contracts is extensive (Sloan 2001).

2.1 Lenders' Demand for Internal Control-Related Private Information

Compared to other capital providers, private lenders have superior access to borrowers' private information. The relationship between private lenders and borrowers is different from the relationship of borrowers with other capital providers, such as public bondholders and stockholders because private lenders have access to non-public information of the borrowers, which other capital providers don't have (Fama 1985; James 1987). Private lenders are exempt from the Regulation FD disclosure restrictions and thus borrowers are allowed to provide private lenders with access to their management and private information (Armstrong, Guay, and Weber 2010). Prior literature related to lenders' use of borrowers' private information, finds that lenders use borrowers' private information for loan contract monitoring (Acharya and Johnson 2007;

Bushman, Smith, and Wittenerg-Moerman 2010; Massoud et al. 2011; Minnis and Sutherland 2017; Carrizosa and Ryan 2017). However, the literature prior to Carrizosa and Ryan (2017) does not mention specific mechanisms by which lenders obtain and use accounting-related borrower private information for loan contract monitoring. Carrizosa and Ryan (2017) identify two types of accounting related private information that lenders demand from borrowers – projected financial statements for future periods and monthly financial statements. They also identify a third type of borrower private information covenant – requirements for borrowers to provide written communications received from auditors (“management letters”).

Following the passage of Sarbanes-Oxley Act (SOX) of 2002, managers are required to report on the effectiveness of internal controls over financial reporting. Under Section 302 of SOX, executives are required to certify that they have evaluated the effectiveness of their internal controls over financial reporting and report this in their periodic reports (e.g. 10-Qs and 10-Ks). If they find any material weakness in their internal controls, they cannot report that the controls are effective and must disclose the identified material weaknesses (SEC 2004, Doyle et al. 2007a). Section 404 of SOX has the provision that requires public firms to include in their annual reports (10-Ks) an assessment by management of the effectiveness of the internal control structures and procedures of the issuer for financial reporting that is attested to by the firm’s public accountants. The disclosure of material weaknesses is mandatory whereas the disclosure of other deficiencies is voluntary. Under both Section 302 and 404 of SOX, executives are required to publicly disclose only material weaknesses of their internal controls.

Auditors must communicate on a timely basis significant deficiencies or material weaknesses identified during an audit in writing to those charged with governance – management and the audit committee (AICPA AU-C-Section 265, para.11; PCAOB 2007, para.78,79, & 80). Auditors

should communicate to management, in writing, all other deficiencies in internal controls over financial reporting identified during an audit (PCAOB 2007, para.81). Auditors usually communicate other deficiencies in internal controls through management letters. Auditors use management letters to communicate other deficiencies in internal controls that are of sufficient importance to merit management's attention, other audit related issues, and recommendations for improvement noted during the audit (AICPA AU-C-Section 265, para.12b).

In some debt contracts, under affirmative covenant sections, lenders insert clauses asking borrowers to submit to them management letters or any such communication received from the auditors. Lenders address internal control-related requirements usually in the affirmative covenant sections of the lending agreements.⁶ I explore why a lender may demand this private information from borrowers. In this study, I empirically examine whether lenders' demand for internal control-related private information is associated with borrowers' exhibition of weaknesses in internal controls, borrower characteristics, and loan characteristics.

There are some prior studies that do similar kind of studies from different perspectives. Carrizosa and Ryan (2017) examine whether lenders' demand for information for loan contract monitoring explains the existence of loan covenants that commit borrowers to disclose accounting-related private information periodically to lenders after loan origination. Minnis and Sutherland (2017) examine when banks use financial statements to monitor borrowers after loan origination. They find that banks request financial statements for half the loans and this variation is related to borrower credit risk, relationship length, collateral, and the provision of business tax

⁶ Affirmative covenants require the borrower to take certain actions, such as meeting generally accepted accounting principles, timely submission of financial information to the lender, meeting all regulatory reporting demands, paying taxes, maintaining equipment, buying insurance, and remaining compliant with the law (Nini, Smith, and Sufi 2012).

returns. Baylis et al. (2017) examine clauses in private lending agreements that require auditors to assure lenders that borrowers are in compliance with financial covenants. They find that lenders' demand for covenant compliance assurance clauses in debt contracts is associated with more complex contractual adjustments to net income, lenders' use of more accounting information, intangibility of borrowers' assets, the number of lenders, and loan maturity. Chen, He, Ma, and Stice (2016) examine how auditor's explanatory language in modified audit opinion is related to loan characteristics. They find that lenders charge higher spreads, require fewer financial covenants but more general covenants when loans are issued after the borrowers' receipt of modified audit opinion. Menon and Williams (2016) examine when lenders demand going concern audit report covenant in debt contracts. Specifically, they investigate the use of lenders' common audit-related debt covenant, which requires borrowers to have an audit report that is free of going concern modification. They find that lenders demand going concern audit report covenant in debt contracts when credit risk of the borrower increases and when term of the loan increases. My study adds to this literature examining the conditions under which lenders demand internal control-related private information from the borrowers.

2.2 The Relationship Between Lenders' Demand for Internal Control-Related Private Information and The Remediation of Borrower Firms' Weak Internal Controls

Prior literature discusses the roles of different corporate governance mechanisms in the remediation of firms' weak internal controls. This literature mostly focuses on the remediation of material weaknesses in internal controls. Skaife, Collins, Kinney, and LaFond (2008) find that firms that remediate their internal control deficiencies exhibit an increase in accrual quality. Goh (2009) examines whether audit committees and board of directors play any role in monitoring the remediation of internal control deficiencies. He finds that proportion of audit committee

members with financial expertise, firms with larger audit committees, and independent board are associated with faster remediation of internal control deficiencies. Li, Sun, and Ettredge (2010) argue that chief financial officers (CFOs) play key role in ensuring internal control quality. They find that remediation of weaknesses in internal controls is positively associated with hiring a better qualified CFO. Johnstone, Li, and Rupley (2011) find that remediation of weak internal controls is positively associated with changes in different elements of governance, such as increases in the proportion of independent directors on the board, improvements in audit committee member financial expertise, and changes involving having an audit committee member chairing the board etc. Guo, Huang, Zhang, and Zhou (2015) investigate the role of employment policies in reducing internal control deficiencies and financial restatements. They find that employee-friendly policies significantly reduce the propensity for employee-related material weaknesses. Briefly, this literature is mostly concentrated on the roles of board, characteristics of board, and audit committee in the remediation of internal control weaknesses in firms. This literature does not investigate whether external forces, such as private lenders can play any influence in the remediation of borrower firms' internal control deficiencies.

Lenders' demand for internal control-related private information from weak internal control firms may contribute to the remediation of weak internal controls of those firms. If lenders' demand for internal control-related private information is for intense monitoring of the loan contracts with ICW firms, this covenant will create a passive pressure for the borrower firms to improve their internal controls. Because from management letters, lenders come to know about the deficient areas of internal controls and possible improvement areas related to internal controls. If the borrowers need refinancing or want to negotiate with the lenders for possible favorable changes in debt contract terms, borrowers are likely to take steps to improve their

existing weaknesses in internal controls before approaching the lenders. I empirically investigate whether lenders' demand for internal control-related private information has any association with the remediation of borrower firms' weak internal controls.

3. Hypotheses Development

A weak internal control is associated with low-quality accruals and poses an environment that has the potential to allow both intentionally biased accruals through earnings management and unintentional errors in accrual estimation (Doyle, Ge, and McVay 2007b; Ashbaugh-Skaife, Collins, Kenney, and LaFond 2008). If lenders know that a borrower firm's internal controls are weak, they can either decrease the use of financial reporting information for loan contract monitoring or include terms in loan contracts that influence borrowers to improve their internal controls. Negative consequences of ineffective internal controls are not just limited to poor financial reporting quality. Weak internal control is also related to higher cost of equity and debt (Ogneva, Subramanyam, and Raghunandan 2007; Costello and Wittenberg-Moerman 2011), higher management and analyst forecast errors (Feng, Li, and McVay 2009), investment inefficiency (Cheng, Dhaliwal, and Zhang 2013), poor operating performance (Feng, Li, McVay, and Skaife 2014), and increased risk of financial reporting fraud by top managers (Donelson, Ege, and McInnis 2016).

Though lenders have access to borrowers' inside information, the information risk incurred by weak internal controls cannot be removed because financial reporting related inside information of a weak internal control firm may not be useful (Kim, Song, and Zhang 2011). In this regard, lenders may consider influencing borrowers to improve their internal controls. Based on the literature discussing negative consequences of ineffective internal controls, I argue that if lenders use financial reporting information – irrespective of private or public – for loan contract monitoring, they will also have interest to know about the effectiveness of internal control setup which lies at the center of producing reliable financial information. If the lenders know in

advance that the borrower firm has weak internal controls, they can either use less financial reporting information for loan contract monitoring and depend on alternative monitoring mechanisms or include internal control-related terms in loan contracts to induce possible improvement.

As reviewed above in section 2.1, there is limited discussion in prior literature regarding lenders' demand for internal control-related private information in debt contracts. Though investigating lenders' demand for internal control-related private information is exploratory in nature, I provide some predictions based on prior literature. The financial reporting system is the primary source of independently verified information, which capital providers use to monitor performance of managers (Sloan 2001). Creditors use financial reporting numbers to assess the default risk and creditworthiness of the borrowers. Ineffective internal control over financial reporting decreases the reliability of financial numbers reported, which lenders use to assess default risk and to determine borrowers' compliance with debt covenants (Dhaliwal, Hogan, Trezevant, and Wilkins 2011). I conjecture that when lenders come to know about borrower firms' weak internal controls, they will consider including terms related to internal controls to monitor loan contracts. Because, management letters provide timely information about the deficiencies and potential improvement areas of the borrowers' internal controls, lenders can use this information for monitoring purposes. Accordingly, I predict that lenders are likely to demand internal control-related private information in loan contracts that originate or are amended following the revelation of borrower firms' weak internal controls. Based on the discussion above regarding the possible relationship between borrowers' existing internal control weaknesses and lenders' demand for internal control-related private information, I provide the following hypothesis:

H1: *Lenders' demand for internal control-related private information is positively associated with borrower firms' prior period revelation of having internal control weaknesses (i.e. SOX 404 disclosure of material weakness; restatements due to weak internal controls).*

My next hypothesis is related to private lenders' use of accounting information in debt contracts, loan size, and maturity of the loan. Debt contracts often use accounting information as the direct input to decide debt contract terms – such as financial covenants and performance-pricing provisions. Financial covenants are designed based on accounting information. Roberts and Sufi (2009) find that 96% of all private agreements contain at least one financial covenant. Lenders monitor financial covenants on a regular basis for efficient contracting. Besides this, debt contracts often include performance-pricing provisions under which interest rates are adjusted based on the accounting information. Lenders' inclusion of performance-pricing provisions increases the importance of accounting information (Sloan 2001; Asquith, Beatty, and Weber 2005). An effective internal control setup is a precondition to produce reliable accounting information that lenders can use to evaluate financial covenants and performance-pricing provisions. I argue that if the use of accounting information is high in debt contracts in terms of including more financial covenants and performance-pricing provisions, it is likely that lenders will want to know more about borrower firms' internal controls more intensely. Accordingly, lenders are more likely to demand internal control-related private information when they use more accounting information in debt contracts.

Lenders bear greater risk for larger loan amount and longer loan maturity. Carrizosa and Ryan (2017) argue that lenders should more closely monitor loan contracts that expose them to greater risk. Accordingly, they predict that loans with larger loan amount and longer loan maturity are more likely to include borrower private information covenants in debt contracts. Prior literature also finds that for longer maturity loans, lenders demand more audit-related

covenants from the borrowers (Menon and Williams 2016; Baylis et al. 2017). Accordingly, I expect that loans with larger amount and longer maturity are more likely to demand internal control-related private information in debt contracts. Based on the discussion above on the relation between lenders' demand for internal control-related private information and loan characteristics, such as loan maturity, loan size, and higher use of accounting information in debt contracts, I provide the following hypothesis:

H2: *Lenders' demand for internal control-related private information is positively associated with (i) lenders' higher use of accounting information in debt contracts and with (ii) loan contract terms (e.g. loan size and maturity) that expose lenders to greater risk.*

My next hypothesis is related to the moderating effect of relationship lending in lenders' demand for internal control-related private information. Loan contracts include private information covenants in settings where they enhance lenders' loan contract monitoring (Carrizosa and Ryan 2017). If lenders already know the borrower through relationship lending, there might be reduced need for more intense monitoring of the loan contracts with these borrowers (Diamond 1991, Rajan 1992). Relationship lending reduces information asymmetry between borrowers and lenders (Bharath et al. 2009). Relationship lenders may have extensive knowledge about borrower firms' internal controls from previous transactions. Following the revelation of weak internal controls in borrower firms, the reaction of relationship lenders may not be the same as the reaction of relatively new lenders. Since the relationship lenders already know about borrower firms' internal controls from previous transactions, they may not ask for additional private information related to internal controls from the borrowers. Accordingly, I expect that demand for internal control-related private information will be less for relationship lenders compared to non-relationship lenders. In this regard, I provide the following hypothesis:

H3: *Lenders' demand for internal control-related private information will be mitigated if the lenders have prior lending relationships with the borrowers.*

My next hypothesis is related to the impact of lenders' demand for internal control-related private information on subsequent remediation of internal control weaknesses. Prior literature provides evidence of lenders' providing a governance role to the borrower firms. Lenders influence borrower firms' capital structure, changes in top management, CEO compensation, and disclosure decisions (Roberts and Sufi 2009; Nini, Smith, and Sufi 2012; Vashistha 2014; Balsam, Gu, and Mao 2018). However, this literature does not investigate whether lenders play any governance role in the remediation of borrower firms' internal control weaknesses. I investigate whether lenders' demand for internal control-related private information is associated with the remediation of borrower firms' internal control weaknesses. Goh (2009) argues that when internal control deficiencies are detected, management may not be willing to invest time and resources in remediating these deficiencies because such efforts divert attention and resources from core business activities. Bedard, Hoitash, Hoitash, and Westermann (2012) find that resource constraints inhibit remediation of entity-level problems requiring large investment in personnel and systems (information technology, inadequate segregation of duties and training).

I argue that private lenders come to know about the deficient areas of internal controls and possible improvement areas related to internal controls from management letters. If the borrowers need refinancing or want to negotiate with the lenders for possible favorable changes in debt contract terms, borrowers are likely to take steps to improve their existing weaknesses in internal controls before approaching the lenders. When lenders demand internal control-related private information, this demand may influence borrowers to put increased effort to improve

their internal controls quickly. Based on the discussion on possible relation between lenders' demand for internal control-related private information and the remediation of borrower firms' internal control weaknesses, I provide the following hypotheses:

H4a: *Lenders' demand for internal control-related private information is positively associated with the probability of subsequent remediation of borrower firms' internal control weaknesses.*

H4b: *Lenders' demand for internal control-related private information is positively associated with the probability of faster remediation of borrower firms' internal control weaknesses.*

4. Research Design

4.1 Empirical Models

To examine the relation of lenders' demand for internal control-related private information with the existence of borrower firms' internal control weaknesses (hypothesis 1) and with loan characteristics (hypothesis 2), I estimate following logistic regression,

$$\begin{aligned} \Pr(IC_Cov_{i,t}) = & \alpha_1 ICS_{i,t-1} + \alpha_2 Size_{i,t-1} + \alpha_3 ROA_{i,t-1} + \alpha_4 Rated_{i,t-1} + \alpha_5 Intang_{i,t-1} \\ & + \alpha_6 Lev_{i,t-1} + \alpha_7 Current_{i,t-1} + \alpha_8 B2M_{i,t-1} + \alpha_9 Z_Score_{i,t-1} + \alpha_{10} Big4_{i,t-1} \\ & + \alpha_{11} Fin_Cov_{i,t-1} + \alpha_{12} Perf_Prc_{i,t-1} + \alpha_{13} Loan_Sz_{i,t-1} + \alpha_{14} Maturity_{i,t-1} \\ & + \alpha_{15} Syn_Sz_{i,t-1} + \alpha_{16} Revolver_{i,t-1} + \alpha_{17} Secured_{i,t-1} + \alpha_{18} Spread_{i,t-1} \\ & + \alpha_{19} Rel_Lending_{i,t-1} + IndFE + YrFE \\ & + LoanPurposeFE \end{aligned} \quad (1)$$

where i indicates borrower firm and t indicates year. $IC_Cov_{i,t}$ represents lenders' demand for internal control-related private information. This is an indicator variable that equals one when debt contracts require borrowers to submit written communications received from auditors that discuss internal control deficiencies or possible improvement areas, and zero otherwise. $ICS_{i,t-1}$ represents internal control status of the borrower firm in the year prior to loan origination or amendment. I capture internal control status of the borrower firm in two different ways – (i) SOX404 disclosure of material weaknesses ($ICW_{i,t-1}$) and (ii) filing of restatements for prior period financial statements where the cause of misstatement is internal control deficiency ($RSTM_{i,t-1}$). In first scenario, $ICW_{i,t-1}$ is an indicator variable that equals one if the borrower firm discloses internal control weakness under Section 404 of the Sarbanes-Oxley Act and zero otherwise. In second scenario, $RSTM_{i,t-1}$ is an indicator variable that equals one if the borrower firm files restatements of prior period financial statements where the cause of misstatement is internal control deficiency and zero otherwise. To capture lender's higher use of accounting information, I use two measures following Baylis et al. (2017) – the number of financial

covenants (*Fin_Cov*) and accounting-based performance-pricing provisions (*Perf_Prc*) in debt contracts. *Fin_Cov* is the number of financial covenants used in the debt contract. *Perf_Prc* is an indicator variable that equals one if the debt contract includes a performance-pricing provision based on accounting data and zero otherwise. To capture lenders' exposition to greater risk, I use two measures following Carrizosa and Ryan (2017) – loan size (*Loan_Sz*) and maturity (*Maturity*). I follow prior literature to select controls related to borrower characteristics and loan characteristics. Definitions of all variables are provided in Appendix B.

To examine the moderating effect of relationship lending in the relation between lenders' demand for internal control-related private information and borrower firms' prior period internal control status (hypothesis 3), I use an augmented version of equation (1) with the inclusion of an interaction term of relationship lending and the variable representing internal control weakness of the borrower firm.

To examine the association between lenders' demand for internal control-related private information and the remediation of firms' material weaknesses (hypothesis 4a), I estimate the following logistic regression,

$$\begin{aligned} \Pr(REMEDIATE_{i,t+n}) \\ = IC_Cov_{i,t+1} + (Changes\ in\ Firm\ Characteristics)_{t+n} + IndFE \\ + YrFE \end{aligned} \quad (2)$$

which compares each ICW firm to itself by measuring the change in a firm's material weakness after lenders' inclusion of internal control covenant in the debt contract. In model (2), *REMEDIATE* captures the changes in a firm's material weakness, which is an indicator variable that equals one if the borrower firm has remediated its internal control weakness in $t + n$ period, otherwise zero. Here, t represents the year when the borrower firm has weak internal control, n

represents the subsequent year (year 1 and 2), when the status of weak internal control has improved or not. I estimate this regression for $t + 1$ and $t + 2$ periods. To design this model, I follow Johnstone et al. (2011), Goh (2009), Dhaliwal et al. (2011), and Lisic, Neal, Zhang, and Zhang (2016). Firm characteristics that I consider for this model are firm size (*Mve*), financial health (*Loss*), complexity of the firm – foreign operations (*ForOp*), number of business segments (*Seg*), and restructuring of the firm (*Rst*), rapid growth of the firm – sales growth (*SaleGr*) and acquisitions (*Acqn*), firm’s audit quality – taking audit services from one of the big 4 audit firms (*Big4*) and audit fee (*Afee*), industry-adjusted ROA (*Ind_roa*), level of inventory (*Invt*), and level of receivables (*Recvl*). Definitions of all the variables are provided in Appendix B.

To examine the timeliness of remediation (hypothesis 4b), I use ordered logistic regression and Cox (1972) proportional hazard model. First, I estimate the following ordered logistic regression,

$$\begin{aligned} \text{Pr}(\text{REMEDIED}) \\ = IC_Cov_{i,t+1} + (\text{Changes in Firm Characteristics})_{tTo t+n} + IndFE \\ + YrFE \end{aligned} \quad (3)$$

where, *REMEDIED* is an indicator variable that equals 2 (*fast remediators*) if the borrower firm has remediated its internal control weakness in $t + 1$ periods, *REMEDIED* equals 1 (*slow remediators*) if the firm has remediated its internal control weakness in $t + 2$ period, and *REMEDIED* equals 0 (*non-remediators*) if the firm has failed to remediate its material weakness in the first and second year. I follow Goh (2009) to design this model. Rest of the variables are same as in equation (2).

Next, I use a hazard model specification to estimate association between lenders' demand for internal control covenant and the timeliness of remediation. In particular, I use Cox (1972) proportional hazard model. The observation for each company starts with its disclosing material weakness in internal controls and ends when the firm remediates weaknesses. If the firm does not remediate ICW, the observation ends in the last available firm-year. The duration of interest is the number of years that elapse between first ICW year and remediation year. I estimate the following hazard model:

$$h_i(T) = h_0(T) + \alpha_1 IC_Cov + \alpha_2 Mve + \alpha_3 Loss + \alpha_4 ForOp + \alpha_5 Seg + \alpha_6 Rst + \alpha_7 SaleGr + \alpha_8 Acqn + \alpha_9 Big4 + \alpha_{10} Invt + \alpha_{11} Recvl + \alpha_{12} Ind_Roa + \alpha_{13} Afee \quad (4)$$

where $h_i(T)$ is the probability that an ICW firm i remediates its weaknesses at T , given that the firm has survived up to T . $h_0(T)$ is the underlying hazard rate corresponding to the probability of remediating ICW when all the explanatory variables are set to 0. Here, the dependent variable is the number of years a firm takes to remediate its ICW. If a firm does not remediate ICW, the dependent variable for that firm is calculated as the number of years the firm remains as ICW firm in the sample. For the control variables, I consider the last year the firm remains as ICW firm before remediation. If the firm does not remediate, I consider the last year available for that firm in the sample.

4.2 Data and Sample Construction

To conduct the analyses on lenders' monitoring of loan contracts by demanding internal control-related private information, I create a novel dataset of loan contracts (both new and amended) from SEC filings (8-Ks, 10-Qs, and 10-Ks) using Python coding. I identify clauses related to lenders' demand for internal control-related private information in the affirmative

covenant sections of the debt contracts. First, I read several randomly selected debt contracts to identify how lenders ask for internal control-related private information in debt contracts. I find that the clauses in which lenders ask borrowers to provide them with internal control-related non-public communication received from auditors include words “management letter” and “comment letter”. I use Python coding to search for these words to identify the presence of lenders’ demand for internal control-related private information in debt contracts. Following, Carrizosa and Ryan (2017), I consider this information as private because this information is useful for the lender to understand the internal control setup of the borrower firm on a timely basis and this information is not publicly available when provided to lenders.

For my samples, I consider both new and amended loan contracts that originated between 2005 and 2016 and SOX404 disclosure available till 2018. For loan contracts sample, I consider 2005 as the first year because SOX404 data is available from 2004 and I consider loan contracts that originated or are amended in the year following the year of firms’ disclosure of internal control status under SOX404. As I analyze ICW remediation in year 1 and 2, I use SOX404 disclosure data till 2018 to analyze the association of loan contracts that originated on or before 2016. I develop Python coding following the algorithm of Nini et al. (2009) to search for loan contracts in 8-K, 10-K, and 10-Q filings in SEC EDGAR for my sample period.⁷ Once the search program finds any loan contract (both new and amended), it next searches for the words “management letter” and “comment letter” in the loan contracts. I initially identify 11,064 loan

⁷ Nini et al. (2009) use text-search programs to search for loan contracts from all SEC filings (10-K, 10-Q, and 8-K). They search for 10 terms in capital letters from these filings: “credit agreement”, “loan agreement”, “credit facility”, “loan and security agreement”, “loan & security agreement”, “revolving credit”, “financing and security agreement”, “financing & security agreement”, “credit and guarantee agreement”, “credit & guarantee agreement”. Once the search program finds one of these terms, it further looks for “table of contents” within next 60 lines after the initial search term. Some recent studies (Carrizosa and Ryan 2017; Baylis et al. 2017) also follow the same procedure to search for loan contracts from SEC EDGAR.

contracts.⁸ I next merge these loan contracts with the Dealscan database. I use the Compustat-Dealscan link file provided by Chava and Roberts (2008) in this merging process. I collect loan characteristics data from the Dealscan database, SOX404 disclosure data and restatement data from the Audit Analytics database, and borrower characteristics data from the Compustat. I exclude financial and utility firms from my final sample. After merging loan contracts data with Audit Analytics, Compustat, and Dealscan, and excluding financial and utility firms and deleting observations with missing values, my final sample has 5,825 loan contracts, of which 383 are with ICW firms (7% of full sample) and only 45 are with RSTM firms (1% of full sample).

Since number of observations for treatment firms is very low, the results of my analyses may suffer from selection bias. To alleviate this concern, I create two matched samples for weak internal control (*ICW*) firms and restatement (*RSTM*) firms using propensity score matching (PSM). I match each ICW firm with a non-ICW firm and each RSTM firm with a non-RSTM firm, without replacement. I estimate logit models with ICW and RSTM as dependent variables and firm characteristics as independent variables, and then use the estimated model parameters to calculate propensity scores for each firm. This results in 275 ICW pairs (550 observations) and 42 RSTM pairs (84 observations).

To examine the relationship between lenders' demand for private information related to internal controls and the remediation of borrower firms' material weaknesses in internal controls, I create a sample of firms that have disclosed material weakness in internal controls under Section 404 of SOX. I collect this data from the Audit Analytics. Then I merge this dataset with Compustat, Dealscan, and Loan Contracts (collected through Python coding). I delete

⁸ To reduce search time, I initially screen out files (8-K, 10-Q/K) of the firms, which don't intersect with Audit Analytics, Dealscan, & Compustat.

observations that have missing values related to changes in firm characteristics and internal control status. To avoid the confounding effect of loans, I also delete loan observations, for which lenders didn't demand internal control-related private information. My final samples for this section have 3,153 firm-year observations for remediation in year 1 and 2,374 firm-year observations for remediation in year 2, respectively. I exclude financial and utility firms from all samples and winsorize all continuous variables at 1% level.

5. Results

5.1 Lenders' Demand for Internal Control-Related Private Information

Table 1 panel A presents summary statistics of the sample of debt contracts that I use to examine lenders' demand for internal control-related private information and its relationship with borrower firms' internal control weaknesses, other firm characteristics, and loan characteristics. In 37% of the loan contracts, lenders ask borrowers to provide management

TABLE 1
Panel A: Summary Statistics of The Loan Contracts Sample

Category	Variable	N	Mean	Std	1st Quartile	Median	3rd Quartile
Internal Control Covenant	<i>IC_Cov</i>	5825	0.37	0.48	0.00	0.00	1.00
Borrower Characteristics	<i>ICW</i>	5825	0.07	0.25	0.00	0.00	0.00
	<i>RSTM</i>	5825	0.01	0.09	0.00	0.00	0.00
	<i>Size</i>	5825	5098.00	10115.49	613.94	1674.92	4669.00
	<i>ROA</i>	5825	0.03	0.09	0.01	0.05	0.08
	<i>Rated</i>	5825	0.55	0.50	0.00	1.00	1.00
	<i>Intang</i>	5825	0.25	0.22	0.06	0.21	0.40
	<i>Lev</i>	5825	0.28	0.21	0.12	0.25	0.39
	<i>Current</i>	5825	1.98	1.13	1.24	1.73	2.43
	<i>B2M</i>	5825	0.39	0.93	0.24	0.41	0.65
	<i>Z_score</i>	5825	3.48	2.73	1.85	2.97	4.46
Loan Characteristics	<i>Big4</i>	5825	0.89	0.31	1.00	1.00	1.00
	<i>Fin_cov</i>	5825	1.57	1.12	1.00	2.00	2.00
	<i>Perf_Prc</i>	5825	0.36	0.48	0.00	0.00	1.00
	<i>Loan_Sz</i>	5825	511.37	699.68	100.00	250.00	600.00
	<i>Maturity</i>	5825	54.22	17.05	48.00	60.00	60.00
	<i>Syn_Sz</i>	5825	9.12	7.24	4.00	7.00	12.00
	<i>Revolver</i>	5825	0.63	0.48	0.00	1.00	1.00
	<i>Secured</i>	5825	0.58	0.49	0.00	1.00	1.00
	<i>Spread</i>	5825	217.15	143.90	125.00	175.00	275.00
	<i>Rel_Lending</i>	5825	0.54	0.50	0.00	1.00	1.00

This table presents summary statistics of the loan contracts sample. All variables are defined in Appendix B.

letters. Firms of 7% of the loan contracts have material weaknesses in internal controls and firms of 1% of the loan contracts restated their prior period financial statements; 36% loan contracts have performance-pricing provisions based on accounting information and average maturity of the loans is 4.5 years (54 months).

Table 1 panel B shows distribution of the loans over the sample period, mean of internal control covenant by year, and distribution of unique firms by year. Consistent with the finding of Carrizosa and Ryan (2017), I find that lenders demand more private information related to

TABLE 1
Panel B: Distributions of Loan Contracts,
Mean of Internal Control Covenant Measure
(IC_Cov), and Number of Unique Firms by
Year

Year	Loan Contracts (N)	Mean (IC_Cov)
2005	416	0.341
2006	577	0.371
2007	646	0.351
2008	355	0.423
2009	308	0.416
2010	483	0.439
2011	658	0.397
2012	532	0.338
2013	482	0.384
2014	479	0.334
2015	491	0.342
2016	398	0.349
Full Sample	5,825	0.372

This table presents distribution of loan contracts and mean of internal control covenant (*IC_Cov*) measure by year. The total number of unique firms for the full loan contracts sample is 1,748. *IC_Cov* is defined in Appendix B.

internal controls during bad economic times (2008 - 2010). It also shows that loans are not concentrated in a single year or over few years. Table 1 panel C shows distribution of the loans by industry. It shows that the sample is fairly distributed across industries.

TABLE 1		
Panel C: Distributions of loan contracts and mean of internal control covenant measure (IC_Cov) by industry		
Year	N	Mean
<i>Consumer Durables - Cars, TVs, Furniture, Household Appliances</i>	210	0.286
<i>Consumer Non-Durables - Food, Tobacco, Textiles, Apparel, Leather, Toys</i>	475	0.347
<i>Manufacturing</i>	957	0.372
<i>Oil, Gas, and Coal Extraction and Products</i>	372	0.285
<i>Chemicals and Allied Products</i>	276	0.370
<i>Business Equipment - Computers, Software, and Electronic Equipment</i>	945	0.325
<i>Telephone and Television Transmission</i>	299	0.308
<i>Wholesale, Retail, and Some Services</i>	894	0.430
<i>Healthcare, Medical Equipment, and Drugs</i>	474	0.411
<i>Other</i>	923	0.432
Full Sample	5,825	0.372
This table presents distribution of loan contracts and mean of internal control covenant (IC_Cov) measure by Fama-French 12 industries excluding financial firms and utilities. The sample period is 2005 to 2016. IC_Cov is defined in Appendix B.		

Table 2 presents correlation matrices. The pairwise correlations of most of the explanatory variables are below 0.50. The only two variables that have high correlation are loan size (*Loan_Sz*) and the firm size (*Size*). However, variance inflation factor (VIF) is less than 5 for all the variables.

TABLE 2
Pearson Correlation Coefficients - Loan Contracts Sample

SL	Variable	1	2	3	4	5	6	7
1	<i>IC_Cov</i>	1						
2	<i>ICW</i>	0.0668	1					
3	<i>RSTM</i>	0.0457	0.127	1				
4	<i>Size</i>	-0.240	-0.0788	-0.0184	1			
5	<i>ROA</i>	-				1		
6	<i>Rated</i>	0.0395	-0.160	-0.0178	0.0365		1	
7	<i>Intang</i>	-0.216	-0.0630	-0.0387	0.345	0.00290		1
8	<i>Lev</i>	-						
9	<i>Current</i>	0.0455	0.0351	-0.00800	0.0448	-0.230	0.361	0.136
10	<i>B2M</i>	0.106	-0.0409	-0.0128	-0.185	0.138	-0.207	-0.113
11	<i>Z_score</i>	-						
12	<i>Big4</i>	0.0372	-0.0857	-0.0305	-0.00860	0.156	0.0241	0.00160
13	<i>Fin_cov</i>	0.0469	-0.0975	-0.0177	-0.136	0.486	-0.292	-0.105
14	<i>Perf_Prc</i>	-0.128	-0.0744	-0.00130	0.152	0.118	0.260	0.0364
15	<i>Loan_Sz</i>	0.120	0.0678	0.0424	-0.183	0.0215	-0.108	0.0279
16	<i>Maturity</i>	0.134	-0.00510	-0.00520	-0.206	0.132	-0.226	0.0797
17	<i>Syn_Sz</i>	-0.227	-0.0979	-0.0238	0.694	0.110	0.350	0.0934
18	<i>Revolver</i>	0.0562	-0.0236	-0.000600	-0.143	0.0834	0.0544	0.105
19	<i>Secured</i>	-0.150	-0.123	-0.0199	0.350	0.144	0.346	0.143
20	<i>Spread</i>	-						
21	<i>Rel_Lending</i>	0.0368	-0.0185	0.0145	-0.0594	0.0494	0.0868	-0.113
		0.190	0.125	0.0148	-0.288	-0.239	-0.111	-0.0311
		-						
		0.120	0.115	0.0129	-0.193	-0.416	0.0937	-0.0419
		-						
		0.0870	-0.0700	-0.0452	0.128	0.0456	0.165	0.0461

SL	Variable	8	9	10	11	12	13	14
8	<i>Lev</i>	1						
9	<i>Current</i>	-0.310	1					
10	<i>B2M</i>	-0.235	0.135	1				
11	<i>Z_score</i>	-0.555	0.461	0.0782	1			
12	<i>Big4</i>	0.0167	-0.0483	0.00120	0.0203	1		
13	<i>Fin_cov</i>	-0.0281	0.0192	0.0334	0.0572	-0.0629	1	
14	<i>Perf_Prc</i>	-0.123	0.0885	0.0490	0.172	0.0135	0.425	1
15	<i>Loan_Sz</i>	0.0758	-0.153	-0.0426	-0.0701	0.184	-0.161	-0.203
16	<i>Maturity</i>	0.103	0.00330	0.00770	-0.0262	0.0696	0.0536	0.103
17	<i>Syn_Sz</i>	0.0364	-0.160	0.0234	-0.0525	0.244	0.0207	0.0458
18	<i>Revolver</i>	-0.167	0.0723	0.101	0.104	-0.0170	0.00450	0.0942
19	<i>Secured</i>	0.198	0.0229	-0.0336	-0.180	-0.168	0.283	0.162
20	<i>Spread</i>	0.252	-0.0575	-0.118	-0.301	-0.178	0.0354	-0.111

21	<i>Rel_Lending</i>	0.0768	-0.0701	0.000500	-0.0663	0.125	-0.0407	-0.0114
SL	Variable	15	16	17	18	19	20	21
15	<i>Loan_Sz</i>	1						
16	<i>Maturity</i>	-0.0364	1					
17	<i>Syn_Sz</i>	0.446	0.126	1				
18	<i>Revolver</i>	-0.0672	0.0277	0.0200	1			
19	<i>Secured</i>	-0.260	0.154	-0.210	-0.0688	1		
20	<i>Spread</i>	-0.204	-0.0331	-0.279	-0.273	0.410	1	
21	<i>Rel_Lending</i>	0.150	0.0474	0.219	0.0108	-0.0907	-0.0509	1

This table presents Pearson correlation coefficients of all variables under loan contracts sample. This sample is used to examine lenders' demand for internal control-related private information from the borrowers. All variables are defined in Appendix B.

Table 3 panel A provides results of the univariate analysis of the loan contracts sample when the sample is divided into groups – ICW and non-ICW firms. Lenders include an internal control covenant in almost half (49.3%) of the loan contracts with firms having weak internal controls, whereas for firms having effective internal controls, lenders include an internal control covenant in 36.2% of the loan contracts. This difference is statistically significant.

TABLE 3
Univariate Results - Loan Contracts Sample
Panel A: By Firms' Having Internal Control Weakness (ICW)

	Internal Control Ineffective (ICW) Firms (1)			Internal Control Effective (Non-ICW) Firms (2)			Difference (1) - (2)	
Variable	Mean	Median	N	Mean	Median	N	Mean (<i>t-value</i>)	Median (<i>Z-value</i>)
<i>IC_Cov</i>	0.493	0.000	383	0.363	0.000	5442	5.106***	5.095***
<i>Size</i>	2094.840	834.314	383	5309.350	1750.750	5442	-14.736***	-8.852***
<i>ROA</i>	-0.023	0.004	383	0.038	0.048	5442	-9.888***	-13.567***
<i>Rated</i>	0.433	0.000	383	0.560	1.000	5442	-4.820***	-4.810***
<i>Intang</i>	0.217	0.148	383	0.257	0.216	5442	-3.484***	-3.834***
<i>Lev</i>	0.307	0.268	383	0.277	0.246	5442	2.377***	2.039**
<i>Current</i>	1.807	1.543	383	1.993	1.741	5442	-3.122***	-4.174***
<i>B2M</i>	0.090	0.408	383	0.411	0.411	5442	-3.562***	0.201
<i>Z_score</i>	2.477	2.147	383	3.550	3.018	5442	-7.475***	-8.509***
<i>Big4</i>	0.807	1.000	383	0.899	1.000	5442	-4.498***	-5.681***
<i>Fin_cov</i>	1.859	2.000	383	1.552	2.000	5442	4.825***	4.733***
<i>Perf_Prc</i>	0.352	0.000	383	0.362	0.000	5442	-0.389	-0.389
<i>Loan_Sz</i>	253.060	130.000	383	529.554	275.000	5442	-14.474***	-9.853***
<i>Maturity</i>	52.702	60.000	383	54.325	60.000	5442	-1.596	-1.117
<i>Syn_Sz</i>	5.781	5.000	383	9.358	8.000	5442	-14.075***	-10.155***
<i>Revolver</i>	0.598	1.000	383	0.634	1.000	5442	-1.414	-1.413
<i>Secured</i>	0.817	1.000	383	0.568	1.000	5442	11.944***	9.572***
<i>Spread</i>	279.399	225.000	383	212.771	175.000	5442	7.210***	8.326***
<i>Rel_Lending</i>	0.413	0.000	383	0.553	1.000	5442	-5.351***	-5.338***

This table represents the differences of internal control covenant, other firm characteristics, and loan characteristics between two subgroups. Observations are divided between two subgroups based on whether the borrower firm has internal control weakness. The mean differences between groups are based on *t*-value and median differences are based on *Z*-value (Wilcoxon signed-rank test). The superscripts ***, **, and * represent two-tailed significance levels at 1%, 5%, and 10% respectively. All variables are defined in Appendix B.

Table 3 panel B provides results of the univariate analysis of the loan contracts sample when the sample is divided into groups – Restatement and non-Restatement firms. Lenders include an internal control covenant in 62.2% of the loan contracts with firms restating prior

TABLE 3
Univariate Results - Loan Contracts Sample
Panel B: By Restatement vs. Non-Restatement Firms

Variable	Restatement Firms (1)			Non-Restatement Firms (2)			Difference (1) - (2)	
	Mean	Median	N	Mean	Median	N	Mean (<i>t-value</i>)	Median (<i>Z-value</i>)
<i>IC_Cov</i>	0.622	1.000	45	0.370	0.000	5780	3.492***	3.488***
<i>Size</i>	2988.830	1022.080	45	5114.420	1680.450	5780	-2.33**	-2.234**
<i>ROA</i>	0.015	0.028	45	0.034	0.046	5780	-1.359	-2.571***
<i>Rated</i>	0.333	0.000	45	0.553	1.000	5780	-2.957***	-2.955***
<i>Intang</i>	0.208	0.171	45	0.255	0.211	5780	-1.438	-1.138
<i>Lev</i>	0.260	0.231	45	0.279	0.246	5780	-.608	-1.055
<i>Current</i>	1.817	1.676	45	1.982	1.734	5780	-.976	-.710
<i>B2M</i>	0.069	0.412	45	0.393	0.410	5780	-1.25	-0.461
<i>Z_score</i>	2.933	2.212	45	3.484	2.970	5780	-1.351	-1.955**
<i>Big4</i>	0.889	1.000	45	0.893	1.000	5780	-0.098	-0.098
<i>Fin_cov</i>	2.111	2.000	45	1.568	2.000	5780	3.237***	3.330***
<i>Perf_Prc</i>	0.333	0.000	45	0.362	0.000	5780	-0.398	-0.398
<i>Loan_Sz</i>	322.493	200.000	45	512.844	250.000	5780	-3.706***	-1.591
<i>Maturity</i>	54.111	60.000	45	54.219	60.000	5780	-0.042	-0.548
<i>Syn_Sz</i>	7.489	7.000	45	9.136	7.000	5780	-1.521	-1.247
<i>Revolver</i>	0.711	1.000	45	0.631	1.000	5780	1.11	1.11
<i>Secured</i>	0.667	1.000	45	0.584	1.000	5780	1.127	1.127
<i>Spread</i>	238.167	200.000	45	216.988	175.000	5780	0.983	1.272
<i>Rel_Lending</i>	0.289	0.000	45	0.546	1.000	5780	-3.450***	-3.447***

This table represents the differences of internal control covenant, other firm characteristics, and loan characteristics between two subgroups. Observations are divided between two subgroups based on whether the borrower firm has restated financial statements due to internal control deficiencies. The mean differences between groups are based on *t*-value and median differences are based on *Z*-value (Wilcoxon signed-rank test). The superscripts ***, **, and * represent two-tailed significance levels at 1%, 5%, and 10% respectively. All variables are defined in Appendix B.

period financial statements, whereas for non-restating firms, lenders include an internal control covenant in 37.1% of the loan contracts. This difference is statistically significant.

Table 4 presents results of the logistic regression based on full sample and propensity score matched samples on the relation between lenders' demand for internal control-related private information and borrower firms' ineffective internal controls as captured by SOX404 disclosure (*ICW*) and restatement of prior period financial statements (*RSTM*), other firm characteristics, and loan characteristics. Consistent with prediction, I find that lenders are more likely to demand internal control-related private information from firms having internal control weaknesses. I also find that lenders are more likely to include internal control covenant when lenders use performance-pricing provisions based on accounting information and when the loan maturity is high. These findings are consistent with my 2nd hypothesis. However, I don't find a significant relation (though the direction is as predicted) between the number of financial covenants and the inclusion of internal control covenant. The findings from multivariate analyses, overall, support my predictions in hypotheses 1 and 2.

TABLE 4
Relationship Between Lenders' Demand for Internal Control-Related Private Information and Firms' Prior Period Internal Control Status

Dependent Variable = Internal Control Covenant (*IC_Cov*)

	<u>Full Sample</u>		<u>PSM Sample</u>	
	(1)	(2)	(3)	(4)
<i>ICW</i>	0.364** (2.06)		0.114* (1.90)	
<i>RSTM</i>		0.870* (1.82)		0.566** (2.16)
Borrower characteristics				
<i>Size</i>	-0.452*** (-6.48)	-0.449*** (-6.42)	-0.007 (-0.18)	-0.063 (-0.26)
<i>ROA</i>	0.413 (0.75)	0.361 (0.65)	-0.274 (-0.75)	-1.620 (-1.53)
<i>Rated</i>	-0.238 (-1.63)	-0.236 (-1.62)	-0.172** (-2.32)	0.735** (2.20)
<i>Intang</i>	0.369 (1.06)	0.362 (1.04)	0.089 (0.49)	2.199*** (4.47)
<i>Lev</i>	-0.187 (-0.54)	-0.190 (-0.55)	0.424** (2.15)	-0.155 (-0.22)
<i>Current</i>	0.093* (1.79)	0.093* (1.79)	0.048 (1.49)	0.103 (1.36)
<i>B2M</i>	0.045 (0.72)	0.042 (0.66)	0.018 (0.61)	0.224 (0.74)
<i>Z_score</i>	-0.025 (-0.92)	-0.027 (-0.99)	0.035* (1.94)	0.053 (1.04)
<i>Big4</i>	0.009 (0.05)	-0.007 (-0.04)	-0.113 (-1.34)	0.518*** (2.86)
Loan characteristics				
<i>Fin_cov</i>	0.051 (1.05)	0.049 (1.02)	-0.053 (-0.89)	0.056 (0.33)
<i>Perf_Prc</i>	0.188* (1.84)	0.190* (1.86)	0.005*** (2.60)	0.003 (0.53)
<i>Loan_Sz</i>	0.017 (0.34)	0.014 (0.28)	0.052 (1.00)	-0.549*** (-2.68)
<i>Maturity</i>	0.006** (2.10)	0.006** (2.08)	0.032 (1.18)	0.056 (0.50)
<i>Syn_Sz</i>	0.170* (1.86)	0.163* (1.79)	-0.005 (-0.19)	0.038 (0.53)

<i>Revolver</i>	0.083 (1.27)	0.083 (1.29)	0.004 (0.08)	-0.120 (-1.34)
<i>Secured</i>	0.338*** (2.69)	0.346*** (2.75)	0.096 (1.52)	-0.095 (-0.39)
<i>Spread</i>	0.001*** (2.87)	0.001*** (3.02)	0.000* (1.82)	-0.001** (-2.20)
<i>Rel_Lending</i>	-0.104 (-1.16)	-0.095 (-1.05)	0.015 (0.26)	0.805*** (3.85)
<i>Intercept</i>	4.025*** (3.27)	4.057*** (3.28)	-0.631 (-1.01)	1.956 (1.27)
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Loan Purpose FE	Yes	Yes	Yes	Yes
Observations	5697	5697	550	84
Adjusted R-Squared	0.141	0.140	0.127	0.798

This table presents logistic regression results on the relation between lenders' demand for internal control-related private information (*IC_Cov*) and firms' internal control status, firm characteristics, and loan characteristics (*Equation 1: Hypothesis 1 & 2*). Internal control status is captured by firms' prior period disclosure of internal control weakness and restatements related to internal controls. Column 1 & 2 present results based on the full sample (full sample has 5825 observations, but I lose some observations due to fixed effect consideration) and columns 3 & 4 present results based on propensity score matched samples. *t*-statistics are in parentheses. The superscripts ***, **, and * represent significance level at 1%, 5%, and 10% level respectively. Standard errors are clustered at firm level. All variables are defined in Appendix B.

Table 5 presents results of the moderating effect of relationship lending in lenders' demand for internal control-related private information. Here, I find that the interaction terms representing relationship lending and prior-period weak internal controls are having insignificant relations with internal control covenant. This finding suggests that when lenders have prior lending relationships with the borrowers, lenders' demand for internal control-related private information mitigates. This finding is consistent with hypothesis 3.

TABLE 5

**Effect of Relationship Lenders on The Relation Between Lenders'
Demand for Internal Control-Related Private Information and Borrower
Firms' Prior Period Internal Control Status**

Dependent Variable = Internal Control Covenant (*IC_Cov*)

	(1)	(2)	(3)	(4)
<i>ICW</i>	0.361** (2.04)	0.378* (1.66)		
<i>RSTM</i>			0.887* (1.85)	0.760 (1.27)
<i>Rel_Lending</i>		-0.101 (-1.09)		-0.097 (-1.08)
<i>ICW*Rel_Lending</i>		-0.033 (-0.10)		
<i>RSTM*Rel_Lending</i>				0.391 (0.42)
Borrower characteristics				
<i>Size</i>	-0.455*** (-6.53)	-0.452*** (-6.50)	-0.452*** (-6.47)	-0.449*** (-6.42)
<i>ROA</i>	0.417 (0.76)	0.413 (0.75)	0.365 (0.66)	0.358 (0.65)
<i>Rated</i>	-0.237 (-1.63)	-0.237 (-1.63)	-0.236 (-1.62)	-0.237 (-1.62)
<i>Intang</i>	0.364 (1.05)	0.369 (1.06)	0.358 (1.03)	0.363 (1.04)
<i>Lev</i>	-0.206 (-0.60)	-0.187 (-0.54)	-0.207 (-0.60)	-0.186 (-0.54)
<i>Current</i>	0.094* (1.80)	0.093* (1.79)	0.094* (1.80)	0.093* (1.79)
<i>B2M</i>	0.045 (0.72)	0.045 (0.72)	0.042 (0.67)	0.042 (0.66)
<i>Z_score</i>	-0.025 (-0.94)	-0.025 (-0.92)	-0.027 (-1.00)	-0.026 (-0.98)
<i>Big4</i>	0.007 (0.04)	0.009 (0.05)	-0.009 (-0.05)	-0.008 (-0.04)
Loan characteristics				
<i>Fin_cov</i>	0.052 (1.08)	0.051 (1.05)	0.050 (1.04)	0.049 (1.02)
<i>Perf_Prc</i>	0.185* (1.08)	0.188* (1.05)	0.187* (1.04)	0.189* (1.02)

	(1.82)	(1.84)	(1.84)	(1.86)
<i>Loan_Sz</i>	0.012	0.017	0.010	0.014
	(0.24)	(0.34)	(0.20)	(0.28)
<i>Maturity</i>	0.006**	0.006**	0.006**	0.006**
	(2.07)	(2.10)	(2.05)	(2.08)
<i>Syn_Sz</i>	0.161*	0.169*	0.156*	0.164*
	(1.78)	(1.86)	(1.72)	(1.79)
<i>Revolver</i>	0.084	0.083	0.084	0.083
	(1.29)	(1.27)	(1.30)	(1.29)
<i>Secured</i>	0.339***	0.338***	0.346***	0.345***
	(2.70)	(2.69)	(2.76)	(2.75)
<i>Spread</i>	0.001***	0.001***	0.001***	0.001***
	(2.88)	(2.87)	(3.03)	(3.02)
<i>Intercept</i>	4.172***	4.026***	4.191***	4.060***
	(3.40)	(3.27)	(3.39)	(3.28)
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Loan Purpose FE	Yes	Yes	Yes	Yes
Observations	5697	5697	5697	5697
Adjusted R-Squared	0.14	0.141	0.14	0.14

This table presents logistic regression results on the effect of relationship lenders on the relation between lenders' demand for internal control-related private information (*IC_Cov*) and firms' internal control status (*Hypothesis 3*). I use an augmented version of equation 1 incorporating relationship lending (*Rel_Lending*) and interaction of relationship lending with internal control status. Internal control status is captured by firms' prior-period disclosure of internal control weakness and restatements related to internal controls. *t*-statistics are in parentheses. The superscripts ***, **, and * represent significance level at 1%, 5%, and 10% level respectively. Standard errors are clustered at firm level. All variables are defined in Appendix B.

5.2 The Relationship Between Lenders' Demand for Internal Control Related Private Information and Remediation of Borrower Firms' Weak Internal Controls

Table 6 panel A presents results of the univariate analysis of the remediation samples. This analysis shows that firms with internal control covenant remediate more than firms without internal control covenant, 58.9% versus 35.2% in the first year and 80.9% versus 46.2% within two years, respectively. Overall, these univariate findings provide initial confirmation that

lenders' demand for internal control-related private information has a positive association with the remediation process of borrower firms' weak internal controls.

TABLE 6
Panel A: Univariate Results - Remediation Samples

Variable	Private-Loan Firms (1)			Non-Loan Firms (2)			Difference (1) - (2)	
	Mean	Median	N	Mean	Median	N	Mean (<i>t-value</i>)	Median (<i>Z-value</i>)
<i>REMEDiate</i> (<i>t+1</i>)	0.589	1.000	163	0.352	0.000	2990	6.172***	6.135***
<i>REMEDiate</i> (<i>t+2</i>)	0.809	1.000	141	0.462	0.000	2233	8.09***	7.980***

This table represents the differences in remediation between two subgroups for *t+1* and *t+2* periods. Observations are divided between two subgroups - private loan firms and non-loan firms. Private loan firms are the firms for which private lenders demanded internal control-related private information. The mean differences between groups are based on t-value and median differences are based on Z-value (Wilcoxon signed-rank test). The superscripts ***, **, and * represent two-tailed significance levels at 1%, 5%, and 10% respectively. *REMEDiate* is defined in Appendix B.

Table 6 Panel B presents distribution of remediation sample by timeliness of remediation. It shows that 61% of the private-loan firms with internal control covenant, remediate within first year whereas only 39% of the non-loan firms remediate within first year. Here private-loan firms sample includes only those firms for which lenders demanded internal control covenant in debt contracts. When considered within two years, for the private-loan and non-loan samples 84% and 51% firms remediate, respectively. On the other hand, around 47% firms of the full sample don't remediate within two years, whereas only 16% of the firms with private loans don't remediate within two years.

TABLE 6

Panel B: Distribution of Observations by Timeliness of Remediation

	Full Sample			Private-Loan Firms			Non-Loan Firms		
	N	%	Cumul. (%)	N	%	Cumul. (%)	N	%	Cumul. (%)
<i>REMEDIED in t+1</i>	931	39%	39%	86	61%	61%	845	38%	38%
<i>REMEDIED in t+2</i>	335	14%	53%	32	23%	84%	303	14%	51%
<i>Not REMEDIED</i>	1,108	47%	100%	23	16%	100%	1,085	49%	100%
	2,374	100%		141	100%		2,233	100%	

This table represents distribution of observations by timeliness of remediation for full sample, firms for which lenders demanded internal control-related private information, and firms without any private loan.

Column 1 & 2 of Table 7 present results of the logistic regression on the firms' probability of remediating existing material weaknesses within 1st year and column 3 and 4 present results for within 2nd year, respectively when private lenders demand internal control-related private information. The results show that borrower firms are more likely to remediate their weak internal controls within 1st year when lenders include internal control covenant in debt contracts. This relation is even stronger when considered remediation over the two-year period providing evidence of the association of internal control covenant in debt contracts and borrowers firms' increased effort to improve their weak internal controls. These findings are consistent with my prediction in hypothesis 4a.

TABLE 7
Relationship Between Remediation of Material Weakness and Internal Control
Covenant (IC_Cov).

	Dependent Variable = REMEDIATE			
	<i>t+1</i> Period		<i>t+2</i> Period	
	(1)	(2)	(1)	(2)
<i>IC_Cov</i>	0.951*** (5.74)	0.690*** (3.38)	1.558*** (7.00)	1.438*** (5.60)
ΔMve	0.085** (2.28)	0.134*** (3.44)	0.151*** (4.07)	0.207*** (4.76)
$\Delta Loss$	-0.101 (-1.16)	-0.124 (-1.38)	-0.309*** (-3.49)	-0.381*** (-4.07)
$\Delta ForOp$	-0.165 (-0.65)	-0.050 (-0.24)	-0.050 (-0.17)	-0.057 (-0.21)
ΔSeg	0.198 (1.33)	0.201 (1.24)	0.010 (0.08)	-0.112 (-0.71)
ΔRst	0.173 (1.37)	0.168 (1.18)	-0.081 (-0.64)	-0.153 (-0.96)
$\Delta SaleGr$	0.015** (2.27)	0.013** (2.29)	0.010 (1.16)	0.004 (0.51)
$\Delta Acqn$	0.045 (0.53)	0.042 (0.47)	0.040 (0.47)	0.030 (0.31)
$\Delta Big4$	-0.391** (-2.32)	-0.232 (-1.14)	-0.210 (-1.35)	-0.092 (-0.49)
$\Delta Invt$	-0.731 (-1.26)	-0.955* (-1.83)	0.437 (0.83)	0.258 (0.45)
$\Delta Recvl$	-0.544 (-1.39)	-0.623* (-1.81)	-0.360 (-0.99)	-0.384 (-1.01)
ΔInd_Roa	0.015** (2.18)	0.014*** (2.79)	0.012* (1.74)	0.013** (2.23)
$\Delta Afee$	-0.000*** (-2.79)	-0.000*** (-3.23)	-0.000*** (-4.42)	-0.000*** (-3.48)
Intercept	-0.594*** (-15.08)	-2.054 (-1.38)	-0.126*** (-2.83)	-2.376 (-1.34)
Industry FE	No	Yes	No	Yes
Year FE	No	Yes	No	Yes
Observations	3153	3134	2374	2355
Adjusted R-Squared	0.019	0.078	0.043	0.124

This table presents logistic regression results on the relation between the remediation of firms' material weaknesses and lenders' demand for internal control-related private information (*Equation 2: Hypothesis 4a*). Column 1 & 2 present remediation in $t+1$ period and column 3 & 4 present remediation in $t+2$ period, respectively. Here *REMEDiate* indicates remediation of firms' internal control in $t+n$ period (n equals 1 & 2) and *IC_Cov* indicates lenders' demand for internal control-related private information. t -statistics are in parentheses. The superscripts ***, **, and * represent significance level at 1%, 5%, and 10% level respectively. Standard errors are clustered at firm level for column 2 & 4. All variables are defined in Appendix B.

Table 8 Panel A presents results of the ordered logistic regression investigating the relationship between internal control covenant and the timeliness of remediation. Consistent with the hypothesis 4b, lenders' demand for private information related to internal controls is positively associated with faster remediation of existing material weaknesses.

TABLE 8
Panel A: The Relationship Between Timeliness of Remediation
and Internal Control Covenant (IC_Cov).

Dependent Variable = REMEDIED

	(1)	(2)
<i>IC_Cov</i>	1.051*** (6.12)	0.848*** (4.30)
<i>ΔMve</i>	0.143*** (4.10)	0.183*** (4.50)
<i>ΔLoss</i>	-0.117 (-1.45)	-0.141* (-1.71)
<i>ΔForOp</i>	-0.100 (-0.37)	-0.074 (-0.30)
<i>ΔSeg</i>	-0.006 (-0.05)	-0.108 (-0.75)
<i>ΔRst</i>	-0.142 (-1.24)	-0.193 (-1.53)
<i>ΔSaleGr</i>	0.015* (1.83)	0.010 (1.37)
<i>ΔAcqn</i>	0.031 (0.40)	0.013 (0.16)
<i>ΔBig4</i>	-0.223 (-1.61)	-0.111 (-0.74)
<i>ΔInv</i>	0.434 (0.86)	0.307 (0.54)
<i>ΔRecvl</i>	-0.227 (-0.65)	-0.189 (-0.51)
<i>ΔInd_Roa</i>	0.007 (1.06)	0.007 (1.13)
<i>ΔAfee</i>	-0.000*** (-2.89)	-0.000** (-2.45)
Intercept 1	-0.105** (-2.37)	2.518 (1.33)
Intercept 2	0.487*** (10.77)	3.181* (1.68)
Industry FE	No	Yes
Year FE	No	Yes
Observations	2374	2374
Adjusted R-Squared	0.02	0.085

This table presents ordered logistic regression results on the relation between the timeliness of remediation of firms' material weaknesses and lenders' demand for internal control-related private information (Equation 3: Hypothesis 4b). Here, REMEDIED indicates timeliness of remediation: 2 indicates faster remediation, 1 indicates slower remediation, and 0 indicates no remediation. t-statistics are in parentheses. The superscripts ***, **, and * represent significance level at 1%, 5%, and 10% level respectively. Standard errors are clustered at firm level in column (2). All variables are defined in Appendix B.

Table 8 Panel B presents results of the Cox proportional hazard model analysis. A hazard ratio greater (less) than 1 means the higher the independent variable value the shorter (longer) the time to remediate. The results of hazard analysis further confirm that lenders' demand for internal control-related covenant is positively associated with faster remediation of material weaknesses in internal controls.

TABLE 8

**Panel B: Cox Regression - Hazard Model Analysis on Timeliness of
Remediation of Material Weaknesses**

Variable	Coefficient Estimate	Hazard Ratio	z-statistic
<i>IC_Cov</i>	0.137**	1.146	2.14
<i>Mve</i>	0.095***	1.100	5.65
<i>Loss</i>	-0.135**	0.874	-2.41
<i>ForOp</i>	-0.114	0.892	-0.49
<i>Seg</i>	0.283***	1.327	6.99
<i>Rst</i>	-0.026	0.975	-0.43
<i>SaleGr</i>	0.000	1.000	0.27
<i>Acqn</i>	0.074	1.077	1.37
<i>Big4</i>	0.229***	1.257	3.18
<i>Inv</i>	0.145	1.156	0.8
<i>Recvl</i>	-0.587***	0.556	-2.98
<i>Ind_Roa</i>	0.002**	1.002	2.1
<i>Afee</i>	0.024	1.024	0.99
Number of Obs.	2230		
Chi-square	440.69***		

This table presents results of the Cox proportional hazard model analysis on the relation between the timeliness of remediation of firms' material weaknesses and lenders' demand for internal control-related private information (Equation 4: Hypothesis 4b). Here, the dependent variable is the number of years a firm takes to remediate its ICW. If a firm does not remediate ICW, the dependent variable for that firm is calculated as the number of years the firm remains as ICW firm in the sample. A hazard ratio greater (less) than 1 means the higher the independent variable value the shorter (longer) the time to remediate. The superscripts ***, **, and * represent significance level at 1%, 5%, and 10% level respectively. All variables are defined in Appendix B.

6. Conclusion

In this study, I identify a covenant related to internal controls that lenders demand from the borrowers. In some commercial loan contracts, lenders insert clause that requires borrowers to provide internal control-related private information. I explore the potential circumstances under which lender demand this covenant and whether collection of this private information is associated with improvement in borrower firms' internal control weaknesses. Prior studies, investigating the relationship between private lenders and borrower firms' internal controls, are limited to discussing lenders' actions in debt contract terms. In this study, I go one step further, investigating whether lenders exert any effort to improve borrower firms' internal controls. I argue that lenders have strong incentives to take actions to improve borrower firms' internal controls. To monitor loan contracts, lenders extensively use accounting information, the reliability of which depends on effectiveness of internal controls. Loan contracts are usually for several years. Lenders are less likely to allow their borrowers to continue with ineffective internal controls unless they use non-accounting information for loan contract monitoring.

I find that lenders are more likely to demand internal control-related private information from borrowers with existing weaknesses in internal controls. Lenders ask for this private information possibly to create a passive pressure on borrowers to improve their weaknesses in internal controls. I investigate whether lenders' demand for private information related to internal controls is associated with the remediation of existing material weaknesses. I find that lenders' imposing internal control covenant is positively associated with firms' remediation of existing material weaknesses. This is also positively related to faster remediation.

This study makes several important contributions to the literature. My study adds to the literature discussing determinants of internal controls, debt contracts literature, limited literature investigating mechanisms by which lenders use borrowers' private information in loan contract monitoring, and limited literature that discusses the use of audit-related information in debt contracts. However, this study is not free from caveats. My findings mostly show unknown associations, not causal relations. For example, I show that lenders' demand for internal control-related private information has significant relation in the remediation of borrower firms' existing material weaknesses. However, it is still not clear what exactly lenders do after learning about ineffective internal controls from private information or what exactly borrowers do (e.g. investments, operational changes etc.) as influenced by lenders to improve their internal controls. This limitation of this study opens opportunities for future research.

Appendix A

Below excerpt (reproduced) has been taken from the affirmative covenant section of a loan contract of Wyndham International, Inc. dated May 10, 2005, which Wyndham International filed as an exhibit to its 10-Q Form filed on August 05, 2005. The section 5.02(f), in which, lender asks for *management letter* has been bold marked.

1st Example:

SECTION 5.02 Certificates; Other Information. Furnish to the Administrative Agent with sufficient copies for each Lender (or, in the case of clause (k), to the relevant Lender and the Administrative Agent shall promptly furnish to the Lenders):

(a) concurrently with the delivery of the financial statements referred to in Section 5.01(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 Default or Event of Default, except as specified in such certificate;

(b) as soon as available, but in any event not later than 55 days after the end of each of the first three quarterly periods of each fiscal year of the Borrower and 90 days after the end of each fiscal year of the Borrower, (i) a certificate of a Responsible Officer of the Borrower stating that, to the best of each such Responsible Officer's knowledge, each Loan Party during such period has observed or performed all of its covenants and other agreements, and satisfied every condition, contained in this Agreement and the other Loan Documents to which it is a party to be observed, performed or satisfied by it, and that such Responsible Officer has obtained no knowledge of any Default or Event of Default except as specified in such certificate and (ii) in the case of quarterly or annual financial statements, (x) beginning with the Compliance Certificate for the Fiscal Quarter ending June 30, 2005, a Compliance Certificate containing all information and calculations necessary for determining compliance by Borrower and its Subsidiaries with the provisions of this Agreement as of the last day of such Fiscal Quarter or fiscal year, as the case may be, and (y) to the extent not previously disclosed to the Administrative Agent pursuant to this clause (b), a listing of each new Subsidiary (and (if a Loan Party) its jurisdiction of incorporation and any changes to the jurisdiction of incorporation of any Loan Party from that in effect on the Effective Date and not otherwise notified to the Administrative Agent) acquired or created by any Loan Party since the date of the most recent list delivered pursuant to this clause (b) (or in the case of the first such list, since the Effective Date) and then still existing as a Subsidiary.

(c) as soon as available, and in any event no later than 60 days after the end of each fiscal year of the Borrower, a detailed consolidated budget for the following fiscal year (including a projected consolidated balance sheet of the Borrower and its Subsidiaries as of the end of the following fiscal year, the related consolidated statements of projected cash flow, projected changes in financial position and projected income and a description of the underlying assumptions applicable thereto), and, as soon as available, significant revisions, if any, of such budget and projections with respect to such fiscal year (collectively, the "Projections"), which Projections shall in each case be accompanied by a certificate of a Responsible Officer stating

that such Projections are based on estimates, information and assumptions believed by such Responsible Officer to be reasonable;

(d) within 45 days after the end of each of the first three fiscal quarters of each fiscal year of the Borrower, a narrative discussion and analysis of the financial condition and results of operations of the Borrower and its Subsidiaries for such fiscal quarter and for the period from the beginning of the then current fiscal year to the end of such fiscal quarter, as compared to the portion of the Projections covering such periods and to the comparable periods of the previous year, provided that delivery of such narrative discussion and analysis on Form 10-Q filed with the SEC with respect to such fiscal quarter shall be deemed to satisfy the foregoing requirement;

(e) within 10 days after the receipt thereof by the Borrower, a copy of any “management letter” addressed to the board of directors of the Borrower or any of its Subsidiaries from its certified public accountants and any internal control memoranda relating thereto;

(f) at the time of the delivery of the financial statements described in Section 5.01, a certificate of the chief financial officer of the Borrower, identifying all Asset Dispositions and Exchanges made during the fiscal quarter of the Borrower, and the proceeds thereof, and, except

as previously disclosed as having been reinvested or otherwise applied as required by this Agreement, pursuant to this Section (f), the information tracking all Asset Dispositions and Exchanges made prior such fiscal quarter as to the status of the proceeds, thereof, including whether such proceeds were reinvested or otherwise used as required under this Agreement;

2nd Example:

Below excerpt (reproduced) has been taken from the affirmative covenant section of an amended loan contract of Vail Holdings, Inc. dated October 14, 2016, which Vail Holdings, Inc. filed as an exhibit to its 8-K Form filed on October 17, 2016. The sections 9.1(a) and (c), in which, lender asks for ***management letter*** have been bold marked.

AFFIRMATIVE COVENANTS. So long as Lenders are committed to fund Loans and the L/C Issuers are committed to issue L/Cs under this Agreement, and thereafter until the Obligation is paid in full, Borrower covenants and agrees as follows:

9.1 Items to be Furnished. Borrower shall cause the following to be furnished to each Lender:

(a) With respect to each fiscal year of the Companies, within 5 Business Days after the date required to be filed with the Securities and Exchange Commission as part of the Companies' periodic reporting, Financial Statements showing the consolidated financial condition and results of operations of the Companies as of, and for the year ended on, that last day, accompanied by: (A) the unqualified opinion of a “Registered Public Accounting Firm” (as such term is specified in the Securities Laws) of nationally-recognized standing, based on an audit using generally accepted auditing standards and applicable Securities Laws, that the Financial Statements were prepared in accordance with GAAP and present fairly, in all material respects, the consolidated financial condition and results of operations of the Companies, **(B) any management letter**

prepared by the accounting firm delivered in connection with its audit, (C) a certificate from the accounting firm to Administrative Agent indicating that during its audit it obtained no knowledge of any Default or Potential Default, or if it obtained knowledge, the nature and period of existence thereof, and (D) a Compliance Certificate with respect to the Financial Statements.

(b) With respect to each fiscal quarter of the Companies (other than the last fiscal quarter of each fiscal year), within 5 Business Days after the date required to be filed with the Securities and Exchange Commission as part of the Companies periodic reportings, Financial Statements showing the consolidated financial condition and results of operations of the Companies for such fiscal quarter and for the period from the beginning of the current fiscal year to the last day of such fiscal quarter, accompanied by a Compliance Certificate with respect to the Financial Statements.

(c) **Promptly after receipt, a copy of each interim or special audit report, management letter, and recommendations issued by independent accountants with respect to any Company or its financial records.**

3rd Example:

Below excerpt (reproduced) has been taken from the affirmative covenant section of an amended loan contract of SANDRIDGE ENERGY, INC. dated October 22, 2014, which SANDRIDGE ENERGY, INC. filed as an exhibit to its 8-K Form filed on October 24, 2014. The sections 6.02(b), in which, lender asks for ***management letter*** have been bold marked.

ARTICLE 6 **AFFIRMATIVE COVENANTS**

So long as any Lender shall have any Commitment hereunder, any Loan or other Obligation owing to any Lender or to the Administrative Agent hereunder shall remain unpaid or unsatisfied, or any Letter of Credit shall remain outstanding and not fully Cash Collateralized, the Borrower shall, and shall (except in the case of the covenants set forth in Sections 6.01, 6.02, and 6.03) cause each Restricted Subsidiary to:

Section 6.01. *Financial Statements.* Deliver to the Administrative Agent and the Lenders as contemplated by the last paragraph of Section 6.02:

Section 6.02. *Certificates; Other Information.* Deliver to the Administrative Agent and the Lenders as contemplated by the last paragraph of this Section 6.02:

(a) concurrently with the delivery of the financial statements referred to in Sections 6.01(a) and (b) (commencing with the delivery of the financial statements for the fiscal quarter ended March 31, 2015 in the case of (b) and December 31, 2014 in the case of (a)), (i) a duly completed Compliance Certificate signed by the chief executive officer, chief financial officer, treasurer or controller of the Borrower and (ii) a calculation of the Borrowing Base Utilization Ratio as of the end of the most recent fiscal quarter;

(b) promptly after any request by the Administrative Agent or any Lender, 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 the Borrower by independent accountants in connection with the accounts or books of the Borrower or any Restricted Subsidiary, or any audit of any of them;

(c) promptly after the same are available, copies of all annual, regular, periodic and special reports, registration statements and proxy statements which the Borrower may file or be required to file with the SEC under Section 13, 14 or 15(d) of the Securities Exchange Act of 1934, or with any national securities exchange, and in any case not otherwise required to be delivered to the Administrative Agent pursuant hereto;

Appendix B

Variable Definitions	
<i>IC_Cov</i>	An indicator variable that equals one when lenders require borrowers to submit to lenders any communication received from auditors discussing internal control deficiencies or possible improvement areas in the internal control of the borrower firm. Otherwise it equals zero.
<i>ICS</i>	This represents either <i>ICW</i> or <i>RSTM</i> which are defined below.
<i>ICW</i>	This is an indicator variable that equals one if the borrower firm discloses material weakness in internal control under Section 404 of the Sarbanes-Oxley Act and zero otherwise.
<i>RSTM</i>	This is an indicator variable that equals one if the borrower firm restates prior period financial statements where the cause of misstatement is internal control deficiency and zero otherwise.
<i>REMEDiate</i>	This is an indicator variable that equals one if the firm receives a clean opinion on internal control in $t+n$ period, and zero otherwise. Here n equals 1 for first year and 2 for second year.
<i>REMEDIED</i>	This an indicator variable that equals 2 (<i>fast remediators</i>) if the borrower firm has remediated its internal control weakness in $t+1$ period, <i>REMEDIED</i> equals 1 (<i>slow remediators</i>) if the firm has remediated its internal control weakness in $t+2$ period, and <i>REMEDIED</i> equals 0 (<i>non-remediators</i>) if the firm has failed to remediate its material weakness in the first and second year.
<i>Rel_Lending</i>	An indicator variable that equals one if any of the borrower's lead arranger had been a lead arranger of the borrower's previous loans in the prior five years and zero otherwise.
<i>Size</i>	Log of total assets of the borrower.
<i>ROA</i>	The ratio of income before extraordinary items to total assets of the borrower.
<i>Rated</i>	Indicator variable that equals one if the borrower has a S&P rating and zero otherwise.
<i>Intang</i>	The ratio of intangible assets to total assets.
<i>Lev</i>	The ratio of debt to total assets for the borrower.
<i>Current</i>	Current ratio. The ratio of current assets to current liabilities.
<i>B2M</i>	The ratio of book value of equity to the market value of equity.
<i>Big4</i>	An indicator variable that equals one if the auditor of the borrower firm is one of the Big 4 auditors, and zero otherwise.
<i>Z_Score</i>	Altman's (1968) $Z_score = 1.2(\text{Working capital}/\text{Total assets}) + 1.4(\text{Retained earnings}/\text{Total assets}) + 3.3(\text{Earnings before interest and taxes}/\text{Total assets}) + 0.999(\text{Net sales}/\text{Total assets})$.
<i>Inv</i>	Amount of Inventory at the fiscal year end.
ΔInv	Changes in inventory in $t+n$ period.
<i>Recv</i>	Amount of accounts receivable at the fiscal year end.
$\Delta Recv$	Changes in receivables in $t+n$ period.
ΔInd_RoA	Changes in industry adjusted ROA in $t+n$ period.

$\Delta Afee$	Changes in audit fees in $t+n$ period.
$Perf_Prc$	An indicator variable that equals one if the debt contract includes a performance pricing provision based on accounting data and zero otherwise.
F_Cov	The number of financial covenants in the debt contract.
$Maturity$	Loan maturity in months.
$Loan_Sz$	The natural log of facility amount.
Syn_Sz	The natural log of one plus the number of lenders in the lending syndicate.
$Revolver$	Indicator variable that equals one if the debt is revolving type, and zero otherwise.
$Secured$	Indicator variable that equals one if the loan is secured, and zero otherwise.
$Spread$	The total annual all-in-drawn spread for the facility.
Mve	Log value of the firm's market value of equity.
$Loss$	An indicator variable that equals one if income before extraordinary items (Compustat item IB) is less than zero, equals zero otherwise.
$ForOp$	An indicator variable that equals one if the firm has any non-zero foreign currency adjustment at fiscal year-end, and zero otherwise (Compustat item FCA).
Seg	The natural log of one plus the number of business segments.
Rst	An indicator variable that equals one if the firm reports a non-zero value in any of the four restructuring items at fiscal year-end, and zero otherwise (Compustat items RCA, RCD, RCEPS, or RCP).
$Acqn$	An indicator variable that equals one if the firm engages in acquisitions in the given fiscal year, and zero otherwise (Compustat items AQA, AQC, AQI, AQP, or AQS).
$SaleGr$	Percentage change in sales over the previous year sales.
$IndFE$	Industry fixed effects.
$YrFE$	Year fixed effects.
$LoanPurposeFE$	Loan purpose fixed effects.

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Vita

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