

Bondholder Activism and Delay in Financial Reporting*

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Abstract

We document and examine a new trend in bondholder activism, using a sample of companies failed to timely file their financial statements. In contrast with historical inaction, bondholders start to actively enforce their rights, when facing technical defaults. Stock price drops and bond price increases when activist bondholders attack the late-filing firms for bond covenant violation. We find that activist bondholders are more likely to target firms with more cash, less bank monitoring, and under greater influence of dedicated institutional shareholders. The study provides insight into the nature and contributing factors of bondholder activism.

I. Introduction

In this paper we document and examine a new trend in bondholder activism, using a sample of companies failed to file their financial statements on time. When companies fail to timely file their financial statements, they could violate the standard covenant of timely reporting included in their bond contracts. This constitutes a technical default—the violation of any debt covenants other than the one requiring the payment of interests or principal.

Historically, it appears that bondholders and borrowing companies enjoy a cozy relationship. Many technical defaults are undetected or unsanctioned. This is known as the “under-enforcement” of creditor rights by bondholders.¹ Incident of bondholder activism is very rare. The lack of large sample of activist bondholders taking action against borrowing companies limited the research in bondholder activism. In this paper, we take advantage of a recent increase in bondholder activism incidents in response to the violation of timely filing covenant, to study the nature and contributing factors of bondholder activism.

Our focus on violation of timely financial reporting covenant is motivated by the following reasons. First, the violation of timely filing financial reports is an evident technical default where the difficulty of detection is minimum (Karhan and Rock, 2008). Second, there is variation in bondholder behavior in face of such a technical default. Among those firms failed to file their financial statements timely, only a few are targeted by activist bondholders. The “selective” behavior provides the opportunity to investigate the contributing factors in bondholder activism. Third, bondholder activism to the technical default on timely reporting constitutes a significant economic event. The

¹ We provide more detail on bondholder’s under-enforcement in Section 2.2 of this paper.

aggregate amount of the outstanding bonds in our sample companies that have received a default notice for a failure to timely file to the trustee in the period of 2005-2007 is over \$59 billion.

Our results show that out of the 516 firms that violated timely reporting covenant (1213 late filing events), only 68 firms (81 late filing events) become the targets of activist bondholders, i.e., receive the default notice from bondholders. Study on the market reaction reveals that stock price drops and bond price increases when late filing firms are targeted by activist bondholders. We investigate this selective property of bondholder activism by evaluating the costs and benefits associated with bondholder activism. We find that borrowing firms with more cash are more likely to be targeted by bondholders. Specifically, the likelihood to be targeted by bondholders increases by 8% if the cash to total asset ratio increases from the average level by one standard deviation. Additionally, activist bondholders are less likely to target a late filer if the borrower has more loans and the majority of the loans come from relationship banks. This result reflects that bondholders value the cross-monitoring provided by banks and the cross-protection of bank loan covenants.

We find that firms owned by more institutional shareholders are more likely to receive the default notice from bondholders. This suggests that in the eyes of the activist bondholders the costs of expropriation by institutional shareholders outweigh the benefits of lowered default risk induced by institutional shareholder's management discipline function. A further study on the types of institutional shareholders reveals that firms predominated by short-term oriented transient institutions (as defined by Bushee, 1998)

are less susceptible to bondholder activism than firms dominated by dedicated or quasi-indexer institutions.

The costs of bondholder activism mainly arise from legal and administrative costs, which have little cross sectional variation. One exception is the cost of acquisition of 25% bonds outstanding to be eligible to attack the borrower. Thus, for actively traded bonds, the costs associated with bondholder activism will be lower. We find that firms with more actively traded bonds are more likely to be targeted by bondholders. Taken together, these results show that activist bondholders are more likely to target those borrowers where bondholders can potentially receive more welfare improvement by taking actions against borrowing firms.

It is noteworthy that the incidents of bondholder activism studied in this paper came as a surprise to the markets and to the borrowing companies. The attacked bonds were issued with the expectation of under-enforcement to technical defaults as is prior common practice. Thus, the bond indentures at issuance do not reflect the emerging bondholder activism. As bondholders increasingly pursue their rights in the event of late filing, future bond issuance is likely to incorporate the potential bondholder activism into the prospectus. As James Tanenbaum, head of global capital markets at New York-based law firm Morrison & Foerster², puts it, “As we think about covenants to be included in term sheets and indentures described in prospectuses, we keep these issues [bondholder activism to technical defaults on financial reporting] top of mind.”

This paper relates to research in both finance and accounting. First, this paper makes the first step to provide empirical evidence on activist bondholder behavior and identify factors contributing to bondholder activism. Shareholders, banks, and bondholders are the

² Morrison & Foerster has helped companies sell bonds. Their clients include Bank of America Corp.

major stakeholders in a company, and they share common interests in corporate performance. However, their interests diverge in systematic ways. Shareholders as the ultimate owner of the company are active in pursuing their rights through various shareholder activism mechanisms when facing agency problems (e.g., Gillan and Starks, 2000, 2007; Karpoff, Malatesta, and Walkling, 1996).³ Banks are known to be heavily involved in corporate activities, such as board representation and participation in corporate decisions. In contrast to the extensive literature on shareholder activism and on banks interaction with borrowing companies, there is limited research on bondholder activism.

It is fundamentally important to investigate bondholder activism because how bondholders implement debt contract to enforce creditor rights is essential to the design of bond contracts and the financing in the bond market. The presence of covenants in bond contracts is motivated and rationalized by their ability to mitigate agency problems, and aid in securing financing through the pledging of state-contingent control rights (Jensen and Meckling, 1976, Smith and Warner 1979, Tirole, 2006). Upon a covenant is violated, control rights may shift to bondholders, bondholders can use the threat of acceleration of bond outstanding to choose their preferred course of action, or to extract concessions by waiving the violation. A shift in bondholder behavior upon a triggering covenant could lead to changes in the design of bond contracts and in how bond price is determined at issuance.

Second, this work extends our understanding of the role of financial reporting in the debt market. Prior research in accounting studies the properties of earnings in debt

³ For additional research on shareholder activism, see Black, 1998; Brav, Jiang, Partnoy, and Thomas, 2008; Del Guercio and Hawkins, 1999; Ikenberry and Lakonishok, 1993; Klein and Zur, 2009; Rock, 1992; Romana, 1993, 2001; Smith 1996; and Wahal, 1996.

contract efficiency, examines the accounting choices when financial covenants are binding, and highlights the importance of financial reports in the debt market⁴. This paper provides direct evidence for the importance of financial reports in the public bond market: when bond issuers cannot provide timely information to bondholders (i.e. file financial reports), bondholders will act to enforce their creditor's rights. However, bondholder activism is less necessary when firms are closely monitored by banks and disciplined by strict loan covenants, which suggests that in addition to public information bondholders also rely on banks and banks' access to private information to monitor borrowers.

The rest of the paper is organized as follows. Section II introduces the institutional background and presents prior literature. Section III develops hypotheses and presents research design. Section IV describes our sample, and section V reports results and discussion. Section VI concludes.

II. Prior Literature and Institutional Background

2.1. Shareholder Activism and Creditor Protection

Agency problems arise as the interests of management, shareholders and creditors diverge. Shareholder activism has been an effective mechanism for shareholder protection in corporate governance and control. Regular activist shareholders include mutual funds and pension funds.⁵ They have employed various strategies, including “behind the scenes” discussion with company management and board members,

⁴ For example, Ball and Shivakumar, 2005; Ball, Robin, and Sadka, 2008; Wittenberg, 2008; Zhang, 2008; and Gigler, Kanodia, Sapra, and Venugopalan, 2009; Leftwich, 1981 and 1984; Beneish and Press, 1993; Chen and Wei, 1993; DeFond and Jiambalvo, 1994; Jensen and Meckling, 1976; Watts, 1977; Smith and Warner, 1979; Holthausen and Watts, 2001.

⁵ Shareholder activism became a widely studied area when shareholder profile of the US public companies shifted significantly from retail investors to institutional shareholders in 1980s (see, for example, Black, 1990 and 1991; Rock, 1991; Admati et al., 1994; and Karpoff et al., 1996).

shareholder proposal, proxy contest, and litigation to influence portfolio companies.⁶ Recently emerged as a central player in shareholder activism, activist hedge funds differ from the traditional activist shareholders in their aggressive and effective tactics. Due to less regulatory constraints, less conflicts of interest, highly incentivised compensation structure, and high leverage capability, activist hedge funds are poised to take forceful actions against under-performing companies to induce significant changes (Brav et al., 2008).

Relative to dispersed public bondholders, bank lending improves corporate governance by close monitoring borrower performance and intervening in an effective and timely manner in case of non-performance (Diamond, 1984, 1991; Smith and Warner, 1979). Additionally, concentrated debt holding by banks reduces the re-negotiation costs in the event of default. And loan syndicates deter strategic default by borrowers. Empirical studies show that the markets value bank monitoring function.

In addition to bank monitoring, bank loan covenants are designed to protect creditors' right and to increase firm value. Debt covenants may constrain activities such as asset sales or dividend payments to protect creditors from shareholder's wealth transfer activities. For example, when a company engages in a transaction involving transfer of

⁶ Subject to different regulatory constraints, incentives to monitor, and conflicts of interest, the institutional shareholders tend to adopt different tactics when dealing with the management of the portfolio firms. Mutual funds have supported shareholder governance proposals brought by others, withheld votes from board nominees, and opposed some governance proposals made by the board (e.g., Gillan and Starks, 2000 and 2007). Public pension funds are more aggressive than mutual funds in pursuing activist strategies (Guercio and Hawkins, 1999; Smith, 1996). For instance, public pension funds are more inclined to introduce shareholder proposals, publish lists of target companies, and apply to become lead plaintiffs in securities class actions. However, some of their activist movements are regarded to be motivated by political goals.

substantially all assets, a technical default may arise.⁷ The constraints imposed through debt covenants are frequently specified in terms of accounting numbers. When such covenants are violated, it constitutes a technical default. Studies show that virtually all technical default on accounting-based debt covenant violations occur in private rather than public debt issues (Beneish and Press, 1993; Chen and Wei, 1993). This may be explained by the fact that, compared with private loan, corporate bond includes less stringent covenants, due to higher renegotiation costs associated with dispersion of bondholders and difficulty in collective action (Kahan and Tuchman, 1995; Leftwich, 1981 and 1984).

Lender's reactions to technical default vary. At one extreme, the creditor grants an explicit or implicit waiver without renegotiation. Some other lenders grant a waiver after alteration in contract terms. Finally, in other cases, renegotiation fails, no waiver is granted, and the borrower has to seek financing elsewhere. On average, technical default on accounting-based covenant violations leads to significant economic loss to the borrowing companies (Beneish and Press, 1993).

2.2. Bondholder Activism

2.2.1. Historical Under-enforcement on Bond Covenant Violations

In contrast to extensive literature on shareholder activism and bank's monitoring role in corporate activities, research on bondholder activism is limited, despite its fundamental importance. One major reason for the lack of empirical study on bondholders' activism is that bondholders rarely take actions against companies in the case of technical defaults.

⁷ See, for example, Wendy's International Inc. announced in June 2006 its plan to spin off Tim Horton's to its shareholders. A group of bondholders sued arguing that the spin-off constituted a transfer of "substantially all" of Wendy's assets.

Bondholders used to hold their bonds passively and only step in when the borrower fails to pay principal or interests or files bankruptcy. This is known as the “under-enforcement” of creditor rights by bondholders (Kahan and Rock, 2008). Practically, many violations of bond covenants, mostly technical defaults, have remained undetected and unsanctioned.

The under-enforcement problem may be caused by the following reasons. First, as bondholders tend to include a dispersed group of investors, the difficulty in the collective action by bondholders and potential free-ride problem discourage potential activist bondholders from taking actions. Second, the indenture trustee (the supposed bondholder representative required by Trust Indenture Act (TIA) of 1939) lacks the incentive to represent and pursue bondholder interests vigorously. The trustee’s compensation does not depend on how much effort she puts in to protect bondholder’s interests. Sometimes, the trustee has to bear the cost involved in the investigation of the covenant violation.

Third, the current design of bond indenture is inefficient in the sense to help bondholders to detect violation and enforce their rights, as manifested in various cases when bondholders find it difficult even to detect the violation.⁸ Finally, traditional corporate bondholders, such as the insurance companies and mutual funds, have an accommodating attitude. If the corporate bondholders do not pursue their rights rigorously in the case of technical defaults, the trustee would conceivably have little incentive.

⁸ For example, a technical default on asset sales can inevitably entails much information collection and analysis to prove whether the assets involved are “substantially all” or not.

2.2.2. The covenant of timely financial reporting

In this study, we examine how bondholders respond to covenant violation of timely financial reporting, which is also a technical default. Firms that have registered securities under Section 12 of the 1934 Securities and Exchange Act and are required by Section 13 to file periodic reports, and firm that have registered securities under the 1933 Securities Act and are required by Section 15(d) to file periodic reports, need to file Form 10-K and Form 10-Q with the SEC within a statutory period after the fiscal period end.⁹ When a firm is unable to file on time its 10-K or 10-Q without “unreasonable effort or expense”, Rule 12b-25 of the 1934 Securities and Exchanges Act requires the firm to notify SEC by filing a Form 12b-25 within one business day of its due date. The forms are labeled as NT-10K or NT-10Q when the firm delays in filing 10-K or 10-Q, respectively.

Trust Indenture Act of 1939 (TIA) requires the appointment of a suitably independent and qualified trustee to act for the benefit of the bondholders, and specifies various substantive provisions for the trust indenture that must be entered into by the bond issuing firm and the trustee. Bond indenture inevitably requires that annual (quarterly) reports be sent to the trustee within 15 (5) days after 10-K (10-Q) forms have been filed with SEC. Usually, if a firm delays filing with SEC, it will not be able to deliver financial reports to the trustee within the requisite time of period and a technical default can trigger.

The unique features associated with the violation on the covenant of timely financial reporting set it apart from the previous technical defaults, and provide a good opportunity

⁹ Before the implementation of the Sarbanes-Oxley Act, 10-K has to be filed within 90 days after the fiscal year end and 10-Q has to be filed within 45 days after the fiscal quarter end. The Sarbanes-Oxley Act accelerates the deadline and firms have to file 10-K within 60 days after the fiscal year end and 10-Q within 35 days after the fiscal quarter end. For details, please see <http://www.sec.gov/rules/final/33-8128.htm>.

to study bondholder activism. First, we can obtain a large sample of bondholder covenant violations. Corporate bonds usually include fewer and less stringent covenants when compared with private debt due to higher renegotiation costs associated with dispersion of bondholders and difficulty in collective action (Diamond, 1984, 1991; Kahan and Tuchman, 1995; Smith and Warner, 1979; and Leftwich 1981, 1983), so few technical defaults are observed in public debt issues (Sweeney, 1994). However, corporate bonds inevitably contain a covenant requiring issuers to file with the trustee copies of periodic reports required to be filed with the SEC. When the issuer cannot make the SEC filings, and thus does not provide copies to the trustee with the requisite time period, a technical default can trigger. In the past, bondholders would neglect the technical default when companies were late in filing their SEC reports. Recently, activist holders “*selectively*” use these defaults to take on issuers,¹⁰ which reflects a variation in bondholder behavior.

Second, unlike other technique defaults, the failure to file on time with the trustee involves obvious and undisputable covenant violations.¹¹ Technical defaults can be classify into a) opaque defaults where it is costly to obtain the information required to determine whether a default has occurred, b) ambiguous defaults where it is not clear whether a default has occurred even all the necessary information has been acquired, and c) evident defaults which are not opaque or ambiguous. In some M&A and spin-off transactions, opaque and/or ambiguous defaults occur and bondholders have sued the company based on whether the deal involves transfer of substantially all assets. It is difficult, sometimes impractical to obtain all information needed to make a judgment.

¹⁰ Wall Street Journal, A1, August 29, 2006. Hedge funds play hardball with firms filing late financials. Aftanas and Vebman, October 2005, The unexpected ascent of covenant defaults. Financier Worldwide.

¹¹ Sometimes litigation arose regarding whether there had been a default or bondholders’ requirement for acceleration of payment was proper. In some cases, the company disputed the default alleged by bondholders but no litigation arose.

Other times, even with all information it is still ambiguous to come to a conclusion. By contrast, evident technical default, such as violation on the covenant of timely reporting, can avoid the problem of detecting a technique default, or at least make the detection scheme much easier.¹²

Third, the bondholder activism based on delay in financial reporting constitutes a significant economic event. We are able to collect bond information for 60 out of 68 companies attacked by activist bondholders. The aggregate amount of bonds of the 60 companies that have received a default notice for a failure to timely file to the trustee in our sample period is over \$59 billion.

2.2.3. The Rise in Bondholder Activism

Recently, the rise of hedge funds and other activist investors, e.g. private investment managers, has greatly ameliorated the historic under-enforcement problem, because these investors have the sophistication to detect potential violations, the financial resources to acquire substantial amounts of a single bond issue, the willingness to take on issuers, and the experience in pursuing the activism strategy. We observe that not all the bond issuers with technical defaults become activist bondholders' targets. That is, the bondholders are selective to enforce creditors' rights. Why bondholders target some firms and pursue activist strategy vigorously, while neglect the others when technical defaults trigger? The recent increase in bondholder activism incidences provides us large-sample evidence to address this question.

¹² There are basically two ways for bondholders to learn about debt covenant violations. First, a periodic (generally once a year) certificate stating whether the company has complied with all its covenants, which lacks enough background knowledge and does not deliver the information timely. Second, bondholders' own investigations, which require collective action, access to non-public information, and ability to do analysis. Both ways are not efficient for bondholders to detect a technique default.

2.3. Scheme to Enforce Bondholder Rights

Next, we provide more detail on the scheme that is commonly followed by the activist bondholders and the attacked borrowing companies, and possible solutions used to resolve the bond covenant violations. Also, as an example, we describe the interaction between Nolelis Inc. and its bondholders, to give the reader a flavor of how bondholders take on the borrowing firm when the firm delays financial reporting.

2.3.1. Common scheme of bondholder activism

Bondholders' enforcement involves a complicated scheme, which relies on the trustee and collective action by a large group of bondholders. Before any enforcement action can be taken, the "default" must be converted into an "event of default". To do this, the trustee or holders of 25% of the bonds must deliver "a letter of default notice" to the issuer and give the issuer a specified period of time to cure the default, usually 60 or 90 days.

Once an event of default occurs, an indenture usually provides for two categories of remedies. One is the acceleration of bonds, which means the principal and any accrued interest become immediately payable. Generally, either the trustee or holders of 25% of the outstanding bonds can ask for this remedy. Suits can also be brought in order to collect principal that has become due as a result of acceleration. However, only the trustee can bring such suits. Holders of 25% of the bonds have to comply with the "no-action clause", which requires, among others, that bondholders wait 60 days to let the trustee bring the suit itself. The second category can be any other remedy including concession fees, waivers conditional on an improvement in the financial health of the

firm, the inclusion of additional covenant restrictions, increased interest rates, and reduced allowable borrowings.

2.3.2. An Examples: Novelis Inc.

Novelis Inc. (NYSE: NVL, TSX: NVL) is a global leader in aluminum rolled products and aluminum-can recycling business. The company operates in 11 countries and has approximately 13,000 employees. On July 25, 2006, Novelis Inc. received a notice of default from the trustee for the bondholders with respect to its \$1.4 billion 7-1/4% Senior Notes due 2015. The default resulted from Novelis' failure to file its 2005 Form 10-K and its Form 10-Q for the first quarter of 2006 on a timely basis. In its press release, Novelis Inc. stated that:

The notice informs Novelis that it is in default of its financial reporting obligations and requires that it cure the default within 60 days. If the Company does not file the delayed 10-K and 10-Q by September 19, 2006, the date which marks the end of the specified cure period, an event of default occurs. At that point, the trustee or holders of at least 25% in aggregate principal amount of the Senior Notes may elect to immediately accelerate the maturity of the Senior Notes (\$1.4 billion principal amount outstanding).

In response to the default notice made by bondholders, Novelis stated that they would seek to file its 2005 Form 10-K and its Form 10-Q for the first quarter of 2006 within the cure period, i.e., on or before September 19, 2006. At the same time, Novelis anticipated the eventual receipt of a proper notice of default and attempted, in the period between June 5 and July 19 in 2006, to proactively resolve the issue by obtaining a waiver from the bondholders pursuant to a consent solicitation. Under this consent solicitation, Novelis paid \$21 million to the bondholders who agreed to grant the waiver. Later a second consent solicitation is made that if Novelis does not file its Form 10-K for year

2005, with the SEC by 5:30 p.m., New York City time, on September 30, 2006, the company will pay an additional \$5.00 for each \$1,000 in principal amount of Notes to the bondholders as “consent fees” to settle the late filing violation.

III. Hypotheses Development and Research Design

Among many firms defaulted on the covenant of timely filing, only a few became the targets of activist bondholders. Why would activist bondholders pursue vigorous actions against a few targets, while ignoring the rest? In this paper, we try to address this selective enforcement property in bondholder’s activism. We also examine the tactics taken by activist bondholders, and to study how the stock and bond markets respond to bondholder activism.

Bondholders are more likely to target the violators of timely filing when the benefits of taking action exceed the costs. The benefits of bondholder activism can arise from accelerated payment of affected bonds outstanding¹³. Activist bondholders in practice often renegotiate with the violators, with the threat to accelerate bonds outstanding, to collect concession fees from the violator and to extend new filing deadline. Both accelerated payment and extraction of concession fee can be considered immediate economic compensation to the bondholders. In addition, bondholder activism as a protection for bondholders could potentially deter wealth transfer to shareholders, and the bondholders as a whole can benefit from the reduced wealth transfer problem.

The costs involved in bondholder activism are primarily costs associated with the procedure, mainly legal and administrative costs. One important cost would be the requirement to acquire at least 25% of the outstanding bond affected.

¹³ Bondholders could demand immediate payment of principal and accrued interests.

3.1. Benefits of Bondholder Activism

We identify three mechanisms bondholder activists may use. First, bondholder activism may decrease the agency costs of cash by “squeezing” concession fees or accelerating payment of principal and accrued interests from borrowers. Second, activist bondholders can pursue their preferred course of action in various corporate activities through negotiations with borrowers. Finally, bondholder can pressure for immediate financial reports through bondholder activism.

By disgorging cash, bondholders leave less chance for shareholders to engage in wealth transfer activities. We track the solution of bondholders’ activism due to delay in financial reporting. Most of cases were solved by the waiver of financial reports on condition of the payment of concession fees or the acceleration of maturity with payment of principal and accrued interests. Both solutions require that issuers pay out cash. Due to different payoff patterns between shareholders and bondholders, shareholders have the incentive to invest in projects that raise the variability of the firm’s cash flow but carry a negative present value. Bondholders have to bear the risk but cannot share the upper side of the payoff (Jensen and Meckling, 1976). Cash is the asset most vulnerable to be appropriated (Jensen, 1986), so reducing cash at shareholders’ discretion makes bondholders less likely to face expropriation by shareholders.

The renegotiation process provides the opportunity for bondholders to pursue their most preferred course of actions. Healey and Palepu (1990) document that firms cut dividends when the tightness of dividend constraints increases. DeAngelo, DeAngelo, and Skinner (1994) suggest that firms engaging in contractual renegotiations with lenders are willing to cut dividends. Chava and Robert (2008) find that capital investment

declines sharply following a covenant violation. All these results suggest that once a debt covenant becomes binding and renegotiation starts between debt holders and borrowers, debt holders are able to influence borrowers' financing, operating, and investing activities to protect their interests.

The benefits of providing timely financial reports to debt holders have been widely discussed in the prior literature (e.g. Jensen and Meckling, 1976; Watts, 1977; Smith and Warner, 1979; Holthausen and Watts, 2001), and such benefits may be more significant to bondholders given the arm's length relationship between bondholders and borrowers. Although borrowers may default on financial reporting covenant, eventually they still need to provide financial reports to bondholders¹⁴. Receiving the default notice, borrowers are pressured to file financial reports early due to the threat of accelerating payment, paying concession fees, and facing other interventions by bondholders (an example is provided in Section 2.3.2). The earlier it is to obtain financial reports, the more efficient for bondholders to monitor borrowers because bondholders can identify potential financial problems earlier and can take actions earlier to protect their investments.

Along the above lines of thinking, next we identify the following three factors that may affect the benefits of bondholder activism.

¹⁴ In addition to the financial reports, bondholders also receive an annual certificate of compliance as to whether there has been any default under the indenture. The certificate must be signed both by the president or vice-president, and by either the treasurer, assistant treasurer, controller or assistant controller of the company. Sometimes, certificates or opinions as to compliance are supplied by independent accountants.

3.1.1. Cash position

The benefits of activism are higher when activist bondholders attack firms rich in cash. Cash-rich firms are able to engage in wealth redistribution strategies, such as dividend payment and share repurchase. Maxwell and Stephen (2003) found that when firms announce open-market share repurchases, the bond markets respond negatively. They further found that the loss to bondholders is a function of the size of the repurchase, and the risk of the firm's debt. For firms that announced share repurchase, their bond rating is more likely to be downgraded subsequently. Thus, if activist bondholders selectively target those late filers rich in cash, bondholders could be shielded from (potential) shareholder expropriation and benefit from the welfare improvement to a great extent.

Additionally, if activist bondholders intend to use technical defaults on timely financial reporting to extract significant concession fees or to accelerate bonds outstanding, they need to target those cash-rich violators who are able to pay. In contrast, if activist bondholders decide to attack those cash-constrained violators, the violators could be forced to file bankruptcy. In those cases, the activist bondholders might still receive payments, but it could end up with a very lengthy process and incur high legal and administrative costs.

Therefore, when firms delay financial reporting, bondholders are more likely to issue the letter of default notice to firms that have more cash. CASH, defined as cash and short-term securities scaled by average assets, is used in the empirical analysis.

3.1.2. Bank loans

The benefits of mitigating debt agency problem through bondholder activism are smaller when bondholders are already under the protection of bank loans. The protection offered by bank loans comes from the bank monitoring and the stringent loan covenants.

The widespread ownership of bonds does not provide incentives for each bondholder to monitor shareholders, but bank loans can provide cross-monitoring benefits to bondholders. Cross-monitoring occurs when observable monitoring by one type of creditor diminishes the duplicative monitoring costs of other debt holders. The unique monitoring role of banks is highlighted by a number of theoretical models (Campbell and Kracaw, 1980; Diamond, 1984; Ramakrishnan and Thakor, 1984; Fama, 1985). Empirical work also supports this view. Datta, Iskandar-Datta and Patel (1999) find that the existence of bank loan lowers the at-issue yield spreads for initial public straight bond offers by about 68 basis points.

In addition, bank loan covenants are found to be more restrictive than public bond covenants (Dichev and Skinner, 2002). Practically, bank loan covenants provide effective protection for all creditors including public bondholders as well as banks themselves from management misbehavior and agency problems. Eberhart, Maxwell, and Diddique (2008) report that firms with more bank debt obtain more pronounced reduction in default risk when firms increase R&D. They argue that restrictive bank loan covenants protect bondholders from the possible increase in firm risk. These findings suggest that bondholders are protected by bank monitoring and loan covenants, and hence the benefits of mitigating the debt agency problem through activism is smaller when bondholders attack firms that are closely monitored by banks and have strict loan covenants.

Relationship bank lenders are considered more informative than others.

Informed lenders provide better monitoring than uninformed lenders (Holmstrom, 1979; Holmstrom and Tirole, 1997; and Gorton and Pennachi, 1995). Lenders close to borrowers are better informed and hence provide better monitoring because the close relationship help lenders obtain extensive knowledge of borrowers' operations and well developed channels of communication with firms' managers facilitate the timely receipt of information from borrowers. Banks in sole-lender bank loans and lead arrangers in syndicate loans establish and maintain a relationship with the borrower, and take on the primary information collection and monitoring responsibilities in a loan. Sufi (2007) finds that the information asymmetry is lower between the borrower and its relationship-based lead arranger and the lead arranger retains a larger share of the loan and forms a more concentrated syndicate when borrowing firms require more intense due diligence and monitoring.

We follow Bharath et al. (2006) to classify the relationship bank lender. We search for all of a firm's previous loans over the five years preceding the loan's offering date. For every previous loan, we identify the bank in sole-lender loans and the lead arrangers in syndicated loans¹⁵. If the bank in the case of sole-lender loans or at least one of the loan's lead arrangers in the case of syndicate loans had been a sole-lender or a lead arranger of loans previously issued to the firm, we classify the loan has being issued by a relationship lender. If more than 50% of a firm's loans are issued by a relationship lender, the firm is identified as having relationship lenders (i.e. $BNK=1$, otherwise $BNK=0$).

Following Eberhart, Maxwell, and Siddique (2008), we use the size of bank loan divided by total debt ($LOAN$) to proxy for the protection of bank covenants. The larger

¹⁵ We thank Regina Wittenberg-Moerman for providing the list of lead arrangers.

the size of bank loan the more protection of loan covenants provide because bank loans contain common covenants and it should be easier for firms to circumvent covenants with a small issue of bank loan by buying back this loan than covenants with a large amount of bank loan. In addition, banks have greater incentives to exert more effort to examine the compliance with covenants when they lend a greater amount of money to borrowers.

3.1.3. Shareholder Profile

The benefits of bondholder activism are greater when bondholders are more likely to be expropriated by shareholders. In selecting which violators to target, the conflict of interests between shareholders and debt holders make the activist bondholders inevitably take shareholder profile of the target firm into consideration.

a. Institutional investor ownership

We consider the impact of institutional investor ownership on bondholder activism. Two countervailing forms of interaction are in play. First, due to inherent conflicts of interests between shareholders and debt holders, shareholders may find it relatively easy to engage in selfish strategies, if their opinions are well-respected in corporate activities. Those shareholders could take more risky projects or under-invest to benefit themselves and harm the bondholders. Compared with individual investors, institutional shareholders are more sophisticated and have more voting power to influence the financing, investing and operating activities of the firms they invest in. The sophistication and block stockholdings of institutional shareholders thus give them the ability and the motivation to expropriate bondholders, so the debt agency problem could be more serious in firms

under greater influence of institutional shareholders. Against the backdrop of potential wealth transfer strategies by shareholders¹⁶, bondholders will tend to attack those where shareholder's selfish dealing is more serious. That is because, by attacking the violators with serious shareholder expropriation, activist bondholders can achieve high welfare improvement.¹⁷

On the other hand, better corporate governance provided by institutional shareholders can benefit bondholders. Sophisticated institutional shareholders are capable to monitor and discipline managers, ensuring that managers choose investment levels to maximize firm value (Shleifer and Vishny, 1986; Monks and Minow, 1995). Bhojraj and Sengupta (2002) argue that governance mechanisms can reduce default risk by monitoring managerial performance and reducing information asymmetry between the firm and the lenders. They find that firms with greater institutional ownership and stronger outside control of the board enjoy lower bond yields and higher ratings on new bond issues.

Additionally, the costs to the activist bondholders may be higher if they target firms with a strong shareholder presence. Bondholder activism can be viewed as a power struggle between bondholders and shareholders. When bondholders demand compensation from the target firms on the basis of technical defaults, it reduces the amount of capital under shareholder's disposal. Shareholders could make alliances with the management to fight back, which makes the bondholder action more difficult and

¹⁶ The wealth transfer from bondholders to shareholders may happen before or after technical default triggers.

¹⁷ Ideally, the (potential) cost of wealth transfer from bondholder to shareholder should be fully reflected in bond covenants and priced in bond offering. However, the bonds under technical default in our sample were initiated some time ago, when under-enforcement was the norm. In this paper, we do not intend to argue whether bondholder activism is optimal or not.

more costly. Thus, a strong shareholder presence could potentially deter activist bondholders.

How the presence of institutional shareholders influence bondholder activism becomes an empirical question. We use the percentage of institutional stockholdings in total shares, PIH, to proxy for the influence of institutional shareholders. Higher percentage corresponds to greater institutional influence. We obtain the institutional stockholding information from Thomson Reuters 13f Institutional Holdings dataset.

b. Institutional shareholder type

We further investigate whether bondholders treat certain groups of institutions in a manner different from the finding for aggregate institutional ownership, because institutional investors differ in their behavior and incentives. Bushee (1998) classified institutions into three groups—transient, quasi-indexer, and dedicated—based on their past investment patterns in the aspects of portfolio turnover, diversification, and momentum trading. According to Bushee, transient institutions “hold small stakes in numerous firms, trade frequently in and out of stocks, and generally base their trades on a value proxy such as current earnings”; quasi-indexer institutions “use indexing or buy-and-hold strategies that are characterized by high diversification and low portfolio turnover”; and dedicated institutions have large and long-term holdings, “which are concentrated in only a few firms, provide incentives to monitor managers ...”

We can see that the investment horizon and ownership concentration increase from the transient group to the dedicated group. Institutions that invest in firms with the intention of holding substantial ownership blocks over a long horizon have strong

incentives to monitor managers and ensure the firm to undertake profitable investment and achieve higher future profit. Eberhart, Maxwell, and Siddique (2008) find that investment to increase firm value can decrease default risk. The short-term focus of transient institutions makes them the less likely group to make long-term investments to improve firm value, and hence default risk is less likely to decrease in firms dominated by transient institutions.

Furthermore, by investing in a large number of stocks with small holdings in each, transient institutional shareholders lack motivation to commit huge effort for the benefit of shareholders on the whole. It is conceivable, facing activist bondholders, transient institutional investors are less likely to work with the management to fight for shareholders in general. Thus, activist bondholders can proceed with their activist tactics, not worrying about transient institutional investors.

In addition, the agency costs related to debt financing eventually are paid by shareholders (Jensen and Meckling, 1976). Transient institutions may not stay with the firm long enough to bear the agency cost in debt financing, and they have more incentives to expropriate bondholders. All these arguments suggest that when a firm is dominated by transient institutional shareholders, firm value is less likely to rise but wealth is more likely to be transferred from bondholders to shareholders, so the benefits to bondholders are higher when such a firm is targeted.

The investment properties of transient and dedicated investors generate a competing hypothesis. The short-term focus of transient institutions makes them the less likely group to make long-term investments, such as R&D projects. Normally such long-term projects are risky and potentially transfer wealth from bondholders to shareholders. By

reducing long-term risky projects, transient institutional investors could inadvertently lower the agency costs of debt. Thus, with more transient institutional investors, activist bondholders may not receive much welfare improvement from attacking late filing firms. All these arguments suggest that in a firm dominated by transient institutional shareholders, bondholders are less likely to attack such a firm when a technical default happens.

It is an empirical question with regard to the influence of different types of institutional shareholders in bondholder activism. To ensure that institutional ownership is likely to be influential, the sample is restricted to firms with at least five percent of institutional stockholdings. Following Bushee (1998), we use a dummy variable to indicate the predominance of one group of institutions (DED for dedicated, QIN for quasi-indexer, and TRA for transient) in a firm. The indicator variable equals one if the proportion of ownership by one group in a firm is in the top quintile, and zero otherwise.

3.2. Cost of Bondholder Activism

As discussed in Section 2.2, the recent change in the profile of bondholders has greatly ameliorated the historic under-enforcement problem. But bondholders still “selectively” enforce their creditor’s right because activism involves substantial implementation costs. Such costs may include time, expertise, and personnel utilized to file the default notice and negotiate with the borrowers, and the resource used to acquire a 25% of bonds outstanding to be eligible to attack the late filing borrowers.

We assume that the implementation costs are generally fixed but may vary with the activeness of bond trading. Infrequent trading in the bond market may impose significant

costs on activist bondholders, who are required to hold at least 25% of outstanding bonds to be eligible to attack firms with a binding bond covenant. It is easier and less costly for bondholders to attack firms with bonds actively traded in the market. Hence, activist bondholders are more likely to issue the letter of default notice to the late filers with actively traded bonds.

Literature on the bond market generally agrees that corporate bonds are more actively traded following issuance and tend to become less liquid with age (Nunn et al. 1986; Sarig and Warga, 1989; Alexander et al., 2000; Hong and Warga, 2000; Chakravarty and Sarkar, 2003). We use the bond age (AGE) measured as the number of years at the time of late filing to proxy for the trading activity in the bond market. In the case of multiple bonds issued by the same firm, we take the average value. Bonds with smaller AGE are more actively traded in the market, and hence firms with such bonds are more likely to be attacked by activist bondholders.

3.3. Other control variables

In addition to the above factors hypothesized to influence the costs and benefits of bondholder activism, we include several other control variables.

Bond size may affect both the costs and benefits of bondholder activism. As discussed in the above subsection, activist bondholders have to hold at least 25% of the outstanding bonds to be eligible to attack firms defaulted on a bond covenant. The larger the bond size means the more capital has to be employed to acquire the necessary amount of bonds and hence the more costly for bondholders adopt the activism approach. However, bond size is also related to the potential benefits activist bondholders may

receive. The direct benefit to bondholders after attacking the late-filing borrower is to obtain substantial concession fees. As illustrated in the example in Section 2.4., most concession fees are determined on the basis of “each \$1,000 in principal”. The larger the bond size, the more concession fees can be received by activist bondholders.

Consequently, it is an empirical question as to how activist bondholders strike the balance between the costs and benefits in their decision on whether or not it is worthwhile to attack a late filer. We use the principal value of bonds outstanding at the time of late filing (BND_SIZE) to measure the bond size of each firm. If a firm has multiple bonds outstanding, an average value is taken.

Firm size can reflect a firm’s information environment, strength of corporate governance, and the depth of pocket, so we include the firm’s size as a control variable and measure it with the logarithm of total assets (AT). Additionally, prior studies show that institutional investors prefer large and liquid stocks (Gompers and Metrick, 2001). In our analysis of the impact of institutional investors holding, we control for the size effect.

A six-month buy-and-hold stock return (RET) is used to measure the issuer’s stock performance. Kahan and Rock (2008) argue that holders of convertible bonds are more likely to act when the stock price depreciates a lot. Also, shareholders are more likely to take risky projects when future growth dims. All these suggest that bondholder activism is more active when the stock price goes down.

Convertible bonds serve to mitigate the conflict of interests between shareholders and bondholders (Green, 1984; Eberhart, Maxwell, and Siddique, 2008). The convertible bond arbitrage strategy employed by some hedge funds involves a long position in convertible bonds and a short position in the underlying equities, but the complicated

conditions required for holders of convertible bonds to take on issuers make convertible bonds a special case (Kahan and Rock, 2008). We use the percentage of convertible debt in total debt (CONVERT) as another control variable.

Credit rating is likely to incorporate a lot of information affecting bondholders' activism, and bondholders are more likely to target issuers close to default in principal and interests payment in order to save their initial investments. A dummy variable (HY) equals 1 if a firm's long-term debt is rated as below investment grade by S&P, 0 otherwise. Firms without S&P long-term debt ratings are also classified as below investment grade, and a dummy variable (NR) indicating the lack of S&P rating is included as another control variable. The definition of variables and the data source are listed in Table 1.

3.4 Research design

A logit model is used to in the empirical analysis.

$$Prob(Notice=1) = F(\beta_0 + \beta_1 CASH + \beta_2 BNK + \beta_3 LOAN + \beta_4 PIH + \beta_5 DED + \beta_6 QIN + \beta_7 TRA + \beta_8 AGE + \beta_9 BND_SIZE + \beta_{10} AT + \beta_{11} RET + \beta_{12} CONVERT + \beta_{13} HY + \beta_{14} NR)$$

where $F(\cdot)$ is the logistic cumulative density function.

IV. Sample Description

We begin with late filing firms identified as filing NT-10K or NT-10Q forms with SEC during the period of 2005-2007, because bondholders started to become active to enforce their creditor rights when issuers delay in financial reporting since 2005 (see WSJ, 2006). We then keep firms that have financial data available in COMPUSTAT and public bonds outstanding. There are 516 firms meeting these criteria and 1213 NT forms

were filed. We perform a keyword search in the LexisNexis database utilizing the key word “default notice”, “late filing”, and “delay in filing”. We identify 68 firms that received the letter of default notice from trustees or bondholders because of delay in financial reporting. On the firm basis, around 13% (=68/516) firms that file NT forms received letters of default notice from bondholders. Because bondholders may send the letter of default notice in response to several NT forms, we treat the first NT form as the one that triggers the default. In this way, 81 NT forms are identified default-triggering, i.e. almost 7% (=81/1213) NT forms will trigger the issuance of default notice. The sample selection process is summarized in Table 2. Daily data of stock returns are obtained from CRSP. Institutional investor’s shareholding data are from Thomson Reuters CDA/Spectrum Institutional 13F database.

Audit Analytics classifies the late filing reasons into 78 categories. The 78 categories are not exclusive and in our sample the reasons for one case of late filing can be as many as 14. An overall 3860 reasons are listed for the 1213 NT forms we collect. We read the description of the 78 categories and summarize them into 14 broad groups. Table 3 lists the frequency and percentage in each group of reasons. The most frequently cited reasons for late filing are: time constraint, accounting issues, restatement, shortage in expense and personnel, implementation of Sarbanes-Oxley Act, investigation by SEC, review, and compensation issues.

Table 4, Panel A provides summary statistics of the variables. The sample is divided into two groups: firms that do not receive the default notice from bondholders, and firms that do. It is clear that firms receiving the default notice have more cash, less bank loan, higher institutional holding percentage than firms not receiving the default notice.

Compared with firms not attacked by bondholders, the attacked firms are less likely to be dominated by quasi-indexer and transitory institutions. There is not much difference in firm size across these two groups, but firms attacked by bondholders performed much worse in the stock market than the non-attacked firms before they file the NT forms. Convertible bonds appear more frequently in the attacked group than in the non-attacked group. Most of the late filing firms are rated below investment grade, but the attacked group has more such firms. On average 9% of the firms are not rated by S&P in both groups.

Table 4, Panel B presents the correlation matrix among the variables. Pearson (Spearman) correlation is above (below) the diagonal. CASH and LOAN are significantly negatively correlated, which implies that firms with less cash relies more on bank rather than the public debt market to borrow money. CASH and CONVERT are positively correlated at 0.48 (Spearman non-parametric correlation), which suggests that firms with more cash are more likely to issue convertible bonds to mitigate the agency problem associated with cash and the conflict of interests between shareholders and bondholders (Green 1984; Eberhart, Maxwell, and Siddique, 2008). Large firms usually absorb more institutional investors, issue bonds of larger size, and attract more rating agency's attentions. As a result, firm size (AT) is positively correlated with institutional shareholding (PIH) and bond size (BND_SIZE), and negatively correlated with high-yield bond rating (HY) and non-rating by S&P (NR).

V. Results and Discussions

5.1 Factors contributing to the selective enforcement of creditor's rights

Estimation results of variant versions of the logit model are reported in Table 5. Financial firms are excluded from the sample. Because the same firm may delay financial reports and receive default notices several times, the Z-statistics are adjusted by clusters of firms and the corresponding P-values are reported behind each coefficient. The marginal effect represents the change in probability that the firm receives a default notice given a change in the independent variable over a standard deviation at the means. For indicator variable, the marginal represents the change in probability that the firm receives a default notice when the indicator value changes from 0 to 1.

Column 1 of Table 5 focuses the effect of CASH. Consistent with the forecast that by attacking firms rich in cash bondholders are more likely to benefit from cash receipts and reduction in the debt agency problem associated with cash, we observe a significant positive coefficient on CASH. The result shows that the probability of receiving a default notice increases by 10.7% if the cash to total asset ratio increases from the average level by a standard deviation (16%). This result is also consistent with the observance reported by Kahan and Rock (2008) that activist bondholders use defaults in timely financial reports to extract concession fees.

The specification in Column 2 examines the effect of cross-protection to bondholders offered by bank loans. We include both BNK and LOAN in addition to the control variables. The significant negative coefficients on BNK and LOAN indicate that bondholder activism is less likely to occur to firms with loans issued by relationship banks and owning a large amount of bank loans. The probability of receiving the default

notice letter will decrease by 3.5% if the majority of a firm's loans come from relationship banks. In response to a standard deviation increase in LOAN from the average level, the marginal probability of receiving the default notice decreases by 8.4%. These results reflect that bondholders value the cross-monitoring offered by banks and the cross-protection provided by loan covenants. *Ceteris paribus*, when a technical default triggers, bondholders are more likely to target firms under less protection by bank loans.

Columns 3 and 4 investigate the influence of institutional shareholders. Consistent with the hypothesis that firms under greater influence of institutional shareholders are more likely to be attacked by bondholder, we find that the coefficient on PIH is significant positive in Column 3. One standard deviation (39%) increase in PIH corresponds to 8% increase in the probability of receiving the default notice. This suggests that in the eyes of the activist bondholders the costs of expropriation by institutional shareholders outweigh the benefits of lowered default risk induced by institutional shareholder's management discipline function.

We include three additional indicators to capture the influence of different types of institutions in column 4. The coefficient on PIH is still significantly negative, and we obtain new evidence regarding the influence of institution types. The significant negative coefficients on QIN and TRA suggest that firms predominated by short-term oriented institutions are less likely to be attacked by bondholders. Furthermore, we find that the economic and statistic value of the coefficient on TRA is much larger than those on QIN. When transitory institutions become predominant in a late filing firm, the probability of receiving the default notice can decrease by 5%; however, if quasi-indexer institutions become dominant, the probability will decrease by 3.9%. Transitory institutions have a

shorter investment horizon than quasi-indexer institutions, and the comparison of the influence between transitory institutions and quasi-indexer institutions further supports the argument that bondholders view short-term oriented shareholders to be less likely to expropriate from them and hence bondholders are likely to attack firms dominated by short-term oriented shareholders.

In column 5, we examine whether the difficulty in collecting necessary bond shares affects activist bondholders' behavior. The significant negative coefficient on AGE suggests that bondholder activism is more frequent when firms have bonds actively traded in the market. This result implies even though bondholder activism involves substantial benefits, bondholders still need to consider the costs in such action.

We pool all the interested variables together in column 6 to evaluate the combined effect of these costs and benefits factors. The coefficients maintain the same signs as before, but the coefficients on CASH and AGE are no longer statistically significant. The loss of statistic significance in CASH may be mainly due to the high correlation between CASH and LOAN as reported in Table 4, Panel B. There are two reasons for the decrease in the significance level of AGE. First, a large portion of the costs associated with bondholder activism can be fixed, such as time, expertise, legal fees, and personnel used during the process. If the costs do not vary much cross-sectionally compared with the benefits, the cost factors could become less significant. Additionally, if the variable costs are marginal as compared to the benefits, the influence of benefits dominates. Second, the variable proxy for the trading activity of bond is noisy.

Several control variables also provide some explanation power. The significant negative coefficient on RET indicates that firms performing badly in the stock market

over a 6-month period prior to late filings are more likely to be attacked by bondholders. The stock price reflects investors' forecast of a firm's future performance. If a firm cannot succeed in the future, bondholders will try to take out their investment early rather than wait till the last minute. For the same reason, firms rated below investment grade are more likely to be attacked by bondholders.

The above regression analysis suggests that bondholder activism is more vigorous in firms with more cash, monitored less by banks, and under greater influence of dedicated institutional shareholders, where the conflict of interests between shareholders and bondholders is more severe. Our results are consistent with the findings by Chava and Robert (2008), who document that capital investment declines sharply following a bank covenant violation, and the reduction in investment is concentrated in situations where agency and information problems are more severe.

5.2 Market reactions

To check whether bondholder activism is to resolve the problem of wealth transfer from bondholders to shareholders, we examine the stock and bond market reaction in response to the event of receiving default notice. The event date, 0, is defined as the date when a firm receives the default notice from bondholders and the event window is from 5 days before to 5 days after the event date.

Table 6 reports the average abnormal daily returns in the event window. The abnormal return is calculated as daily individual stock return minus daily return on S&P's composite index. The significantly negative abnormal stock return on the event day (-0.60%) suggests that shareholders lose when a firm becomes activist bondholders' target.

Table 7 reports the average abnormal daily change in bond spread in the event window. The abnormal daily change in bond spread is calculated as the daily change in bond spread minus the average daily change in bond spread during the non-event period. The non-event period is from 70 days to 10 days before a firm files an NT form. Bond trading information is obtained from TRACE. The abnormal change in spread is significantly negative on day 4 (-0.25%), which implies the bond value increases. This result suggests that the bond market rewards the bondholder activism. Taken together, the results in Table 6 and Table 7 indicate that bondholders benefit from the bondholder activism at the cost of shareholders.

VI. Conclusion

In this paper, we take advantage of a recent increase in bondholder activism incidences in response to failure in timely filing corporate financial statements, to study the nature and contributing factors of bondholder activism. Despite its importance, there is a dearth of large-sample evidence about bondholders' active enforcement of creditor rights. Historically, it appears that bondholders and companies enjoy a cozy relationship. And the lack of large sample of activist bondholder taking action against borrowing companies limited the research on bondholder activism.

We investigate the selective property of bondholder activism with the perspective of associated benefits and costs. The benefits come from the instant cash receipts as concession fees and the mitigations of debt agency problem. We find that borrowing firms with more cash are more likely to be targeted by bondholders. Additionally, bondholder activism is less frequent if a firm owns more loans and the majority of the

loans come from relationship banks. This result reflects that bondholders value the cross-monitoring provided by banks and the cross-protection by bank loan covenants. We find that firms owned by more institutional shareholders are more likely to receive the default notice from bondholders. A further study on the type of institutional shareholders reveals that firms predominated by short-term oriented transient institutions (as defined by Bushee, 1998) are less susceptible to bondholder activism than firms dominated by dedicated or quasi-indexer institutions. Taken together, these results suggest that bondholder activism is more vigorous in firms where the conflicts of interests between shareholders and bondholders is more severe and where bondholders could potentially receive more welfare improvement by taking actions against the borrowing firms.

A large proportion of costs is legal and administrative costs and has low cross sectional variability. However, the difficulty in collecting 25% bonds outstanding to be eligible to attack firms is lower if bonds are actively traded. We find that firms with more actively traded bonds are more likely to be targeted by activist bondholders.

This paper has two main contributions. First, this paper makes the first step to provide empirical evidence on activist bondholder behavior and identify factors contributing to bondholder activism. Further, this paper provides direct evidence regarding to the importance of financial reports in the public bond market: when bond issuers cannot provide timely information to bondholders, bondholders will act to enforce their creditor's rights. However, bondholder activism is less frequently when firms are closely monitored by banks and disciplined by strict loan covenants, which suggests that in addition to public information bondholders also rely on banks and banks' access to private information to monitor borrowers.

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Table 1. Definition of variables and data source

Variable	Definition	Data Source
NOTICE: Indicator for receiving a letter of default notice from bondholders	1 if receive a letter of default notice, 0 otherwise	8-K forms, LexisNexis
CASH: Cash at the end of last fiscal year prior to late	<u>cash and short-term investment, i.e. che</u> average asset	Compustat
BNK: Indicator for firms with majority (>=50%) bank loans issued by relationship lenders	1 if the majority (>=50%) of a firm's outstanding loans are issued by a relationship lender, 0 otherwise. A loan is considered to be issued by a relationship lender if at least one of the laon's lead arrangers in a syndicated loan or the bank in a sole-lender loan had been a lead arranger or the sole-lender of borrower's previous loans over the 5 years preceeding the loan's issuance date.	Dealscan
LOAN: bank loan at the end of last fiscal year prior to late filing	<u>notes payable+long-term debt-other</u> total debt	Compustat
PIH: Percentage of institutional holdings	<u>Total shares held by institutional investors</u> total shares outstanding	Thomson Reuters 13f Institutional Holdings
DED: Indicator for predominant ownership by dedicated institutional shareholders	1 if the percentage of dedicated institutinal shareholders holdings scaled by PIH is in top quintile of distribution, 0 otherwise.	Updated Bushee (1998)
QIN: Indicator for predominant ownership by quasi-indexer institutional shareholders	1 if the percentage of quasi-indexer institutional shareholders holdings scaled by PIH is in top quintile of distribution, 0 otherwise.	Updated Bushee (1998)
TRA: Indicator for predominant ownership by transient institutional shareholders	1 if the percentage of transient institutional shareholders holdings scaled by PIH is in top quintile of distribution, 0 otherwise.	Updated Bushee (1998)

Table 1. Definition of variables and data source (continued)

Variable	Definition	Data Source
AGE: The number of years after bond offering when a firm files an NT form.	The difference between the bond offering date and the date a firm files an NT form. If a firm has multiple bond outstanding, an average value is used.	Updated Bushee (1998)
BND_SIZE: The size of bond measured when a firm files a NT form.	The amount of bonds outstanding when a firm files a NT form, measured in million of dollars. If a firm has multiple bonds outstanding, an average value is used.	Updated Bushee (1998)
AT: Logarithm of total asset at the end of the last fiscal year prior to the late filing.	Logarithm of average total assets at the last fiscal year end prior to the late filing.	Compustat
RET: Six-month buy-and-hold stock return.	Six-month buy-and-hold stock return from seven months to one month before the late filing.	CRSP
Convert: Percentage of convertible debt in total debt at the end of the last fiscal year prior to the late filing.	$\frac{\text{convertible debt}}{\text{total debt}}$	Compustat
HY: Indicator for a firm rated below investment grade	1 if S&P rates a firm's credit below B or does not rate a firm, 0 otherwise.	Compustat
NR: Indicator for lack of ratings by S&P	1 is S&P does not rate the firm, 0 otherwise.	Compustat

Table 2. Sample selection

	Number of Firms	Number of Late Filing Events
File NT forms, financial data available from COMPUSTAT, and bonds outstanding*	516	1213
Receive letter of default notice	68	81 **
File NT forms, financial data available from COMPUSTAT, and bonds outstanding--excluding financial firms*	458	1066
Receive letter of default notice --excluding financial firms	61	73 **

* A firm is identified to have bonds outstanding when this firm issues bonds before it files NT forms and the date of maturity is after the NT filing date. Bond information is available from Mergent FISD.

** When a firm receives the letter of default notice from bondholders because the firm delays in filing financial reports, the most recently filed NT form is identified as the event that triggers the default.

Table 3. Reasons for late filing

This table lists the late filing reasons. The first column summarizes the reasons provided by Audit Analytics into 14 broad groups and the second column presents detailed description. The sample includes 1213 NT forms filed by the 516 firms that had public bonds outstanding when they filed the NT forms. One case of late filing may be caused by several reasons, which can be as many as 14 in the sample, so in total there are 3860 reasons for the 1213 NT forms. Data Source: Audit Analytics.

Broad Reasons	Detailed Reasons	#	%
More time is needed	More time is needed to complete the periodic report.	675	18%
Issues related to accounting	<p>Registrant identifies Issues associated with taxes. Often tax matters will concern benefits and deferrals.</p> <p>The discovery of a discrepancy and/or error in the financial data has delayed the filing of the periodic report.</p> <p>Registrant has identified accounting issues regarding the proper calculation of the recognition of revenue (sales contracts, resale arrangements, returns, etc.).</p> <p>Registrant identifies accounting issues with respect to lease accounting (improvement amortization, rent recognition, etc.)</p> <p>Registrant identifies accounting issues regarding accrual or identification of liabilities on the balance sheet (e.g., pension obligations, liabilities for leases, deferred revenue obligation, or reserves.</p> <p>The registrant identifies accounting issues associated with the merger, acquisitions, reorganization or disposal issues for registrants. The internal control issues in this area can vary from incorrect application of GAAP to calculate the proper intangible assets levels associated with acquisitions to failure to record the proper reserves for disposal or reorganization. Accounting rules in this area are considered complex and non-routine. This category is often attributed to failures by personnel in understanding certain issues associated with acquisitions or disposals.</p> <p>The periodic report is late due to an issue regarding accounts receivable, loans collectible, investments, uncollectible allowances, notes receivables and/or related reserves.</p> <p>Registrant has identified issues regarding the proper accounting of matters between subsidiaries, affiliates, and other related entities with respect to each other and the parent company.</p> <p>Registrant has identified accounting issues associated with lease termination obligations and other lease commitments pursuant to Financial Account Standard No. 5, Accounting for Contingencies.</p> <p>Registrant identifies accounting issues without elaborating more specifically on the type or types of issues involved.</p>	652	18%

Table 3. Reasons for late filing (continued)

Broad Reasons	Detailed Reasons	#	%
	<p>Issues associated with accounting for inventory, vendor relationships (including rebates) and/or cost of sales created circumstances that delayed the timely completion of the periodic filing.</p> <p>Registrant has identified accounting issues associated with the expenses.</p> <p>Calculations regarding the cumulative effect of applying a change in accounting principle or methodology (e.g., cash vs.. accrual, LIFO vs.. FIFO, straight-line depreciation vs.. accelerated, etc.) delayed the filing of the periodic report.</p> <p>Registrant has identified accounting issues associated with depreciation of assets, amortization of assets and/or amortization of debt premiums or discounts.</p> <p>Registrant has identified accounting issues regarding intercompany reconciliation arising out of the existence of a complicated and/or large company structure.</p> <p>Registrant has identified errors or irregularities associated with financial statement, footnote and/or segment reporting information.</p> <p>Registrant identifies accounting issues with balance sheet classification of items. Primarily this category is made up of misclassified assets as short term versus long term or whether certain assets were properly considered cash equivalents versus short-term investments.</p> <p>Consists primarily of internal control or accounting deficiencies associated with a registrants disclosure of financial/operational ratios or margins and earnings per share calculation issues. Also included are circumstances where income statement items are misclassified between say gross margin and selling general and administrative expenses. This may also deal with issues associated with exceptional items.</p> <p>Issues concerning the recording of gains or losses from the sale of assets, interests, entities or liabilities caused a delay in the timely completion of the periodic filing.</p> <p>Consists mainly of internal control or accounting deficiencies in approach, theory or calculation associated with the proper classification of debt instruments as short term or long term. This area can also refer to reclassifications between equity and debt accounts or within equity accounts</p>		
Restatement	Registrant has identified a restatement possible or definite.	440	12%
Undue expenses	<p>Standard response, whereby, the registrant identifies the report cannot be filed without undue to hardship and expense. Sometimes referred to as effort and expense.</p> <p>Periodic report is late because a shortage in personnel precluded a timely filing.</p>	417	11%

Table 3. Reasons for late filing (continued)

Broad Reasons	Detailed Reasons	#	%
Internal control	Registrant identifies a material weakness in internal controls over financial reporting/disclosure controls. The delay in the filing of the periodic report is attributable to difficulties surrounding the implementation of controls and procedures required to meet disclosure requirements pursuant to section 302 or section 404 of the Sarbanes-Oxley Act of 2002.	326	9%
Investigation by SEC or a special committee	The present undertaking of an internal or external investigation has delayed filing of the periodic report. The SEC or a special committee is often identified with the investigation. The filing of the periodic report is delayed to address issues contained in a comment letter from the SEC or in other communications with the SEC.	258	7%
Review	The present undertaking of a review has delayed filing of the periodic report. The filing of the periodic report is delayed due to the need to review the calculations associated with the recording of debt or equity accounts (e.g., debt, equity or quasi debt/equity instruments with conversion options including beneficial conversion features). The filing of the periodic report is delayed due to the need to review the calculations associated with the recording of assets, goodwill, intangible or contra liabilities that are required to be valued or assessed for diminution in value on a periodic basis (e.g., intangible assets, goodwill, buildings, securities, investments, etc.) The need to review the calculations associated with derivative instruments (e.g., valuation of financial instruments such as hedges on currency swings, interest rate swaps, purchases of foreign goods, guarantees on future sales, etc.) delayed the filing of the periodic report. The filing of the periodic report is delayed due to the need to review the calculations associated with the foreign The filing of the periodic report is delayed due to the need review calculations of cash flow (frequently regarding non-routine transactions) to ensure that they are consistent with GAAP. The filing of the periodic report is delayed due to the need to review the calculations associated with the recording of debt or equity accounts (e.g., debt, equity or quasi debt/equity instruments with conversion options including beneficial conversion features). The need to review calculations regarding the capitalization of expenditures (e.g., inventory, construction, intangible asset, R&D, software or product development, etc.) delayed the timely completion of the periodic filing.	218	6%
Matters with compensation	Matters associated with deferred, stock based or executive compensation (including, but not limited to, the backdating of stock options) has delayed the timely completion of the periodic filing.	168	5%

Table 3. Reasons for late filing (continued)

Broad Reasons	Detailed Reasons	#	%
Indebtedness and negotiations	Registrant identifies pending litigation, a bankruptcy, or non-compliance of debt agreement terms. The periodic report is late because the registrant is presently in active negotiations with the SEC, regulators, tax authorities, creditors etc.	146	4%
Auditing	The audit was not finished as of date of filing the form 12b-25 (notification of late filing). The circumstances surrounding the dismissal, resignation, and/or new engagement of an auditor delayed the filing of the periodic report.	108	3%
Financial problem	The periodic report is late due to business reorganization, insolvency or dissolution. The registrant has identified it's ability to continue as a going concern and/or has financial problems.	89	2%
Business events	A present effort to restructure debt or obtain funding or refinancing delayed the filing of the periodic report. The periodic report is late due to the business events involving the (1) an acquisition of another entity, (2) a merger of two or more entities, and/or (3) the termination or reorganization of a business venture. Registrant identifies the sale and/or liquidation of assets delayed the timely completion of the periodic filing. Registrant has identified matters concerning a private placement (a debt or equity security sold to the private market)	58	2%
Others	The present efforts to effectuate an initial public offering or conclude the new undertaking of a business venture has delayed the filing of the periodic report. The recent dismissal, resignation, reduction, turnover, and/or hiring of new personnel delayed the filing of the periodic report. An event beyond registrant's prevention or control delayed the filing of the periodic report. The filing of the periodic report was delayed due to information technology or software problems. Registrant provides a reason for the delay that is not categorized in the database taxonomy of issues. The periodic report is delayed due to difficulties associated with the process of filing reports to SEC electronically.	82	2%
No reasons provided	A change in filing classification identifies new registration or change of registration status. The registrant has encountered delays or difficulties with information system implementation. Registrant identifies a change in office location of the business, or a substantial portion thereof. The registrant's identifies a change in fiscal year. Necessary information was unavailable as of date of filing the form 12b-25 (notification of late filing). Form 12b-25 (notification of late filing) submitted without an explanation for delay.	43	1%
Total		3680	100%

Table 4. Descriptive statistics

Panel A. Simple descriptive statistics

This panel reports simple descriptive statistics for firms that delay financial reports but do not receive default notice from bondholders and for firms that delay financial reports and receive default notice from bondholders. Financial firms are excluded from the sample. Definition of variables is in Table 1.

	Default Notice=0			Default Notice=1			Difference (P-Value)	
	Median	MEAN	STD	Median	MEAN	STD	Wilcoxon	T Test
CASH	0.09	0.15	0.16	0.15	0.21	0.20	0.00	0.01
BNK	0.00	0.27	0.45	0.00	0.19	0.39	0.11	0.09
LOAN	0.18	0.29	0.31	0.04	0.20	0.26	0.01	0.01
PIH	0.59	0.50	0.39	0.81	0.68	0.34	<0.0001	<0.0001
DED	0.00	0.13	0.34	0.00	0.15	0.36	0.67	0.67
QIN	0.00	0.13	0.34	0.00	0.07	0.25	0.12	0.05
TRA	0.00	0.12	0.32	0.00	0.03	0.16	0.02	<0.0001
AGE	4.82	5.25	3.37	3.91	3.96	2.15	0.00	<0.0001
BND_SIZE	160.90	215.87	185.23	200.00	247.86	193.44	0.03	0.19
AT	6.74	6.96	1.56	6.79	6.94	1.46	0.75	0.91
RET	0.02	0.03	0.37	-0.08	-0.09	0.26	0.00	0.01
CONVERT	0.00	0.28	0.68	0.43	0.51	0.48	<0.0001	0.00
HY	1.00	0.89	0.31	1.00	0.96	0.20	0.06	0.01
NR	0.00	0.09	0.28	0.00	0.09	0.29	0.78	0.79

Panel B. Correlation matrix

This panel reports the correlation matrix among the dependent variable and independent variables. Pearson (Spearman) correlation is above (below) the diagonal. *, **, and *** denotes statistical significance at 10%, 5% and 1% respectively. Financial firms are excluded from the sample. Definition of variables is in Table 1.

	CASH	BNK	LOAN	PIH	DED	QIN	TRA	AGE	BND_SIZE
CASH	1.00	-0.18 ***	-0.42 ***	0.15 ***	0.00	-0.04	0.01	-0.18 ***	0.10 ***
BNK	-0.21 ***	1.00	0.00	0.19 ***	0.05 *	-0.06 **	0.04	0.04	0.05
LOAN	-0.28 ***	0.04	1.00	-0.03	0.01	0.02	0.08 ***	0.20 ***	-0.04
PIH	0.12 ***	0.20 ***	-0.01	1.00	0.08 ***	-0.02	0.04	-0.12 ***	0.11 ***
DED	0.00	0.05 *	0.03	0.08 ***	1.00	-0.10 ***	-0.11 ***	0.02	0.09 ***
QIN	-0.04	-0.06 **	0.03	0.00	-0.10 ***	1.00	-0.05 **	0.09 ***	-0.05 *
TRA	0.01	0.04	0.05	0.06 **	-0.10 ***	-0.06 **	1.00	-0.01	-0.14 ***
AGE	-0.17 ***	0.08 ***	0.25 ***	-0.14 ***	0.04	0.08 ***	-0.05 *	1.00	-0.07 **
BND_SIZE	0.04	0.10 ***	-0.01	0.14 ***	0.09 ***	-0.08 **	-0.15 ***	-0.03	1.00
AT	-0.10 ***	0.31 ***	0.22 ***	0.32 ***	0.09 ***	-0.08 ***	-0.07 **	0.17 ***	0.61 ***
RET	-0.01	0.06 *	0.03	0.09 ***	-0.02	-0.03	0.01	0.01	-0.02
CONVERT	0.48 ***	-0.04	-0.39 ***	0.28 ***	-0.06 **	0.06 **	0.03	-0.36 ***	0.00
HY	-0.02	-0.13 ***	0.01	-0.18 ***	-0.04	0.04	0.09 ***	-0.16 ***	0.00
NR	0.17 ***	-0.12 ***	-0.11 ***	-0.08 ***	0.01	-0.04	-0.04	-0.08 ***	0.00

Panel B. Correlation matrix (continued)

This panel reports the correlation matrix among the dependent variable and independent variables. Pearson (Spearman) correlation is above (below) the diagonal. *, **, and *** denotes statistical significance at 10%, 5% and 1% respectively. Financial firms are excluded from the sample. Definition of variables is in Table 1.

	AT	RET	CONVERT	HY	NR
CASH	-0.18 ***	-0.02	0.23 ***	0.00	0.22 ***
BNK	0.30 ***	0.03	-0.06 **	-0.13 ***	-0.12 ***
LOAN	0.11 ***	0.04	-0.17 ***	0.01	-0.09 ***
PIH	0.33 ***	0.13 ***	0.17 ***	-0.19 ***	-0.09 ***
DED	0.11 ***	-0.04	-0.03	-0.04	0.01
QIN	-0.07 **	-0.03	0.07 **	0.04	-0.04
TRA	-0.08 ***	0.05	-0.01	0.09 ***	-0.04 ***
AGE	0.16 ***	0.00	-0.15 ***	-0.18 ***	-0.09 ***
BND_SIZE	0.58 ***	-0.03	-0.02	-0.02	-0.03
AT	1.00	0.01	-0.07 **	-0.21 ***	-0.22 ***
RET	0.05	1.00	-0.06 *	0.00	0.00
CONVERT	-0.07 **	-0.11 ***	1.00	0.02	0.07 **
HY	-0.21 ***	0.00	0.02	1.00	0.10 ***
NR	-0.23 ***	-0.02	0.17 ***	0.10 ***	1.00

Table 5. Logit regression of indicator for default notice (Notice) on cash, bank loan, institutional holdings, type of institutions, and control variables

$$\text{Prob}(\text{Notice}=1) = F(\beta_0 + \beta_1 \text{CASH} + \beta_2 \text{BNK} + \beta_3 \text{LOAN} + \beta_4 \text{PIH} + \beta_5 \text{DED} + \beta_6 \text{QIN} + \beta_7 \text{TRA} + \beta_8 \text{AGE} \\ + \beta_9 \text{BND_SIZE} + \beta_{10} \text{AT} + \beta_{11} \text{RET} + \beta_{12} \text{CONVERT} + \beta_{13} \text{HY} + \beta_{14} \text{NR})$$

This table reports the estimation results of variant versions of the logit model. Financial firms are excluded from the sample. Variables are defined in Table 1. Z-statistics are adjusted by clusters of firms and the corresponding P-values are reported behind coefficients. The marginal effect represents the change in probability that the firm receives a default notice given a change in the independent variable over a standard deviation at the means of the independent variables. For indicator variable, the marginal effect represents the change in probability that the firm receives a default notice when the indicator value changes from 0 to 1.

NOTICE=1/0	(1)			(2)			(3)			(4)			(5)			(6)		
	Coef.	P> z	dy/dx	Coef.	P> z	dy/dx	Coef.	P> z	dy/dx	Coef.	P> z	dy/dx	Coef.	P> z	dy/dx	Coef.	P> z	dy/dx
CASH	1.72	0.01	10.7%												0.33	0.71	1.6%	
BNK				-0.63	0.06	-3.5%									-0.69	0.06	-3.1%	
LOAN				-1.37	0.05	-8.4%									-1.14	0.07	-5.6%	
PIH							1.62	0.00	9.4%	1.67	0.00	8.0%			1.59	0.00	7.8%	
DED										0.03	0.93	0.2%			0.03	0.74	0.1%	
QIN										-1.00	0.08	-3.9%			-0.97	0.10	-3.6%	
TRA										-1.49	0.06	-5.0%			-1.41	0.07	-4.5%	
AGE													-0.14	0.02	-0.8%	-0.07	0.21	-0.4%
BND_SIZE	0.00	0.65	0.0%	0.00	0.75	0.0%	0.00	0.03	0.0%	0.00	0.08	0.0%	0.00	0.64	0.0%	0.00	0.78	0.0%
AT	0.10	0.44	0.6%	0.17	0.16	1.1%	0.13	0.29	0.6%	0.16	0.22	0.8%	0.08	0.59	0.5%	0.09	0.58	0.4%
RET	-0.90	0.00	-5.6%	-0.79	0.01	-4.9%	-1.10	0.00	-6.4%	-1.24	0.00	-6.6%	-0.86	0.00	-5.1%	-1.16	0.00	-5.7%
CONVERT	0.09	0.25	0.6%	0.08	0.30	0.5%	0.08	0.36	0.5%	0.11	0.19	0.6%	0.10	0.23	0.6%	0.05	0.53	0.2%
HY	1.06	0.06	4.8%	0.96	0.08	4.4%	1.04	0.07	4.5%	1.18	0.05	4.4%	0.86	0.14	4.0%	1.16	0.06	4.0%
NR	0.26	0.71	1.8%	0.44	0.54	3.2%	0.53	0.40	3.8%	0.40	0.54	2.4%	0.34	0.60	2.3%	0.29	0.65	1.6%
Intercept	-4.64	0.00		-4.26	0.00		-4.04	0.00		-3.74	0.00		-3.40	0.00		-4.55	0.00	
obs	55/666			55/650			55/670			55/670			55/670			55/650		
Pseudo R2	0.05			0.05			0.06			0.08			0.05			0.11		
clusters	325			314			325			325			325			314		

Table 6. Stock and bond market reaction to bondholders' notice of default

This table reports stock market reaction to bondholders' issuance of default notice when firms delay in financial reporting. The sample firms must meet three criteria: (1) file NT forms, (2) have daily stock information available in CRSP, and (3) receive default notices from bondholders.

The date that firms receive bondholders' default notice is defined as the event date. The event window is from 5 days before to 5 days after the event date. The average abnormal daily return is reported in the event window. For each stock, abnormal return is calculated as daily stock return minus daily return on S&P' composite index. Abnormal return on each event day (AR) is the average of all the abnormal returns on a day. T-statistics and corresponding P-values are reported behind AR.

Day	LF & Default Notice		
	AR	T	P
-5	0.33%	1.27	0.21
-4	-0.13%	-0.41	0.69
-3	-0.09%	-0.26	0.79
-2	-0.25%	-0.70	0.48
-1	0.31%	1.04	0.30
0	-0.60%	-2.04	0.04
1	-0.53%	-1.10	0.27
2	0.00%	0.00	1.00
3	0.28%	0.84	0.40
4	-0.04%	-0.13	0.90
5	-0.10%	-0.37	0.71

Table 7. Bond market reaction to bondholders’ notice of default

This table reports bond market reaction to bondholders’ issuance of default notice when firms delay in financial reporting. The sample firms must meet three criteria: (1) file NT forms, (2) have bond trading information available in TRACE, and (3) receive default notices from bondholders.

The date that firms receive bondholders’ default notice is defined as the event date. The event window is from 5 days before to 5 days after the event date. The average abnormal daily change in bond spread is reported in the event window. For each bond, abnormal daily change in bond spread is daily change in bond spread minus normal daily change in bond spread. Normal daily change in bond spread is the average of daily change in bond spread during the non-event window defined as from 70 days to 10 days before the date filing NT forms. The average abnormal daily change in bond spread on event day (ACS) is the average of all the abnormal daily change in bond spread on a day. T-statistics and corresponding P-values are reported behind ACS.

Day	LF & Default Notice		
	ACS	T	P
-5	0.22%	1.28	0.21
-4	-0.11%	-1.24	0.22
-3	-0.17%	-1.43	0.16
-2	-0.03%	-0.23	0.82
-1	-0.03%	-0.38	0.71
0	0.02%	0.21	0.83
1	0.10%	0.91	0.37
2	-0.10%	-0.83	0.41
3	0.05%	0.52	0.60
4	-0.25%	-2.09	0.04
5	0.17%	0.94	0.35