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Disclosure of Pending Lawsuits and Bond Terms

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Abstract

I examine the effect of the disclosure of pending lawsuits in 10-K/Q filings on the contractual terms of newly issued bonds. I find that firms' decision to disclose pending lawsuits and the amount of disclosed information (i.e., the level of disclosure) have opposite effects. Specifically, firms that disclose a higher proportion of their pending lawsuits face higher yields and are more likely to include default clauses pertaining to court judgments in the bond prospectuses. However, within the subsample of firms that disclose their lawsuits, I find that firms with a higher level of disclosure regarding their pending lawsuits are rewarded with lower yields. This evidence suggests that bond investors interpret the decision to disclose pending lawsuits as a sign that the potential losses due to these lawsuits are material and reasonably possible and thus demand more stringent bond terms. However, bond investors associate a higher level of disclosure with a lower likelihood of withholding bad news and thus accept lower yields.

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1. Introduction

How corporate disclosure facilitates the functioning of capital markets is an important question in the accounting literature (Healy and Palepu 2001). Corporate disclosure includes both disclosures under the duty to disclose and those made by firms voluntarily. Two large strands of literature have examined the effects of disclosure regulation and voluntary disclosure on capital markets separately.¹ However, whether and how investors recognize the differential effects of mandatory disclosure requirements and voluntary disclosure incentives within the same disclosure remains an open question. Using the disclosure of pending lawsuits in firms' 10-K/Q filings as a laboratory, I investigate whether investors disentangle firms' requirements to disclose pending lawsuits from their voluntary disclosure incentives. Specifically, I examine the consequences of pending lawsuit disclosure on the contract terms of newly issued bonds.

The disclosure of pending lawsuits is a unique setting to study how mandatory disclosure requirements and voluntary disclosure incentives may affect investors' risk assessments in different ways because the disclosure of pending lawsuits contains two sequential decisions: First, firms need to decide whether to disclose a pending lawsuit. Statement of Financial Accounting Standards (SFAS) No. 5 requires that if there is at least a reasonable possibility that a material loss may be incurred from a pending lawsuit, a firm should disclose the litigation in the footnotes to its financial statements. In addition, Regulation S-K Item 103 mandates that a firm should describe a pending lawsuit if the potential damage exceeds ten percent of the firm's current assets. Second, after firms decide to disclose a pending lawsuit, they need to choose the amount of information to disclose. SFAS No. 5, however, does not specify well the level and content of the disclosure regarding pending lawsuits. This leaves firms substantial discretion as to what information to disclose. As such, the level of disclosure may be driven by factors such as the proprietary costs of disclosure. Taken together, the disclosure of pending lawsuits contains two dimensions: the decision to disclose and the amount of disclosed information. These two disclosure dimensions are likely to be driven by mandatory disclosure requirements and voluntary disclosure incentives, respectively.

¹ See Healy and Palepu (2001) and Leuz and Wysocki (2016) for comprehensive reviews of the literatures on disclosure regulation and voluntary disclosure.

I investigate whether investors recognize the two disclosure dimensions embedded in firms' disclosure of pending lawsuits and demand different price protection. In particular, I use the bond market to examine the effects of firms' disclosure policies regarding pending lawsuits. Firms are often involved in lawsuits as defendants, and these lawsuits can be very costly. They entail significant legal expenses, distract managers, and can even force firms into bankruptcy.² For example, during the period from 2000 to 2008, 35% of U.S. public firms issuing bonds have pending lawsuits, and the average realized litigation loss of these lawsuits is about 50% of the bonds' face value. Moreover, competing and unsecured claims such as litigation losses increase the coordination costs among creditors, lengthen the time spent in default, and reduce the amount that can be paid out to bond investors (Helwege 1999). Hence, the disclosure of pending lawsuits is likely to be important for bond investors.^{3,4}

To verify whether a firm is involved in a pending lawsuit – irrespective of whether the firm discloses the lawsuit – I use a litigation dataset from Audit Analytics. This dataset covers all lawsuits filed against public firms in federal district courts in the United States since 2000.⁵ Using a text search program, I then identify whether a defendant firm discloses the pending lawsuit in its 10-K/Q filings. This approach allows me to examine the effects of the disclosure of pending lawsuits in a sample of firms that are all involved in such lawsuits. That is, I can compare firms that disclose information about their lawsuits with firms that do

² The 2005 Tillinghast D&O insurance survey reports that the median and mean legal expense is \$538,150 and \$1,965,079, respectively, per shareholder litigation claim, corresponding to about 11% of the total settlement amount (Baker and Griffith 2007).

³ The U.S. Bankruptcy Code gives full priority to certain unsecured claims over general unsecured claims within the following categories: (1) post-bankruptcy administrative claims, (2) claims arising after the commencement of an involuntary bankruptcy, (3) wage and other compensation-related claims, up to \$4,000 per individual, (4) employee benefit claims, (5) claims of farmers and fishermen, (6) customer claims up to \$18,000, (7) claims for alimony or child support, (8) government tax claims, and (9) claims of the FDIC and other financial regulatory agencies (11 U.S.C. 507 (a) (1994)). These priority claims are subordinated to secured claims. All other unsecured claims then share pro rata in any remaining assets.

⁴ Banks are fixed claimants of firms, too. However, loans are typically senior and secured. As such, banks are likely to be less concerned than bond investors about the potential losses due to lawsuits.

⁵ Audit Analytics collects information about corporate lawsuits from Public Access to Court Electronic Records (PACER), Stanford Securities Class Action Clearinghouse, and press releases. The coverage of the litigation dataset is from 2000 until the present, and the lawsuits covered are primarily those filed with federal district courts across the U.S.

not disclose their pending lawsuits, rather than examine only the subset of firms that disclose the lawsuits in their 10-K/Q filings.⁶

Using a sample of 838 bonds issued by 219 firms (which are all involved in pending lawsuits), I find that the decision to disclose lawsuits is positively related to the ex post realized litigation loss. This finding is consistent with the argument that the decision to disclose the lawsuits is mainly driven by firms' compliance with mandatory disclosure requirements, i.e., firms disclose lawsuits when the potential losses are material and reasonably possible. I then examine whether bond investors recognize firms' compliance with mandatory disclosure requirements when setting the bond yields. I find strong evidence that bond investors demand higher yields from firms that disclose their pending lawsuits compared to those that do not disclose this information. The economic magnitude is significant: A one standard deviation increase in the percentage of lawsuits disclosed leads to an increase of yield spreads by ten basis points, corresponding to about five percent of the average yield spread in the sample. This result is consistent with bond investors perceiving the disclosure of pending lawsuits as the result of mandatory disclosure requirements and reacting negatively. Specifically, this finding suggests that bond investors infer from the firms' decision to disclose the lawsuits that the potential losses are material and reasonably possible. Consequently, bond investors charge higher yields on bonds issued by defendant firms that disclose their lawsuits. The result is robust to alternative measures of the decision to disclose lawsuits such as a count of lawsuits disclosed and a value-weighted percentage of lawsuits disclosed. To mitigate the concern that a firm's decision to disclose its pending lawsuits may be affected by unobservable factors that also influence bond yields, I use a two-stage least squares (2SLS) estimation. This approach confirms the previous results.

Consistent with the argument that bond investors care more about the disclosure of pending lawsuits if alternative information sources are inadequate or if the firm has a high probability of default, I find that the effect of the disclosure of pending lawsuits on bond yields is stronger if the defendant firm has low analyst

⁶ For example, Hennes (2008) and Chen et al. (2015) extract the disclosure of pending lawsuits from 10-K filings for firms that disclose pending lawsuits. Consequently, their disclosure samples are non-random and are likely to cover more severe lawsuits.

following or high credit risk. In addition, the bond prospectuses of firms that disclose their pending lawsuits are more likely to include default clauses pertaining to court judgments. Such clauses trigger default if the firms fail to pay court judgments above certain thresholds. I do not find any evidence that the disclosure of pending lawsuits affects other non-pricing bond terms such as maturity, issue size, or covenants.

Next, I investigate whether bond investors take into account the voluntary disclosure incentives that affect the amount of disclosed information (conditional on disclosing any information about the lawsuits in the 10-K/Q filings). To do so, I manually code the disclosed information and construct a disclosure score based on the items proposed by the Financial Accounting Standards Board (FASB) exposure drafts regarding the disclosure of pending lawsuits.⁷ These items can be broadly categorized into information related to the facts, contentions, involvement, and potential impact of the lawsuits. To capture the level of private information that managers may have about the lawsuits, I construct the main disclosure score based on proprietary items (i.e., items about the involvement and potential impact of the lawsuits).

Focusing on the subsample of defendant firms that provide information about their pending lawsuits, I find that the level of disclosure pertaining to pending lawsuits is negatively related to the ex post realized litigation loss. This finding suggests that the level of disclosure is mainly driven by firms' voluntary disclosure incentives, i.e., firms disclose more information about less severe lawsuits and withhold more information about more severe lawsuits (conditional on disclosing any information at all).

I then examine whether bond investors recognize firms' voluntary disclosure incentives. I find that firms that disclose a high level of information are charged with lower bond yields. This result is consistent with voluntary disclosure theories positing that investors associate a high level of disclosure with a lower likelihood of withholding unfavorable information (i.e., Verrecchia 1983, 2001, Dye 1985). Even though the disclosure of a pending lawsuit is bad news overall, lawsuits with relatively lower potential damages can still be regarded as more favorable news than lawsuits with larger losses. Taken together, these results

⁷ In July 2008 and August 2010, the FASB proposed two exposure drafts regarding disclosures of certain loss contingencies (No. 1600-100 and No. 1840-100), aiming to enhance the disclosure requirements for certain contingent liabilities, in particular those arising from litigation.

suggest that bond investors associate the level of disclosure about pending lawsuits with firms' incentives for voluntary disclosure.

In the main analysis, I focus on the proprietary items to identify firms' overall disclosure level. However, the negative relation between the level of disclosure about pending lawsuits and bond yields is robust to alternative measures of the disclosure level. Specifically, I reconstruct the disclosure score that captures the amount of disclosed information by summing over all items, including those related to the facts, contentions, involvement, and potential impact of the lawsuits or attaching more weight to items that contain quantitative information. The estimated effect of the level of disclosure about pending lawsuits on the firms' bond yields remains also similar when I use a two-stage least squares (2SLS) estimation to mitigate the concern that the disclosure level is endogenous or a Heckman selection model to account for firms self-selecting to disclose lawsuits.

This paper makes several contributions to the literature. First, it adds to the disclosure literature by showing that investors recognize the effects of mandatory disclosure requirements and voluntary disclosure incentives within the same disclosure and price them differently. Prior research that examines the relation between voluntary disclosure and the cost of capital provides evidence that the level of disclosure, proxied by self-constructed disclosure scores or those provided by analysts, is negatively related to the cost of capital (e.g., Lang and Lundholm 1993, Welker 1995, Lang and Lundholm 1996, Botosan 1997, Sengupta 1998). This finding supports the view that firms voluntarily disclose information to lower their cost of financing. However, Heitzman, Wasley, and Zimmerman (2010) point out that failing to account for the presence of disclosure requirements in voluntary disclosure studies could lead to incorrect inferences about the incentives for voluntary disclosure and its consequences. My paper differs from these voluntary disclosure studies by showing that corporate disclosure decisions have more than one dimension: not only the decision to disclose but also the amount of information to disclose. Further, the decision to disclose can have the opposite effect on the cost of capital compared to that of the level of disclosure.

In addition, although Barth, McNichols, and Wilson (1997) and Heitzman, Wasley, and Zimmerman (2010) have documented that mandatory disclosure requirements and voluntary disclosure incentives can

jointly affect firms' disclosure decisions, these studies do not examine the consequences of such joint disclosure forces within the same disclosure from investors' perspectives. This paper contributes to this line of research by documenting whether and how investors differentiate firms' compliance with mandatory disclosure requirements and their voluntary disclosure incentives. Despite the small sample size, the paper thus has broader implications for our understanding of how investors take into account the differential effects of mandatory disclosure requirements and voluntary disclosure incentives.

Second, the paper contributes to the debate on whether the FASB should enhance the disclosure requirements regarding pending lawsuits. While the FASB has proposed two exposure drafts to improve the level of litigation disclosure (No. 1600-100 and No. 1840-100) in 2008 and 2010, the exposure drafts received many objections from firms and lawyers, who argue that enhanced mandatory disclosure requirements would jeopardize the client-attorney privilege and put firms' defense position in disadvantage. Eventually, in July 2012, the FASB voted to drop these drafts from its agenda.

The evidence in this paper provides support for the FASB's decision. Specifically, my findings suggest that the existing requirements lead to mandatory disclosures that provide material information about pending lawsuits. Furthermore, investors can obtain additional detailed information about the lawsuits through firms' voluntary disclosures. If firms choose not to provide a high level of litigation disclosure despite potential capital market benefits of doing so (i.e., reducing bond yields), they presumably do so because the proprietary costs of such disclosure are too high. Therefore, it may be rational for the FASB not to force firms to disclose too much information about pending lawsuits.

Third, the paper improves our understanding of the role of disclosure in debt markets. Because pending lawsuits are an important impediment in bankruptcy resolution (Helwege 1999), they are material from debt holders' point of view. Hence, debt holders value information that can help them assess the likelihood, timing, and amount of potential losses associated with pending lawsuits. The finding that pending lawsuit disclosure also affects non-pricing debt contract terms – in particular the default clauses pertaining to court judgments – further documents a new channel through which information disclosure can affect debt contracting.

2. Hypothesis Development

The incentives view on reporting regulation is fundamental to the accounting literature (Leuz and Wysocki 2016). According to the incentives view, reporting standards are designed to leave substantial discretion to managers. Indeed, the reporting standards encourage managers to use their private information in applying the standards, such as their assessments of future contingencies. The key take-away from the incentives view is that incentives determine how managers use the discretion permitted within the standards (Leuz and Wysocki 2016): As long as there is discretion, reporting or disclosure decisions are influenced by both mandatory disclosure requirements and voluntary disclosure incentives. However, it is ex ante unclear whether investors recognize the differential effects of mandatory disclosure requirements and voluntary disclosure incentives in managers' disclosure decisions.

The disclosure of pending lawsuits is a situation in which the accounting rules are vague enough to permit incentives for voluntary disclosure to come into play. Specifically, the disclosure of pending lawsuits includes two sequential decisions: (1) whether or not to disclose lawsuits, which is largely driven by mandatory disclosure requirements, and (2) conditional on disclosing lawsuits, what information to disclose, which is mainly affected by voluntary disclosure incentives.

2.1. The Decision to Disclose Pending Lawsuits

SFAS No. 5 requires firms to disclose a pending lawsuit if the potential loss due to the lawsuit is material and reasonably possible. The American Institute of Certified Public Accountants (AICPA) has similar guidelines on the disclosure of litigation contingencies (AICPA Statement of Position 94-6).⁸ In practice, auditors largely rely on corporate counsels to assess the potential outcomes of pending lawsuits (Krogstad, Taylor, and Stock 2002).⁹ Item 103 of Regulation S-K provides a clear threshold (i.e., 10% of firms' consolidated current assets) for the materiality of potential losses.

⁸ AICPA Statement of Position 94-6 requires the disclosure of an estimate concerning a loss contingency if it is at least reasonably possible that its effect on the financial statements will change in the near term and the change is material to the financial statements.

⁹Based on the 1975 information sharing agreement between the AICPA and the American Bar Association, corporate counsels need to update auditors on information about firms' pending lawsuits.

The estimation of the likelihood, timing, and amount of the losses associated with pending lawsuits remains extremely difficult and is inherently uncertain due to the complex legal process. A typical litigation consists of four stages: pleading, discovery, trial, and appeal.¹⁰ In between these stages, firms may choose to privately settle the conflict or bring in a neutral third party to conduct dispute resolution. Depending on the nature of litigation, this process can last for several years, and the outcome of the litigation is inherently unpredictable. Throughout the litigation process, the managers of defendant firms engage in continuous discussions with in-house and outside corporate counsels and exchange private information protected by the attorney-client privilege. To the extent that managers have superior private information and bond investors are uncertain about the expected losses of pending lawsuits, disclosure in 10-K/Q filings can provide additional information about the materiality and likelihood of the lawsuit outcomes to the investors.

There is ample evidence showing that investors value information contained in Securities and Exchange Commission (SEC) filings. For instance, Griffin (2003) finds a significant investor response immediately following the Form 10-K and 10-Q filing dates, and that the magnitude of the response for both types of filings has increased since 1996, after these filings became electronically available. Further, Brown and Tucker (2010) provide evidence that investors respond to changes in the Management Discussion & Analysis (MD&A) section in 10-K filings. Specifically, they find that the stock market reaction to 10-K filings is positively associated with their MD&A modification measure. Regarding bond investors, Gao, Gao, and Smith (2011) show that bond investors actively enforce their rights when firms delay filing financial reports with the SEC.

To the extent that firms' decisions to disclose pending lawsuits in 10-K/Q filings convey managers' private information about the lawsuits and signal that the potential losses due to the lawsuits are material

¹⁰ The pleading stage involves the filing of a complaint or petition in which plaintiffs set forth allegations against the defendant, followed by the defendant's answer to the complaint. Discovery is the second stage, in which each party can obtain evidence from the opposing party. A trial occurs when parties come together to present information before a judge, and the judge aims to resolve the dispute. Finally, an appeal is the process in which parties request a formal change to the decision reached in the trial.

and reasonable possible, one would expect a positive association between the ex post litigation loss and the decision to disclose pending lawsuits. This leads to the following hypothesis:

H1a: The ex post realized litigation loss is positively related to the decision to disclose pending lawsuits.

Since firms are likely to disclose their pending lawsuits when their potential losses are material and reasonably possible, the decision to disclose a pending lawsuit provides information itself. Bond investors should thus infer from a disclosure that a lawsuit may have a severe impact on the firm and therefore demand a higher yield. Hence, I formulate H1b as follows:

H1b: Firms that disclose their pending lawsuits in the 10-K/Q filings are charged with higher yields on subsequently issued bonds.¹¹

2.2. The Level of Pending Lawsuit Disclosure

Despite the SFAS No. 5 requirements regarding the conditions under which firms need to disclose their pending lawsuits, substantial discretion remains about what information to disclose. The level and content of such disclosures are not well specified in the accounting standards. For example, SFAS No. 5 only vaguely requires firms to disclose the nature of a litigation and an estimate of a possible loss or a range of losses, or to state that such an estimate cannot be made. Indeed, the FASB expressed increasing levels of concern about the insufficient level of disclosure of litigation loss contingencies and proposed two exposure drafts to enhance litigation disclosure (No. 1600-100 and No. 1840-100).

The discretion over what information to disclose allows voluntary disclosure incentives to play a role. For example, more disclosure reduces uncertainty about a firm's value, which in turn alleviates adverse selection costs and investors' demand for price protection (Diamond and Verrecchia 1991, Verrecchia

¹¹ The vague definition of "reasonably possibility" in SFAS No. 5 leaves a certain degree of discretion to managers whether or not to disclose lawsuits. Hence, the decision to disclose lawsuits may also be affected by firms' incentives for voluntary disclosure. If so, one would find a negative association between the ex post litigation loss and the decision to disclose pending lawsuits. Bond investors may then require a lower yield for firms that disclose their pending lawsuits. The empirical analyses presented in this paper show that this is not the case.

2001). In the setting of a secondary market for corporate bonds, Duffie and Lando (2001) posit that more accurate accounting information reduces the uncertainty associated with asset values and that credit spreads decrease with the precision of accounting information. To the extent that a higher level of disclosure related to pending lawsuits decreases uncertainty about the likelihood, timing, and amount of future cash outflows associated with the lawsuits, one may expect a negative association between the level of disclosure and the yield required by investors.

This negative association is also supported by theories positing that firms voluntarily disclose favorable news and withhold unfavorable news if there are proprietary costs from disclosure or if investors are uncertain of the kind of private information that managers hold (Verrecchia 1983, Dye 1985, Jung and Kwon 1988). Even though lawsuits are generally bad news for defendant firms, their severity still varies. Bond investors may infer that firms disclose more information about pending lawsuits because they have a lower likelihood of incurring severe losses related to these lawsuits. If so, one would expect a negative association between the ex post realized litigation loss and the level of disclosure. This leads to the following hypothesis:

H2a: Conditional on disclosing any information about their pending lawsuits, firms that disclose more information experience lower ex post realized litigation losses.

Consequently, bond investors may perceive a higher level of pending lawsuit disclosure (i.e., disclosure of more information) as relatively good news. As a result, bond investors may demand a lower yield from firms that disclose more information regarding their pending lawsuits. This leads to H2b:

H2b: Conditional on disclosing any information about their pending lawsuits, firms that disclose more information (i.e., firms with a higher level of pending lawsuit disclosure) have lower bond yields.

Nevertheless, not all firms would disclose more information about pending lawsuits to receive lower bond yields. This is because there are proprietary costs arising from disclosures pertaining to pending lawsuits. Specifically, confidential legal advice, lawyer thought processes, and legal analysis disclosed in public filings can allow the plaintiff to review the strategies of the firm's defense counsel. Hence, some

defendant firms have incentives to withhold information that has the potential to undermine their defense position.

3. Data and Research Design

3.1. Data

To construct the sample related to firms' decisions to disclose pending lawsuits, I follow four steps. In Step 1, I start with a litigation dataset from Audit Analytics and focus on the firms that were sued in a U.S. federal district court between 2000 and 2003. These firms can be involved in various corporate lawsuits including anti-trust lawsuits, product lawsuits, and securities lawsuits. These lawsuits can be brought upon by other corporations, shareholders, investors, or employees. During the period from 2000 to 2003, lawsuits brought upon by shareholders and patent infringement lawsuits are the most common types of corporate lawsuits, followed by breach of contract, labor violations, anti-trust lawsuits, and product liability lawsuits.

I choose corporate lawsuits instituted between 2000 and 2003 for three reasons.¹² First, the litigation data are extensively available in the Audit Analytics database only from 2000 onward. Second, collecting the level of disclosure about pending lawsuits requires the manual coding of each defendant firm's relevant disclosures in its 10-K/Q filings over the period during which the lawsuit is ongoing – a period that typically lasts for several years.¹³ Third, to ensure the completeness of each firm's disclosure of pending lawsuits over time, I impose the restriction that all lawsuits in the sample have been resolved by the time I collect the data. In summary, all lawsuits in the sample were originally filed between 2000 and 2003. However, the disclosure of pending lawsuits can last up to 2008, by which time all lawsuits in the sample have been resolved. Table 1 presents the sample selection process. There are 6,552 firms in the sample. These firms are involved in 3,620 lawsuits.¹⁴

¹² For the final sample of 838 bond issues, I also follow up and check whether there are additional lawsuits filed against the bond issuers after 2003 and before they raise debt capital since the sample period of the bond issues is from 2000 to 2008. If there are additional lawsuits, I incorporate the disclosure of these lawsuits in the coding of the disclosure variables.

¹³ In my sample, a lawsuit takes about two years to be resolved, on average.

¹⁴ The reason why there are more firms than lawsuits in the sample is that multiple firms can be involved in the same lawsuit.

In Step 2, using the basic litigation information pertaining to the lawsuits from Step 1 as inputs (i.e., case title, instituted date, plaintiff name, and court name), a text extraction algorithm searches each defendant firm's 10-Q and 10-K filings over the period during which the lawsuits are ongoing.¹⁵ The 10-K filings are used as if they are the 10-Q filings for the fourth quarter. I use the 10-Q filings because the SEC requires firms to disclose any new developments regarding their lawsuits in the 10-Q filings.¹⁶

Each time the algorithm finds any of the keywords related to the basic litigation information in the 10-K/Q filings, it prints the ten lines before and sixty lines after the keyword. To ensure that the retrieved information corresponds to the lawsuit in question, I manually check the extracted lines and drop any irrelevant disclosures.¹⁷ Finally, I construct a disclosure variable, $Disclose_{pct}$, which is the number of lawsuits that are described in the text extracts divided by the total number of pending lawsuits for each firm-quarter observation. I use the percentage of lawsuits disclosed to proxy for firms' decision to disclose lawsuits because a significant fraction of firms are involved in more than one lawsuit at a given point of time.¹⁸ The percentage of lawsuits disclosed thus captures the firms' overall disclosure decisions and facilitates the comparison across firms with different number of pending lawsuits. However, the results are also robust to alternative measures such as a count of pending lawsuits disclosed and a value-weighted percentage of lawsuits disclosed. Note that all firms in the sample are involved in pending lawsuits. Thus, $Disclose_{pct} = 0$ does not indicate firms that are not involved in a lawsuit but rather firms that do not disclose any information regarding their pending lawsuits.

¹⁵ To capture disclosures of lawsuits that are anticipated or released after resolutions, I extend the search period to one quarter before a lawsuit is instituted and one quarter after the lawsuit has been resolved.

¹⁶ Firms are allowed to omit any information previously reported about the lawsuits and report only the new development of the lawsuits. However, in practice, most companies report the full information in their 10-Q filings. Nevertheless, to avoid any loss of information, when I code the disclosure variables prior to the bond issuance, I make sure that they capture not only the new developments but also all information available in prior 10-Q and 10-K filings.

¹⁷ I also conduct a full inclusion test. Specifically, I first identify a sample of 30 lawsuits manually in the SEC filings, and then I cross check to ensure that the text search program identifies all these lawsuits. I thank an anonymous referee for this suggestion.

¹⁸ Specifically, 97 out of 219 firms in the final sample were involved in more than one lawsuit at the same time.

In Step 3, I match the sample of defendant firms with 10-K/Q filings with Compustat. I end up with 1,525 firms that are involved in 1,848 lawsuits. A potential concern is that firms may anticipate accessing the bond market in the near future, and this anticipation could be a potential determinant of their disclosure decision. In particular, if firms expect bond investors to respond negatively to the disclosure of pending lawsuits, they may prefer to withhold information about the lawsuits despite the potential costs of doing so (e.g., litigation risk). However, in Appendix A.2, I show that whether firms access the bond market in the next quarter does not affect the frequency of disclosing lawsuits after controlling for the potential determinants of pending lawsuit disclosure.

In Step 4, in order to examine the impact of pending lawsuit disclosure on bond terms, I match the sample with the Mergent Fixed Income Securities Database (FISD) using the last available 10-K/Q filings prior to the bond issuance date. Thus, I match bond issues with the disclosure variables measured based on the 10-K/Q filing for the fiscal quarter before a bond is issued. I do so to capture the disclosure of the latest developments of lawsuits prior to the bond issuance. Since the disclosure of pending lawsuits for the 1,525 defendant firms identified in the previous step can occur between 2000 and 2008, I retain bonds issued by these firms over the same sample period. I also restrict the sample to the firms for which information for all explanatory variables is available (see Appendix B for variable definitions). The final sample comprises 838 bonds issued by 219 firms from 2000 to 2008, which are involved in 460 lawsuits. 97 out of the 219 firms in the final sample are involved in more than one lawsuit at the same time (untabulated).

While the Mergent FISD database contains information on a new bond issue's yield, rating, maturity, and other characteristics, it does not provide detailed descriptions of default clauses. I thus manually search the bond prospectuses and document information regarding default clauses related to court judgments. Bond prospectuses are typically filed with the SEC on registration forms such as S3 and 424B, and an issuer can submit several registration forms for the same issue. I code the default clauses in the final registration form, as this form contains the most complete information.

Table 2 provides summary statistics for the final sample. The average yield spread is 187 bps, and the average maturity of the bonds is about ten years. The median of the rating value is six, implying that more

than half of the sample are investment-grade bond issues.¹⁹ The mean of *Disclose_{pct}* is 0.14, indicating that firms disclose 14% of their pending lawsuits, on average.

To capture the level of disclosure (i.e., the amount of disclosed information) for the subsample of firms that disclose any information about their lawsuits, I construct a variable (*Dscore*) based on the proprietary items of the disclosure extracted by the text search program in Step 2. To do so, I first develop a checklist of disclosure items (see Appendix C), based on the FASB's 2008 and 2010 exposure drafts on the Disclosure of Certain Loss Contingencies (No. 1600-100 and No. 1840-100) and sample readings of litigation disclosures in the footnotes of 10-K/Q filings (see details in Appendix D). The FASB provides these items as guidance to enhance the disclosure level of loss contingencies, in particular, litigation-related contingencies. They fall into four categories: (I) facts about the lawsuit, such as the date on which it was instituted, its docket number, and the name of the plaintiff;²⁰ (II) the contentions of the parties, including the legal or contractual basis of the plaintiff's claim and the type of compensation the plaintiff is seeking; (III) the evolution of the lawsuit, such as its current status and the next steps of the case; and (IV) the potential loss and impact of the lawsuit, including the estimated loss and insurance coverage. Categories (I) and (II) may not be managers' proprietary information since the facts and contentions of the lawsuits can be found in other public documents such as court records. Hence, in the main analysis, I use a disclosure score based on the more proprietary items in Categories (III) and (IV) that are related to the evolution and potential loss and impact of the lawsuit. However, in a sensitivity analysis, I show that the results are robust to using a disclosure score based on all items.

I read through the information extracted by the text search program and assign a score of "1" or "0" to each of the above items within Categories III and IV (except for the non-financial impact of the lawsuit²¹),

¹⁹ The rating values are assigned as a decreasing function of credit ratings: the higher the credit rating, the lower the rating value. For example, a AAA rating corresponds to a rating value of "1."

²⁰ Docket number refers to the unique number that a court clerk assigns to each case. This number remains with the case until it is resolved and helps identify and search for information regarding the case.

²¹ A firm may discuss the non-financial impact of the lawsuit from different perspectives, such as the effect of the lawsuit on the design of products, the loss of customers, and the diversion of management attention, etc. I assign a score of "1" to each of these aspects and add each one to obtain a total score for the item

depending on whether a firm provides the relevant information in its 10-K/Q filings. Finally, I compute the variable *Dscore* as the average of the sum of all proprietary items' scores across lawsuits in a 10K/Q. A higher disclosure score implies a higher level of disclosure. This construction of the disclosure score is similar to Botosan (1997) and Zechman (2010).

A common problem with self-constructed disclosure scores is that the construction involves the researcher's subjective assessment of the disclosed information. To minimize the subjectivity in creating the pending lawsuit disclosure score, I rely on the disclosure items proposed by the FASB exposure drafts on Disclosure of Certain Loss Contingencies and apply stringent rules to classify the individual items (see the detailed rules in Appendix C). Furthermore, I follow the approach in Bens (2002) and use a group of security analysts and lawyers to verify the objectivity of the rules related to the disclosure items. Specifically, I solicit ten MBA students with prior work experience as analysts and/or lawyers, and provide them with the detailed rules on how to identify the items contained in the score. I then ask each student to read a sample of five pending lawsuit disclosures. Each disclosure is read by five students. After obtaining their scores, I estimate the correlations of the scores for the same pending lawsuit disclosures. The mean of the pair-wise correlations is 0.80 for the items and 0.93 for the aggregate scores, after removing the lowest and highest correlations. The high correlation of the litigation disclosure scores assigned by the different students suggests that the construction of the disclosure score does not involve an excessive amount of researcher subjectivity.

As shown in Table 2, conditional on disclosing any information about pending lawsuits, the sample size drops to 213 bonds issued by 75 defendant firms. The average of the disclosure score *Dscore* is 3.97, i.e., on average, firms disclose about four items regarding the involvement and potential impact of their pending lawsuits.

3.2. Research Design

3.2.1. Pending Lawsuit Disclosure and Ex Post Realized Litigation Loss

related to the non-financial impact of the lawsuit. As such, the item captures the details of the non-financial impact of the lawsuit (see Item 15 in Appendix C).

To analyze the association between pending lawsuit disclosure and ex post realized litigation loss, I estimate the following regression:

$$\begin{aligned}
 \textit{Realized Litigation Loss} = & \\
 & \alpha + \beta \textit{Disclosure Variable} + \gamma \textit{Firm Controls} + \textit{Industry Fixed Effects} \\
 & + \textit{Year Fixed Effects} + \varepsilon.
 \end{aligned} \tag{1}$$

The dependent variable is the realized litigation loss, which is measured as a firm’s average litigation loss across pending lawsuits divided by total assets. Information about litigation losses is taken from the Audit Analytics database. In Section 4, the explanatory variable of interest is $\textit{Disclose}_{pct}$. $\textit{Disclose}_{pct}$ is the number of pending lawsuits disclosed by the firm divided by the total number of pending lawsuits and captures the firm’s decision whether to disclose its pending lawsuits. In Section 5, the explanatory variable of interest is \textit{Dscore} . \textit{Dscore} is the average number of proprietary items that the firm has provided for its lawsuits and reflects the firm’s decision regarding the level of pending lawsuit disclosure.²² Note that all firms included in the regressions are involved in ongoing lawsuits, so all firms could decide to disclose information regarding these lawsuits.

I also include a set of variables that may affect the realized litigation loss. For example, the legal literature argues that larger firms are more likely to be targeted in lawsuits and suffer from greater damages than smaller firms (Coffee 2006). Hence, I control for firm size, measured as the logarithm of the market value of equity. I also add return on assets (\textit{ROA}) in the regressions to take into account that firms with better prior performance face a less negative market reaction to the lawsuits and are in a better position to win the lawsuits (Ferris and Pritchard 2001). Furthermore, following Cheng et al. (2010), I use the firm’s leverage ratio ($\textit{Leverage}$) to proxy for agency costs. The intuition is that highly leveraged firms have strong incentives to undertake risky projects and engage in accounting frauds/earnings management to avoid debt covenant violations. As such, these firms are more likely to be sued and suffer from greater litigation losses. Hence, I expect the leverage ratio to be positively correlated with the realized litigation loss. In addition,

²² My findings are robust to defining $\textit{Disclose}_{pct}$ as an indicator variable that takes the value 1 if a firm discloses any of its pending lawsuits and \textit{Dscore} as the maximum disclosure score across lawsuits.

firms with volatile performance are more likely to experience a sudden drop in their share price and are thus more susceptible to costly shareholder lawsuits. Therefore, I also control for cash flow volatility (*CF VOL*) in the regressions.

3.2.2. Pending Lawsuit Disclosure and Bond Yields

To test the effect of pending lawsuit disclosure on bond yields, I estimate the following regression:

$$\begin{aligned}
 \text{Yield Spread} = & a + \beta \text{ Disclosure Variable} + \gamma \text{ Firm Controls} + \delta \text{ Bond Controls} \\
 & + \text{ Industry Fixed Effects} + \text{ Year Fixed Effects} + \text{ Underwriter Fixed Effects} \\
 & + \varepsilon.
 \end{aligned} \tag{2}$$

The dependent variable is a bond's yield spread, which is measured as the difference between the bond's yield at issuance and the yield of a Treasury bill with matched maturity. *Yield Spread* represents the risk premium that investors require to hold the issuer's bond, taking into account the effect of business cycles. The disclosure variables are as described in Section 3.2.1. I control for firm and bond characteristics that explain differences in the yield spread. Specifically, I include the accrued litigation liabilities (*Legal Provision*) to capture incremental information about the pending lawsuits beyond the disclosure of these lawsuits.²³ I also include return on assets (*ROA*) to control for a firm's ability to repay the bond and the coupons. Minton and Schrand (1999) show that firms with a higher level of cash flow volatility have a higher cost of debt. Thus, I add the variable *CF VOL* as a control variable. Furthermore, I include a measure for accounting quality (*Discretionary Accruals*) in the regressions since Bharath, Sunder, and Sunder (2008) demonstrate that accounting quality affects debt contract terms. One potential concern is that the disclosure of pending lawsuits may be correlated with the overall information quality of firms' SEC filings or alternative information sources such as analysts. To mitigate this concern, I control for the readability of the SEC filings using the FOG index developed in Li (2008) and the number of analysts following the firm (*Analyst Following*).

²³ 29 firms recognize the pending lawsuits as provisions on their balance sheet.

Regarding bond characteristics, I include bond maturity and bond size in the regressions as potential losses to bond investors increase with the time horizon of repayments and the offering amounts. Furthermore, rating agencies provide professional assessments of the credit risk of each firm, so I include the crediting rating of each bond (*Bond Rating*) in the regressions. In addition, I add underwriter fixed effects in the regressions since the underwriters' reputation plays an important role in the bond issuing process.

To account for possible shifts in debt financing over time caused by changes in general capital market conditions, I also include year fixed effects in all regressions. Furthermore, I add two-digit SIC (Standard Industrial Classification) fixed effects to control for any unobserved, time-invariant industry characteristics. All standard errors are clustered at the firm level to adjust for heterogeneity and within firm correlation. All continuous variables are winsorized at the 1st and 99th percentiles.

4. The Effects of the Decision to Disclose Pending Lawsuits on Bond Yields

4.1. Ex Post Litigation Loss and Decision to Disclose Lawsuits

In H1a, I hypothesize that if bond investors perceive a firm's decision to disclose pending lawsuits as a signal that the potential losses of the lawsuits are material and reasonably possible, then investors may require a higher yield. If this conjecture is true, one would expect that the firms that disclose their pending lawsuits experience larger realized litigation losses.

To test this hypothesis, I examine the relation between the decision to disclose a pending lawsuit and the ex post realized loss due to the lawsuit.²⁴ Specifically, I regress the average realized litigation losses across lawsuits on the disclosure variable $Disclose_{pct}$, controlling for other potential factors that influence the ultimate outcome of the lawsuits. Table 3 presents the results. The coefficient on the variable $Disclose_{pct}$ is positive and statistically significant at the 5% level, indicating that firms that disclose a higher proportion of their pending lawsuits experience larger litigation losses. In terms of economic significance, a one standard deviation increase in the fraction of lawsuits disclosed (i.e., 28%) is associated with an increase of

²⁴ I thank an anonymous referee for this suggestion.

about 65% of the realized litigation losses compared to the sample mean. This result supports the argument that the decision to disclose pending lawsuits is mainly driven by mandatory disclosure requirements. As a consequence, I expect bond investors to interpret the disclosure of pending lawsuits as a signal that the resulting losses would be material and are reasonably possible.

4.2. The Decision to Disclose Lawsuits and Bond Yields

To test whether and how bond investors take into account firms' decisions to disclose pending lawsuits, I focus on bond yield spreads, since they represent the risk premium accepted by investors. Specifically, I regress the yield spread on the disclosure variable $Disclose_{pct}$, controlling for other variables as specified in Equation (2).

Table 4 presents these results. In column (1), I only include firm-level control variables in the regression that are related to yield spreads to mitigate the concern that different bond terms may be simultaneously determined (Qian and Strahan 2007). Column (2) shows the results of the full regression that includes firm-level and bond-level controls. The coefficient on the variable $Disclose_{pct}$ is positive and significant at conventional levels in both columns. In terms of economic significance, based on column (2), a one standard deviation increase in the percentage of lawsuits disclosed is associated with an increase of yield spreads by ten basis points, corresponding to about five percent of the average yield spread in the sample. Among the control variables, the coefficient on the variable *Legal Provision* is positive and significant in column (2), indicating that bond investors also take into account the accrued litigation provisions. Furthermore, consistent with Bharath, Sunder, and Sunder (2008), firms with higher levels of discretionary accruals pay higher yields. Other control variables also load with the expected signs. For instance, firms with higher leverage, higher cash flow volatility, and a low bond rating have higher yields, in line with the expectation that high credit risk is compensated with a high yield.

The results in columns (1) and (2) of Table 4 suggest that bond investors perceive firms' decisions to disclose their pending lawsuits as a signal that the potential losses of the lawsuits are material and reasonably possible. Thus, bond investors demand a higher yield. To provide further evidence for the interpretation of these results, I next examine the cross-sectional variation in the effect of firms' decisions

to disclose pending lawsuits on bond yields. Columns (3) and (4) of Table 4 present the corresponding results.

In column (3), I interact the variable $Disclose_{pct}$ with the indicators *High Analyst Following* and *Low CF VOL*, respectively. *High Analyst Following* is an indicator that takes the value 1 if a firm's analyst following is above the sample median and 0 otherwise. *Low CF VOL* is an indicator that takes the value 1 if a firm's cash flow volatility is below the sample median and 0 otherwise. The coefficient on $Disclose_{pct}$ remains positive and statistically significant. Moreover, the coefficient on the interaction term $Disclose_{pct} * High Analyst Following$ is negative and statistically significant at the 1% level. This result indicates that the effect of the disclosure decision on bond yields is weaker if investors can obtain information about lawsuits through alternative channels such as analysts.²⁵ In column (4), the interaction term $Disclose_{pct} * Low CF VOL$ is negative and statistically significantly at the 1% level. This result shows that the effect of the disclosure decision on bond yields is weaker when firms have a lower probability of default,²⁶ consistent with the argument that investors attach less importance to the disclosure of pending lawsuits when the firms' bankruptcy risk is low.

Next, I construct two alternative measures of the decision to disclose lawsuits to demonstrate the robustness of the effect on bond yields. First, instead of calculating the percentage of lawsuits disclosed, I simply count the number of lawsuits disclosed ($Disclose_{count}$). Second, to capture the importance of the lawsuits disclosed, I assign more weight to lawsuits that result in larger realized losses. Specifically, I measure $Disclose_{vw}$ as the sum of realized litigation losses for disclosed pending lawsuits scaled by the sum of realized litigation losses for all pending lawsuits.

²⁵ A potential concern is that analyst following captures not only alternative information sources but also unobserved firm or lawsuit characteristics. To mitigate this concern, I include an interaction term between the variables $Disclose_{pct}$ and *High Analyst Following* in the regression using the realized litigation losses as the outcome variable. If analyst following reflects unobserved firm or lawsuit characteristics, the interaction term should be significantly related to the outcome of the lawsuits. I find that the interaction term between $Disclose_{pct}$ and *High Analyst Following* is insignificant (see Appendix A.3). I thank an anonymous referee for suggesting this test.

²⁶ Cash flow volatility is a common proxy for the probability of default in the finance literature (e.g., Colla, Ippolito, and Li 2013).

Table 5 reports the results for these robustness tests. Columns (1) and (2) show that the effect of the decision to disclose lawsuits on bond yields is robust to using the simple count of disclosed lawsuits. Specifically, the coefficient on $Disclose_{count}$ is positive and significant at the 1% level with or without bond-level controls. Columns (3) and (4) present the effect of the decision to disclose lawsuits on bond yields using the value-weighted disclosure variable ($Disclose_{vw}$). The positive association between the decision to disclose lawsuits and bond yields stays robust when I attach more weight to lawsuits with larger realized litigation losses.

4.3. Two-stage Least Squares (2SLS) Estimation

A potential concern regarding the previous analysis is that firms' decisions to disclose pending lawsuits may be driven by unobserved characteristics that are also related to bond yields. To mitigate this concern, I conduct a two-stage least squares (2SLS) IV estimation.²⁷ Specifically, I use the average number of co-defendants (*Co-defendants*) across a firm's pending lawsuits as an instrument for $Disclose_{pct}$. The intuition is that a larger number of co-defendants makes it more difficult to assess a firm's expected share of the total litigation costs. As a consequence, firms are less likely to disclose information about pending lawsuits with more co-defendants. Consistent with this argument, Barth, McNichols, and Wilson (1997) show that the number of co-defendants is negatively related to the disclosure of environment lawsuits.

To be a valid instrument, *Co-defendants* must satisfy two conditions. First, it must be correlated with firms' disclosure decisions (i.e., it must be relevant). The first stage of the 2SLS estimation shows that this is indeed the case. Second, *Co-defendants* must be uncorrelated with the error term in the regression of interest (i.e., it must satisfy an exclusion restriction). This condition cannot be tested. The key identifying assumption that is maintained throughout the IV estimation is thus that the average number of co-defending firms is not correlated with unobserved yield determinants after partialing out the effects of the firm- and bond-characteristics and fixed effects which are included in the regression.

²⁷ An alternative would be a Heckman selection model, which has the advantage of accounting for unobserved factors that can lead to self-selection biases (Tucker 2010). However, since the variable of interest $Disclose_{pct}$ is a continuous variable, I use a 2SLS estimation instead.

Table 6 presents the results. As shown in column (1), the variable *Co-defendants* is negatively and significantly related to the decision to disclose. The F-statistic on the instrument in the first stage is 50.024, and far exceeds the threshold of ten suggested by Stock, Wright, and Yogo (2002) to guard against weak instruments. Column (2) presents the results of the second stage of the 2SLS estimation. The coefficient on the variable *Disclose_{pet}* remains positive and significant at the 10% level.

4.4. Non-pricing Bond Contract Terms

I next examine whether lawsuit disclosure also affects non-pricing bond terms. Because bond contracts consist of a package of pricing and non-pricing terms, bond investors can use non-pricing terms to protect their interests. In particular, bond contracts can contain default clauses pertaining to court judgments that give bond investors the right to demand principal repayment if the firm is unable to pay its litigation losses. On the one hand, these clauses are contractual mechanisms that can serve as an early signal of increased default risk.²⁸ On the other hand, these clauses can be costly to both issuing firms and bond investors. For issuing firms, defaulting on a small litigation claim can trigger a large amount of debt repayment; for bond investors, due to dispersed ownership, renegotiation is costly in the case of default. Hence, it is ex ante unclear whether firms that disclose their lawsuits are more or less likely to include default clauses pertaining to court judgments in the bond prospectus.

Table 7 presents the results of a regression of the effects of lawsuit disclosure on bond size, maturity, covenants, and default clauses pertaining to court judgments. *Bond Size* is the offering amount scaled by total assets. I calculate maturity as the difference in years between the offering and maturity dates. *Bond Covenant_{Yes/No}* is an indicator variable that takes the value 1 if any covenants are included in a bond issue and 0 otherwise.²⁹ Finally, I assign the value 1 to the indicator variable *Court Judgment_{Yes/No}* if a bond

²⁸ For example, the prospectus in the Registration Form S3 of Standard Pacific Corp., August 1, 2005, specifies that the following event would trigger default: “Entry of a final judgment for the payment of money against the company or any restricted subsidiary in an amount of 5 million dollars or more which remains undischarged or unstayed for a period of 60 days after the date on which the right to appeal such judgment has expired or becomes subject to an enforcement proceeding.”

²⁹ The indicator variable *Bond Covenant* captures the trend of “covenant lite” bonds, which are issued with few or even zero covenants.

prospectus includes a default clause pertaining to a court judgment. I include the same explanatory variables in the regression specifications as in Equation (2).

The coefficient estimates on the variable $Disclose_{pct}$ are insignificant in columns (1) - (3) of Table 7 using the bond size, maturity, and the indicator for covenants as dependent variables. However, in column (4), the coefficient of $Disclose_{pct}$ is positive and statistically significant at the 5% level. This result shows that firms that disclose their pending lawsuits are more likely to include default clauses pertaining to court judgments in the bond prospectuses. The economic magnitude is significant: A one standard deviation increase in the percentage of lawsuits disclosed increases the likelihood of including such default clauses by 3%, which represents an increase of 41% compared to the mean likelihood of including such clauses in the sample. The finding that the decision to disclose pending lawsuits affects only the likelihood of including default clauses related to court judgments but not other non-pricing terms is consistent with non-pricing terms substituting for each other and bond investors demanding specific contractual mechanisms to minimize the potential losses that could arise from litigation.

5. The Effects of the Level of Pending Lawsuit Disclosure on Bond Yields

To examine the effects of the level of disclosure on bond terms, in this section, I focus on the subsample of firms that have made the decision to disclose their pending lawsuits (i.e., $Disclose_{pct} > 0$).

5.1. Ex Post Realized Litigation Loss and the Level of Disclosure

In H2a, I posit that bond investors are likely to relate the level of disclosure (i.e., the amount of disclosed information) to firms' incentives for voluntary disclosure since the accounting standards provide little guidance on the disclosure amount and content. Specifically, within the subsample of firms that disclose their lawsuits, the severity of the lawsuits is likely to vary. Bond investors may associate a higher disclosure level with a lower likelihood of withholding unfavorable information (i.e., Verrecchia 1983, 2001, Dye 1985). In that case, one would expect firms that disclose more information about pending lawsuits to experience lower litigation losses ex post.

In Table 8, I present the results of a regression of the average realized litigation loss across lawsuits on the disclosure level in the subsample of firms that disclose any information about their pending lawsuits.³⁰ The coefficient on *Dscore* is negative and statistically significant at the 1% level, suggesting that firms' incentives for voluntary disclosure drive the decision how much information to disclose. This result is in line with the argument that bond investors are likely to associate the level of disclosure with firms' voluntary disclosure incentives.

5.2. The Level of Disclosure and Bond Yields

To provide direct evidence how bond investors take into account firms' incentives for voluntarily disclosing lawsuit information, I examine the effect of the level of disclosure on the bond yields of defendant firms.

Table 9 presents these results. In column (1), the coefficient estimate on *Dscore* is negative and statistically significant at the 1% level. The economic magnitude is significant: Disclosing an additional proprietary item proposed by the FASB exposure draft on litigation contingency disclosure reduces the yield spread by about 19 basis points. This result provides support for the hypothesis that bond investors accept a lower yield from firms that disclose more information about their lawsuits (conditional on disclosing any information at all).

The variable *Dscore* captures the average number of proprietary items disclosed about a firm's pending lawsuits. To show that the result is robust to alternative measures of the disclosure level, I define *Dscore_{All}* as the average number of all items disclosed about a firm's pending lawsuits. Column (2) of Table 9 shows that the coefficient on *Dscore_{All}* is negative and statistically significant, although both the economic and statistical magnitudes are weaker than those of *Dscore* in column (1). This is consistent with the argument that not all information disclosed by a firm regarding its pending lawsuits is proprietary and useful from investors' perspective.

³⁰ I thank an anonymous referee for this suggestion.

Next, I directly compare the impact of proprietary versus non-proprietary information about firms' pending lawsuits on the bond yields. Specifically, I divide the overall disclosure level ($Dscore_{All1}$) into the proprietary component ($Dscore$) and non-proprietary component ($Dscore_{non-proprietary}$) and include both variables in the same regression. Column (3) of Table 9 shows that the coefficient on the proprietary disclosure measure $Dscore$ is negative and statistically significant, while the coefficient on the non-proprietary disclosure measure $Dscore_{non-proprietary}$ is not. This result provides further evidence that investors care more about firms' proprietary information regarding the pending lawsuits.

Finally, bond investors may attach more importance to disclosed items that contain quantitative information. Following Botosan (1997), I reconstruct the disclosure score by adding an additional point to $Dscore$ each time a quantitative item is disclosed, such as the estimated loss. Column (4) of Table 9 shows that the coefficient on $Dscore_{All2}$ remains negative and significant at the 1% level.

Taken together, I find strong evidence consistent with H2b, in which I posit that investors accept lower bond yields from firms with a higher level of lawsuit disclosure conditional on disclosing any information.

5.3. 2SLS Estimation

A common concern in the disclosure literature is that the amount of voluntarily disclosed information may be driven by omitted variables that also affect the outcome variable. To mitigate this endogeneity concern, I conduct an instrumental variable 2SLS estimation. As in the analysis pertaining to the decision to disclose pending lawsuits, I use the average number of co-defending firms as an instrument for the level of disclosure.

Table 10 displays the results. In the first stage, the coefficient of the variable *co-defendants* is negative and strongly correlated with the disclosure score. The F-statistic on the instrument in the first stage is 13.886 and exceeds the threshold of ten suggested by Stock, Wright, and Yogo (2002). Column (2) shows the results of the second stage. The estimated coefficient on $Dscore$ is negative and statistically significant at the 1% level. This result is consistent with H2b and corroborates the earlier findings: High levels of disclosure decrease the yield spreads of newly issued bonds.

5.4. Heckman Selection Model

Firms choose whether to disclose their pending lawsuits. Hence, the observations that enter the subsample of firms that decide to disclose lawsuits may be subject to a self-selection bias. To mitigate the self-selection concern, I employ a Heckman selection model. Specifically, I first take the full sample of firms that are involved in lawsuits in Section 4 and estimate the factors that affect the decision whether or not to disclose any lawsuits. I then add the inverse Mills ratio from the first stage to the second stage where I estimate the effect of the disclosure level on the yield spreads in the subsample of firms that disclose lawsuits.

Table 11 presents the corresponding results. The first column shows the first stage probit regression. Consistent with the argument that the number of co-defending firms is negatively related to firms' decision to disclose lawsuits, the coefficient estimate on *Co-defendants* is negative and statistically significant. The second column presents the second-stage OLS regression. The coefficient on *Inverse Mills Ratio* is positive and statistically significant. This result indicates that, consistent with the results shown in Section 4, firms that disclose lawsuits are associated with higher yield spreads. More importantly, after controlling for the self-selection bias by adding the inverse Mills ratio, the negative relation between the level of disclosure and yield spreads still holds. Specifically, the coefficient on *Dscore* is negative and statistically significant at the 1% level.

5.5. Non-pricing Bond Contract Terms

I now examine whether bond investors also adjust the non-pricing terms based on the level of lawsuit disclosure. Table 12 shows the results pertaining to the effect of the disclosure level on the bond size, maturity, likelihood of including covenants, and default clauses related to court judgments.

The coefficient estimates on *Dscore* in columns (2) and (4) of Table 12 are insignificant, indicating that the amount of disclosed information does not affect bond maturity or the likelihood of including default clauses. However, the coefficient estimates on *Dscore* in columns (1) and (3) are negative and significant at the 5% level. This result suggests that bond investors are willing to lend more and are less likely to impose covenants on firms with higher levels of disclosure. This finding provides further support for the

argument that bond investors relate the level of pending lawsuit disclosure to firms' incentives for voluntary disclosure and reward the firms with more favorable bond terms.

6. Conclusion

In this paper, I provide evidence on firms' disclosure policies regarding pending lawsuits. Focusing on the bond market, I find that firms that disclose a higher proportion of their pending lawsuits are charged with higher bond yields and are also more likely to include default clauses pertaining to court judgments in their bond prospectuses. However, conditional on the disclosure of pending lawsuits, bond investors reduce the yields for firms that disclose more information. This evidence suggests that bond investors can distinguish firms' mandatory and voluntary disclosure incentives and adjust bond terms accordingly. Despite its small sample size, the study has broader implications for our understanding of how investors respond to the differential effects of accounting standards and managerial incentives embedded in the same disclosure.

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Appendix A.1: Correlation Table

This table presents the Pearson correlations among the main variables. Numbers in bold denote significance at the 10% level. All variables are defined in Appendix B.

	Disclose _{pct}	Dscore	Real. Litig. Loss	Legal Provision	Lev.	Firm Size	ROA	Tang.	CF VOL	Dis. Accruals	Analy. Following	FOG Index	Yield Spread	Maturity	Size	Rating	Cov. _{Yes/No}
Real. Litig. Loss	0.08	-0.16															
Legal Provision	0.01	0.09	0.00														
Lev.	0.19	-0.16	0.29	0.05													
Firm Size	-0.22	0.00	-0.11	-0.07	-0.55												
ROA	-0.29	0.08	-0.04	-0.02	-0.34	0.39											
Tang.	-0.12	-0.11	-0.05	0.07	0.12	-0.04	0.19										
CF VOL	-0.11	-0.04	0.12	-0.03	-0.08	0.09	0.39	-0.05									
Dis. Accruals	0.07	-0.07	0.02	0.00	0.00	0.16	-0.01	0.00	0.09								
Analy. Following	-0.10	-0.04	-0.07	-0.09	-0.40	0.66	0.30	0.00	0.08	0.16							
FOG Index	0.14	0.08	0.09	-0.01	0.11	-0.11	-0.16	-0.08	-0.11	0.10	-0.02						
Yield Spread	0.23	-0.11	0.26	0.03	0.57	-0.64	-0.39	-0.06	0.02	-0.02	-0.39	0.10					
Maturity	0.00	-0.07	-0.04	0.03	-0.04	0.03	-0.05	0.07	-0.03	0.03	0.03	0.06	0.00				
Size	0.14	0.16	0.05	0.00	0.20	-0.44	-0.08	-0.17	0.08	-0.04	-0.25	-0.02	0.37	-0.05			
Rating	0.35	-0.01	0.13	0.00	0.65	-0.76	-0.58	-0.13	-0.08	-0.01	-0.45	0.21	0.76	-0.07	0.44		
Cov. _{Yes/No}	0.23	-0.16	0.05	-0.07	0.33	-0.44	-0.37	-0.21	0.03	0.01	-0.22	0.22	0.41	0.05	0.30	0.62	
Court Judg. _{Yes/No}	0.10	0.06	0.01	0.02	0.06	-0.17	-0.15	-0.08	0.13	-0.02	-0.21	0.02	0.08	-0.01	0.12	0.19	0.15

Appendix A.2: Is the Accessing of the Bond Market Anticipated?

This table reports the OLS result of whether the access to the bond market affects the disclosure of pending lawsuits. $Disclose_{pct}$ is the number of lawsuits disclosed divided by the total number of pending lawsuits. $Bond$ takes the value 1 if a firm accesses the bond market in the next quarter and 0 otherwise. Standard errors are clustered at the firm level. t-statistics are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively. All variables are defined in Appendix B.

	Dependent Variable: $Disclose_{pct}$
Bond	0.003 (0.078)
Legal Provision	-0.051 (-0.167)
Leverage	-0.030 (-0.519)
Firm Size	-0.036*** (-4.992)
ROA	-0.235*** (-4.491)
Tangibility	-0.243*** (-3.768)
CF VOL	0.017 (0.290)
Discretionary Accruals	0.002 (1.053)
FOG Index	0.008* (1.896)
Analyst Following	0.004* (1.719)
Co-defendants	-0.001** (-2.299)
Industry Fixed Effects	Yes
Year Fixed Effects	Yes
Number of Observations	5,756
Adjusted R-squared	0.189

Appendix A.3: Alternative Information Channel

This table presents the result of the OLS regression of the ex post realized litigation loss on the disclosure variable $Disclose_{pct}$, including the interaction term between $Disclose_{pct}$ and *High Analyst Following*. *Realized Litigation Loss* is the average realized loss across lawsuits divided by total assets. $Disclose_{pct}$ is the number of lawsuits disclosed divided by the total number of pending lawsuits. *High Analyst Following* is an indicator variable that takes the value 1 if a firm's analyst following is above the sample median and 0 otherwise. The definitions of the other variables are in Appendix B. Standard errors are clustered at the firm level. *t*-statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Dependent variable: Realized Litigation Loss	
Disclose _{pct}	0.009*** (2.974)
Disclose _{pct} * High Analyst Following	-0.007 (-1.546)
Legal Provision	-0.007 (-0.223)
Leverage	0.044*** (9.927)
Firm Size	0.000 (0.459)
ROA	-0.002 (-0.175)
Tangibility	0.009* (1.654)
CF VOL	0.141*** (3.645)
Discretionary Accruals	-0.000 (-0.298)
FOG Index	0.001*** (4.307)
Analyst Following	0.000 (0.996)
Industry Fixed Effects	Yes
Year Fixed Effects	Yes
Number of Observations	838
Adjusted R-squared	0.239

Appendix B: Variable Definitions

Variable	Definition
Firm Level	
<i>Disclose_{pet}</i>	Number of lawsuits disclosed divided by the total number of pending lawsuits in the 10-K/Q filing for the fiscal quarter prior to a bond issuance.
<i>Dscore</i>	Average number of proprietary items (i.e. involvement of the lawsuit; potential loss and impact of the lawsuit) disclosed by a firm across its lawsuits in the 10-K/Q filing for the fiscal quarter prior to a bond issuance.
<i>Realized Litigation Loss</i>	Average litigation losses across lawsuits divided by total assets.
<i>Legal Provision</i>	Amount accrued for litigation contingencies on the balance sheet scaled by total assets.
<i>Leverage</i>	Long-term debt divided by total assets.
<i>Firm Size</i>	Logarithm of the market value of equity.
<i>ROA</i>	Operating income before depreciation scaled by total assets.
<i>Tangibility</i>	Net plant property and equipment divided by total assets.
<i>CF VOL</i>	Standard deviation of quarterly cash flows from operations over the past twelve quarters.
<i>Discretionary Accruals</i>	Abnormal accruals obtained using the modified Jones' model from Dechow, Sloan, and Sweeny (1995).
<i>FOG Index</i>	Readability index from Li (2008).
<i>Analyst Following</i>	Number of analysts following a firm.
<i>Co-defendants</i>	Average number of co-defending firms involved in lawsuits.
Bond Level	
<i>Yield Spread</i>	Difference between a bond issue's offering yield and the yield of a Treasury bill with matched maturity.
<i>Bond Maturity</i>	Difference between a bond issue's maturity date and its offering date (in years).
<i>Bond Size</i>	Offering amount of a bond issue divided by total assets.
<i>Bond Rating</i>	Numeric values assigned to bond ratings offered by S&P's or Moody's, ranging from 1 to 20 with the AAA rating equal to 1.
<i>Bond Covenant_{Yes/No}</i>	Indicator variable equal to 1 if a bond issue has covenants, and 0 otherwise.
<i>Court Judgment_{Yes/No}</i>	Indicator variable equal to 1 if a bond prospectus contains the event of default clause pertaining to court judgments and 0 otherwise.

Appendix C: The Elements and Construction Guidelines of the Disclosure Score

Elements of the Score

Each item within a category receives a score of 1 or 0 based on whether the firm provides the information in its 10-K/Qs regarding a particular lawsuit (except for Item 15).

- I. Facts about the lawsuit:
 1. Case filing date
 2. Name of the court
 3. Docket number
 4. Name(s) of the plaintiff(s)

- II. The contentions of the parties:
 5. Legal or contractual basis of the plaintiff's claim
 6. Claim amount
 7. Types of compensation that the plaintiff is seeking
 8. Defendant's response to the claim
 9. Contention of the defense

- III. The evolution of the lawsuit:
 10. Current status
 11. Next steps
 12. Anticipated timing of resolution

- IV. Potential loss and impact of the lawsuit:
 13. Qualitative assessment of the most likely outcome
 14. Estimated loss
 15. Potential non-financial impact
 16. Insurance coverage
 17. Accrued amount

Construction Guidelines

1. Case filing date (the date on which a lawsuit is filed with a court)
 - a. Only counts if the specific month and year of the lawsuit filed is known.
 - b. Scenario A: "In 2000, Company A sued us..." does not count.
 - c. Scenario B: "On October 2000, Company A sued us..." counts.
 - d. Scenario C: "On December 20, 2001, Company A sued us..." counts.

2. Name of the court (i.e., the federal court in the Southern District of New York)

3. Docket number (a unique number that identifies a specific case on the court's calendar)

4. Name(s) of the plaintiff(s)
 - a. If it is a class action suit (involving a group of plaintiffs), it counts if the representative of the plaintiffs is known or there is a description of the plaintiffs, i.e., "an alleged class of all persons who reside within a one-mile radius of an industry facility owned by us..."
 - b. If it is not a class action suit, it only counts if the specific name of the plaintiff is mentioned. For example, "A financial broker filed against us..." does not count.
 - c. You can also find the name of the plaintiff in the case title, i.e., CSI Investment et. al. v. Cendant et al.

5. The legal or contractual basis of a plaintiff's claim (why the plaintiff initiated the lawsuit)
 - a. Usually, the description of this item contains the word "allege".
 - b. Example: "The suit alleges infringement of United States Patent No. 4.706, 121, which relates to certain electronic program guide functions."
6. The claim amount
 - a. Example 1: "The plaintiffs seek a claim of \$10 million."
7. Types of compensation that the plaintiff is seeking
 - a. Example 2: "EchoStar seeks, among other relief, damages and an injunction."
 - b. Usually, the description of this item contains the word "seek."
8. The defendant's response to the claim (whether they believe the claim has merit, and whether they will defend against it)
 - a. Example 1: "Northwest believes the case to be without merit and intends to defend against the claim."
9. The contention of the defense (the defendant's argument as to why they believe the claim is without merit)
10. Current status (the current stage of the lawsuit)
 - a. This item usually describes the current stage of the suit, for example, whether it is in the pleading, discovery, summary judgment, or trial stages.
 - b. This item could contain words such as "not yet." For example, "The ruling has not yet been decided."
11. Next steps (what the defendant expects to happen in the near future regarding the lawsuit)
12. The anticipated timing (the anticipated time when the final decision could be made)
13. Qualitative assessment of the most likely outcome (whether the defendant believes the final ruling will be in his favor, or whether the lawsuit is likely to have a material effect on the defendant's financial position)
14. Estimated loss (how much loss the lawsuit could potentially incur)
 - a. A specific, estimated amount or an estimated range of amount
 - b. Summary judgment amount or verdict amount
15. Potential non-financial impact of the lawsuit (i.e., impact on the defendant's production, customer relationship, management's diversion of time and attention – each non-financial aspect scores "1"; this item can be more than 1).
 - a. Potential non-financial impact does not mean that this impact will not cause any indirect financial loss. It means the direct impact is non-financial.
 - b. "A material adverse effect on our financial position or results of operations" does not count.
16. Information about possible recovery from any insurance and indemnification arrangements (whether the potential loss of the lawsuit is insured)
17. Accrued amount for potential losses (whether the defendant has recognized the potential loss as an accrued amount in 10-K/Qs)

Appendix D: Examples of Pending Lawsuit Disclosure

W.R. Grace & Co

In addition, on February 22, 2000, a class action case was filed in U.S. District Court in Missoula, Montana (Tennison, et al. v. W.R. Grace & Co., et al) against Grace on behalf of all owners of real property situated within 12 miles from Libby, Montana that are improved private properties. The action alleges that the class members have suffered harm in the form of environmental contamination and loss of property rights resulting from Grace's former vermiculite mining and processing operations. The complaint seeks remediation, property damages and punitive damages. While Grace has not completed its investigation of the claims, it has no reason to believe that its former activities caused damage to the environment or property. At this time, the Company is not able to assess the extent of any possible liability related to this case.

Please enter "1" if a particular item is mentioned and "0" otherwise (except for item 15).

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Score	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0

Deltagen Inc.

In 1998, Lexicon Genetics Incorporated, one of our competitors, informed us that it was a coexclusive licensee under a patent covering certain isogenic DNA technology that may be used to modify the genome of a target cell. On May 24, 2000, Lexicon filed a case against us in the United States District Court for the District of Delaware. The complaint in the case alleges that our methods of making knockout mice infringe United States Patent No. 5,789,215, under which Lexicon claims to be an exclusive licensee. The complaint seeks a judgment that we have infringed this patent, a permanent injunction against further infringement of the patent and an award of damages in an unspecified amount that, under certain circumstances, may be tripled. On June 13, 2000, we responded to Lexicon's complaint by filing an answer and seeking a declaratory judgment in our favour. Our response seeks a judgment declaring the patent invalid and that we have not infringed and are not infringing the patent. We intend to defend the action vigorously.

The litigation against us is in the early stages and its outcome cannot be predicted. If Lexicon prevails and obtains an injunction, we would be required to obtain a license in order to continue to use the methods covered by the patent. We may not be able to obtain this license on favourable terms or at all. If we are unable to obtain a license, we would be required to redesign our processes to use alternative methods of making knockout mice and expect we would experience a significant disruption in our ability to generate revenue during this redesign period and as we develop a gene function database using these new methods. This redesign and development would involve significant time and costs, and the alternative methods available to us may not be as effective as our current methods. We estimate the average time from the date we begin to create a knockout mouse until the date the data from that knockout mouse is added to the gene function database to be 12 months. The addition of new data points to our gene function database could be significantly delayed. We may fail to attract customers for a gene function database that uses the alternative methods and the marketing of our existing database and DeltaSelect program may be significantly affected. If Lexicon prevails, we could also incur significant financial liabilities which could materially affect our business and operating results.

Please enter "1" if a particular item is mentioned and "0" otherwise (except for item 15).

Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Score	1	1	0	1	1	0	1	1	0	1	0	0	1	0	4	0	0

Table 1: Sample Selection

This table describes the sample selection process. The final sample comprises 838 bonds issued by 219 firms over the period from 2000 to 2008.

Step	Sample Selection	Number of Defendant Firms	Number of Lawsuits	Number of Bond Issues
1	Firms that were sued in a U.S. federal district court between 2000 and 2003	6,552	3,620	N/A
2	After matching the above firms with their 10-K/Q filings filed while the lawsuits are pending	1,850	2,176	N/A
3	After matching firms with GVKEYS from Compustat	1,525	1,848	N/A
4	After matching firms with Mergent FISD over 2000-2008	219	460	838

Table 2: Summary Statistics

This table presents summary statistics for the final sample, which consists of 838 bonds issued by 219 firms over the period from 2000 to 2008. The number of observations drops to 213 for the variable *Dscore* because the summary statistics are computed for the sub-sample of firms that disclose their pending lawsuits. The number of observations drops to 555 for the variable *Court Judgment_{Yes/No}* due to the limited availability of information on the default clause related to court judgment. See Appendix B for variable definitions.

Variable	N	Mean	P25	P50	P75	Std. Dev
<i>Disclose_{pct}</i>	838	0.14	0.00	0.00	0.14	0.28
<i>Dscore</i>	213	3.97	2.00	3.25	6.00	2.55
<i>Realized Litigation Loss (%)</i>	838	0.26	0.00	0.00	0.00	1.59
<i>Legal Provision</i>	838	0.00	0.00	0.00	0.00	0.02
<i>Leverage</i>	838	0.25	0.14	0.20	0.32	0.16
<i>Firm Size</i>	838	9.77	8.68	10.17	11.17	1.78
<i>ROA</i>	838	0.16	0.11	0.16	0.21	0.07
<i>Tangibility</i>	838	0.39	0.19	0.43	0.55	0.20
<i>CF VOL</i>	838	0.04	0.03	0.04	0.05	0.02
<i>Discretionary Accruals</i>	838	1.17	0.01	0.07	0.83	4.50
<i>Analyst Following</i>	838	17.00	12.00	20.00	22.00	9.00
<i>FOG Index</i>	838	19.49	18.08	19.17	20.40	1.82
<i>Co-defendants</i>	838	12.88	0.00	0.00	8.00	27.31
<i>Yield Spread (%)</i>	838	1.87	0.61	1.21	2.44	1.96
<i>Bond Maturity</i>	838	10.29	6.00	10.00	10.00	7.23
<i>Bond Size</i>	838	0.05	0.00	0.02	0.05	0.11
<i>Bond Rating</i>	838	6.93	4.00	6.00	9.00	4.57
<i>Bond Covenant_{Yes/No}</i>	838	0.66	0.00	1.00	1.00	0.48
<i>Court Judgment_{Yes/No}</i>	555	0.07	0.00	0.00	0.00	0.26

Table 3: Realized Litigation Loss and the Decision to Disclose Pending Lawsuits

This table presents the result of the OLS regression of the ex post realized litigation loss on the disclosure variable $Disclose_{pct}$. *Realized Litigation Loss* is the average realized loss across lawsuits divided by total assets. $Disclose_{pct}$ is the number of lawsuits disclosed divided by the total number of pending lawsuits. The definitions of the other variables are in Appendix B. Standard errors are clustered at the firm level. t -statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Dependent Variable: Realized Litigation Loss	
Disclose _{pct}	0.006** (2.552)
Legal Provision	-0.009 (-0.283)
Leverage	0.044*** (10.001)
Firm Size	0.000 (0.314)
ROA	-0.000 (-0.040)
Tangibility	0.009 (1.629)
CF VOL	0.138*** (3.552)
Discretionary Accruals	-0.000 (-0.304)
FOG Index	0.001*** (4.088)
Analyst Following	0.000 (0.523)
Industry Fixed Effects	Yes
Year Fixed Effects	Yes
Number of Observations	838
Adjusted R-squared	0.237

Table 4: Effect of the Decision to Disclose Pending Lawsuits on Bond Yields

This table presents the OLS results regarding the effect of the decision to disclose pending lawsuits on the bond yields. Column (1) reports the result controlling only for firm-level characteristics. Column (2) reports the main result, controlling for both firm-level and bond-level characteristics. Column (3) presents the cross-sectional result regarding analyst following. *High Analyst Following* is an indicator variable that takes the value 1 if a firm's analyst following is above the sample median and 0 otherwise. Column (4) presents the cross-sectional result regarding the cash flow volatility. *Low CF VOL* is an indicator variable that takes the value 1 if a firm's cash flow volatility is below the sample median and 0 otherwise. All other variables are defined in Appendix B. Standard errors are clustered at the firm level. *t*-statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Dependent Variable: Yield Spread			
	(1)	(2)	(3)	(4)
Disclose _{pct}	0.551*** (2.743)	0.342* (1.956)	1.001*** (3.283)	1.362*** (4.113)
Disclose _{pct} * High Analyst Following			-0.929*** (-2.633)	
Disclose _{pct} *Low CF VOL				-1.269*** (-3.616)
Legal Provision	-0.238 (-0.086)	4.089* (1.733)	3.903* (1.660)	4.133* (1.766)
Leverage	3.917*** (10.200)	1.705*** (4.652)	1.679*** (4.595)	1.603*** (4.394)
Firm Size	-0.562*** (-11.801)	-0.087* (-1.662)	-0.088* (-1.679)	-0.085 (-1.631)
ROA	-5.948*** (-5.980)	-0.660 (-0.691)	-0.421 (-0.440)	-0.453 (-0.478)
Tangibility	-0.395 (-0.841)	-0.244 (-0.584)	-0.236 (-0.567)	-0.261 (-0.632)
CF VOL	12.556*** (3.738)	6.923** (2.331)	6.180** (2.080)	2.594 (0.816)
Discretionary Accruals	0.036*** (3.202)	0.036*** (3.449)	0.036*** (3.470)	0.037*** (3.551)
FOG Index	0.031 (1.072)	-0.006 (-0.217)	-0.021 (-0.803)	0.007 (0.290)
Analyst Following	0.020*** (2.722)	0.006 (0.872)	0.000 (0.034)	0.004 (0.573)
Bond Maturity		0.031*** (5.596)	0.030*** (5.409)	0.032*** (5.856)
Bond Size		-0.215 (-0.453)	-0.101 (-0.213)	-0.177 (-0.377)
Bond Rating		0.361*** (15.509)	0.362*** (15.601)	0.357*** (15.394)
Industry Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Underwriter Fixed Effects	No	Yes	Yes	Yes
Number of Observations	838	838	838	838
Adjusted R-squared	0.597	0.716	0.718	0.720

Table 5: Decision to Disclose Pending Lawsuits and Bond Yields: Alternative Disclosure Measures

This table presents the OLS results regarding the effect of the decision to disclose pending lawsuits on the bond yields using alternative disclosure measures. Columns (1) and (2) reports the results using $Disclose_{count}$, measured as the number of lawsuits disclosed. Columns (3) and (4) reports the results using $Disclose_{vw}$, measured as the sum of realized litigation losses for disclosed pending lawsuits scaled by the sum of realized litigation losses for all pending lawsuits. All other variables are defined in Appendix B. Standard errors are clustered at the firm level. t -statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Dependent Variable: Yield Spread			
	(1)	(2)	(3)	(4)
Disclose _{count}	0.228*** (3.297)	0.170*** (2.653)		
Disclose _{vw}			0.415* (1.871)	0.446** (2.349)
Legal Provision	-0.174 (-0.063)	3.980* (1.690)	0.107 (0.039)	4.306* (1.828)
Leverage	3.823*** (9.917)	1.646*** (4.487)	3.874*** (9.969)	1.617*** (4.383)
Firm Size	-0.582*** (-12.146)	-0.101* (-1.910)	-0.561*** (-11.746)	-0.082 (-1.561)
ROA	-5.870*** (-5.909)	-0.644 (-0.676)	-5.974*** (-5.985)	-0.546 (-0.571)
Tangibility	-0.518 (-1.103)	-0.372 (-0.888)	-0.489 (-1.036)	-0.307 (-0.734)
CF VOL	11.804*** (3.512)	6.194** (2.078)	11.061*** (3.185)	5.192* (1.691)
Discretionary Accruals	0.032*** (2.844)	0.033*** (3.151)	0.038*** (3.322)	0.038*** (3.658)
FOG Index	0.018 (0.614)	-0.016 (-0.606)	0.027 (0.917)	-0.009 (-0.371)
Analyst Following	0.022*** (2.947)	0.007 (0.984)	0.019** (2.549)	0.004 (0.625)
Bond Maturity		0.031*** (5.643)		0.031*** (5.635)
Bond Size		-0.099 (-0.209)		-0.104 (-0.220)
Bond Rating		0.358*** (15.355)		0.365*** (15.730)
Industry Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Underwriter Fixed Effects	No	Yes	No	Yes
Number of Observations	838	838	838	838
Adjusted R-squared	0.599	0.717	0.595	0.716

Table 6: Decision to Disclose Pending Lawsuits and Bond Yields: IV Estimation

This table presents the result of a 2SLS IV estimation regarding the effect of the decision to disclose pending lawsuits on the bond yields. The dependent variable in the first stage is $Disclose_{pct}$, which is the number of lawsuits disclosed divided by the total number of pending lawsuits. The dependent variable in the second stage is the yield spread, which is the difference between bond yields and the yields of Treasury bills with matched maturities. The instrument is $Co-defendants$, the average number of co-defending firms involved in the lawsuits. All other variables are defined in Appendix B. Standard errors are clustered at the firm level. t -statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Dependent Variable:	Disclose _{pct}	Yield Spread
	First Stage	Second Stage
Disclose _{pct}		1.214* (1.87)
Legal Provision	0.323 (0.62)	2.719 (1.15)
Leverage	0.02 (0.25)	0.584 (1.62)
Firm Size	-0.001 (-0.05)	-0.168*** (-3.42)
ROA	-0.218 (-1.19)	-0.040 (-0.05)
Tangibility	-0.026 (-0.52)	-0.383* (-1.67)
CF VOL	-0.173 (-0.30)	9.235*** (3.49)
Discretionary Accruals	0.001 (0.25)	0.021** (2.08)
FOG Index	-0.009* (-1.75)	-0.033 (-1.36)
Analyst Following	0.001 (0.17)	0.003 (0.41)
Bond Maturity	-0.001 (-0.38)	0.030*** (5.39)
Bond Size	0.086 (0.87)	0.265 (0.58)
Bond Rating	0.013*** (2.83)	0.308*** (13.44)
Co-defendants	-0.003*** (-7.07)	
First Stage F-statistic	50.024	
Industry Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Underwriter Fixed Effects	Yes	Yes
Number of Observations	838	838
R-squared	0.340	0.688

Table 7: Effect of the Decision to Disclose Pending Lawsuits on Other Bond Terms

This table presents the OLS results regarding the effects of the decision to disclose pending lawsuits on other bond terms. *Bond Size* is the offering amount of a bond issue divided by total assets. *Bond Maturity* is the maturity of a bond in years. *Bond Covenant_{Yes/No}* is an indicator variable that takes the value 1 if a bond has covenants and 0 otherwise. *Court Judgment_{Yes/No}* is an indicator variable that takes the value 1 if bond prospectuses include default clauses related to court judgments. All other variables are defined in Appendix B. Standard errors are clustered at the firm level. *t*-statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Dependent Variable:	Bond Size	Bond Maturity	Bond Covenant _{Yes/No}	Court Judgment _{Yes/No}
	(1)	(2)	(3)	(4)
Disclose _{pet}	0.011 (0.807)	-0.585 (-0.504)	-0.046 (-1.228)	0.102** (2.322)
Legal Provision	0.015 (0.082)	4.232 (0.270)	-0.468 (-0.917)	-1.533 (-0.572)
Leverage	-0.108*** (-3.854)	-1.805 (-0.742)	-0.042 (-0.526)	-0.210 (-1.607)
Firm Size	-0.021*** (-5.385)	-0.676* (-1.943)	-0.005 (-0.411)	-0.041*** (-3.018)
ROA	0.313*** (4.288)	-17.947*** (-2.848)	0.251 (1.217)	0.256 (1.134)
Tangibility	-0.106*** (-3.322)	-3.051 (-1.103)	-0.186** (-2.064)	-0.078 (-1.269)
CF VOL	0.193 (0.839)	28.023 (1.424)	0.156 (0.242)	-2.536*** (-3.270)
Discretionary Accruals	0.001 (1.353)	0.106 (1.534)	-0.005** (-2.355)	0.003 (1.541)
FOG Index	-0.006*** (-3.019)	0.139 (0.822)	0.012** (2.158)	-0.028*** (-4.153)
Analyst Following	-0.000 (-0.730)	0.007 (0.150)	-0.001 (-0.346)	-0.004** (-2.356)
Bond Maturity	-0.000 (-0.234)		0.002 (1.440)	-0.001 (-0.975)
Bond Size		-0.736 (-0.234)	0.116 (1.137)	0.937*** (4.694)
Bond Rating	0.009*** (5.357)	-0.604*** (-3.948)	0.035*** (7.000)	0.023*** (4.152)
Industry Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Underwriter Fixed Effects	Yes	Yes	Yes	Yes
Number of Observations	838	838	838	555
Adjusted R-squared	0.439	0.076	0.773	0.386

Table 8: Realized Litigation Loss and the Level of Pending Lawsuit Disclosure

This table presents the result of the OLS regression of ex post realized litigation losses on the level of pending lawsuit disclosure. *Realized Litigation Loss* is the average realized loss across lawsuits divided by total assets. *Dscore* is the average number of proprietary items (i.e. involvement of the lawsuit; potential loss and impact of the lawsuit) disclosed by a firm across lawsuits. All other variables are defined in Appendix B. Standard errors are clustered at the firm level. *t*-statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Dependent Variable: Realized Litigation Loss	
Dscore	-0.003*** (-3.476)
Legal Provision	0.546 (1.487)
Leverage	0.052*** (4.609)
Firm Size	-0.003* (-1.874)
ROA	-0.005 (-0.192)
Tangibility	-0.023** (-2.075)
CF VOL	0.390*** (3.842)
Discretionary Accruals	-0.000 (-0.105)
FOG Index	0.001 (1.373)
Analyst Following	0.000 (0.569)
Industry Fixed Effects	Yes
Year Fixed Effects	Yes
Number of Observations	213
Adjusted R-squared	0.280

Table 9: Effect of the Level of Pending Lawsuit Disclosure on Bond Yields

This table presents the OLS results regarding the effects of the level of pending lawsuit disclosure on bond yields. Column (1) reports the main result using $Dscore$, which is the main measure for the level of disclosure. Columns (2), (3), and (4) present the results using alternative measures of the level of disclosure. $Dscore_{Alt1}$ is the average disclosure score for all items. $Dscore_{Non-proprietary}$ is average disclosure score for the non-proprietary items (i.e., facts and contentions). $Dscore_{Alt2}$ is average disclosure score after attaching an additional point to quantitative items such as claim amount, estimated amount, and accrued amount. All other variables are defined in Appendix B. Standard errors are clustered at the firm level. t -statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

	Dependent Variable: Yield Spread			
	(1)	(2)	(3)	(4)
Dscore	-0.189*** (-3.239)		-0.171** (-2.537)	
Dscore _{Alt1}		-0.159** (-2.343)		
Dscore _{Non-proprietary}			0.069 (0.570)	
Dscore _{Alt2}				-0.195*** (-3.181)
Legal Provision	2.159 (0.088)	-5.906 (-0.240)	3.846 (0.156)	2.395 (0.098)
Leverage	1.222 (1.246)	1.276 (1.279)	1.259 (1.278)	1.208 (1.229)
Firm Size	-0.455*** (-2.968)	-0.463*** (-2.929)	-0.439*** (-2.812)	-0.459*** (-2.985)
ROA	0.023 (0.010)	-0.588 (-0.242)	0.229 (0.095)	0.055 (0.023)
Tangibility	-0.619 (-0.523)	-0.468 (-0.389)	-0.624 (-0.526)	-0.713 (-0.600)
CF VOL	17.615** (2.169)	13.193 (1.62)	18.839** (2.238)	17.531** (2.157)
Discretionary Accruals	-0.001 (-0.055)	-0.001 (-0.045)	0.001 (0.053)	-0.002 (-0.088)
FOG Index	0.025 (0.460)	0.035 (0.637)	0.021 (0.380)	0.023 (0.421)
Analyst Following	0.030* (1.927)	0.036** (2.198)	0.028* (1.713)	0.032** (2.040)
Bond Maturity	0.021 (1.445)	0.021 (1.448)	0.020 (1.391)	0.021 (1.475)
Bond Size	-1.598 (-1.219)	-1.889 (-1.427)	-1.601 (-1.219)	-1.592 (-1.213)
Bond Rating	0.370*** (6.785)	0.370*** (6.679)	0.368*** (6.722)	0.373*** (6.826)
Industry Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Underwriter Fixed Effects	Yes	Yes	Yes	Yes
Number of Observations	213	213	213	213
Adjusted R-squared	0.719	0.710	0.718	0.718

Table 10: The Level of Pending Lawsuit Disclosure and Bond Yields: IV Estimation

This table presents the result of a 2SLS IV estimation regarding the effect of the level of pending lawsuit disclosures on bond yields. The dependent variable in the first stage is *Dscore*, which is the average number of proprietary items. The dependent variable in the second stage is the yield spread, which is the difference between bond yields and the yields of Treasury bills with matched maturities. All other variables are defined in Appendix B. Standard errors are clustered at the firm level. *t*-statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Dependent Variable:	Dscore	Yield Spread
	First Stage	Second Stage
Dscore		-0.703*** (-3.284)
Legal Provision	64.473** (2.03)	31.226 (1.113)
Leverage	-0.051 (-0.04)	0.245 (0.223)
Firm Size	-0.576*** (-2.82)	-0.661*** (-3.667)
ROA	-1.149 (-0.36)	0.964 (0.381)
Tangibility	-1.238 (-0.79)	-1.602 (-1.233)
CF VOL	28.075*** (2.63)	28.717*** (2.997)
Discretionary Accruals	-0.073*** (-2.78)	-0.038 (-1.462)
FOG Index	0.012 (0.17)	0.019 (0.343)
Analyst Following	-0.007 (-0.33)	0.032* (1.953)
Bond Maturity	0.026 (1.34)	0.029* (1.870)
Bond Size	4.467*** (2.64)	0.486 (0.303)
Bond Rating	-0.117 (-1.38)	0.398*** (6.848)
Co-defendants	-0.054*** (-3.73)	
First Stage F-statistic	13.886	
Industry Fixed Effects	Yes	Yes
Year Fixed Effects	Yes	Yes
Underwriter Fixed Effects	Yes	Yes
Number of Observations	213	213
R-squared	0.641	0.691

Table 11: Heckman Selection Model to Account for Firms' Decision to Disclose Lawsuits

This table presents the result of a Heckman selection model to account for firms' decisions to disclose any lawsuits. $Disclose_{Yes/No}$ is an indicator variable equal to "1" if a firm discloses at least one of its lawsuits and "0" if otherwise. *Inverse Mills Ratio* is the inverse mills ratio computed using the results of the first stage Probit model. All other variables are defined in Appendix B. Standard errors are clustered at the firm level. *t*-statistics (or *z*-statistics) are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Dependent Variable:	Disclose _{Yes/No}		Yield Spread
	First Stage		Second Stage
Dscore			-0.224*** (-4.455)
Legal Provision	1.026 (0.272)		35.633 (1.389)
Leverage	0.715 (1.575)		1.450 (1.630)
Firm Size	0.051 (0.744)		-0.398*** (-2.846)
ROA	-3.674*** (-3.184)		-2.129 (-0.951)
Tangibility	-0.542 (-1.572)		-1.420 (-1.329)
CF VOL	2.408 (0.684)		23.936*** (3.076)
Discretionary Accruals	0.107*** (4.828)		0.038 (1.499)
FOG Index	0.050 (1.519)		0.034 (0.682)
Analyst Following	-0.020** (-2.264)		0.028* (1.894)
Bond Maturity	0.001 (0.081)		0.021 (1.533)
Bond Size	-0.207 (-0.346)		-1.970* (-1.693)
Bond Rating	0.058* (1.947)		0.435*** (7.638)
Co-defendants	-0.015*** (-5.179)		
Inverse Mills Ratio			1.140*** (2.598)
Industry Fixed Effects	Yes		Yes
Year Fixed Effects	Yes		Yes
Underwriter Fixed Effects	Yes		Yes
Number of Observations	838		213
R-squared			0.809

Table 12: Effect of the Level of Pending Lawsuit Disclosure on Other Bond Terms

This table presents the OLS results regarding the effect of the level of pending lawsuit disclosure on other bond terms. *Bond Size* is the offering amount of a bond issue divided by total assets. *Bond Maturity* is the maturity of a bond in years. *Bond Covenant* is an indicator variable that takes the value 1 if a bond has covenants and 0 otherwise. *Court Judgment_{Yes/No}* is an indicator variable that takes the value 1 if bond prospectuses include default clauses related to court judgments. All other variables are defined in Appendix B. Standard errors are clustered at the firm level. *t*-statistics are in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% level, respectively.

Dependent Variable:	Bond Size	Bond Maturity	Bond Covenant _{Yes/No}	Court Judgment _{Yes/No}
	(1)	(2)	(3)	(4)
Dscore	0.008** (2.309)	0.256 (0.792)	-0.023** (-2.170)	0.009 (0.472)
Legal Provision	2.340 (1.587)	-61.289 (-0.454)	0.391 (-0.087)	3.659 (0.544)
Leverage	-0.122** (-2.078)	-0.119 (-0.022)	-0.414** (-2.303)	-1.116* (-1.823)
Firm Size	-0.024*** (-2.655)	0.303 (0.357)	0.012 (0.431)	-0.088 (-1.564)
ROA	0.232 (1.608)	-7.020 (-0.531)	0.736* (1.677)	-0.039 (-0.033)
Tangibility	-0.216*** (-3.081)	1.214 (0.185)	-0.253 (-1.165)	-0.505 (-1.255)
CF VOL	1.146** (2.358)	-3.362 (-0.075)	-0.903 (-0.607)	-0.562 (-0.258)
Discretionary Accruals	0.001 (0.658)	0.111 (0.982)	-0.008** (-2.125)	0.004 (0.814)
FOG Index	-0.006* (-1.713)	0.357 (1.212)	0.014 (1.400)	-0.040 (-1.658)
Analyst Following	-0.001 (-0.618)	-0.067 (-0.774)	-0.002 (-0.568)	0.002 (0.486)
Bond Maturity	0.000 (0.047)		-0.001 (-0.297)	0.003 (0.976)
Bond Size		0.343 (0.047)	0.069 (0.289)	-2.596** (-2.278)
Bond Rating	0.005 (1.447)	-0.392 (-1.306)	0.053*** (5.262)	0.041** (2.030)
Industry Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Underwriter Fixed Effects	Yes	Yes	Yes	Yes
Number of Observations	213	213	213	126
Adjusted R-squared	0.605	0.013	0.530	0.682