

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 that failed to file their financial statements on time. 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 violations. We find that activist bondholders are more likely to target firms of higher default (in payment) risk, with 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 that failed to file their financial statements on time. When companies fail to file their financial statements in a timely manner, 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 interest or principal.

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

Our focus on violation of the timely financial reporting covenant is motivated by the following reasons. First, the violation of the timely filing financial reports is an evident technical default where the difficulty of detection by lenders is minimal (Kahan and Rock, 2008). Second, there is variation in bondholder behavior in the face of such a technical default. Among those firms that failed to file their financial statements in a timely manner, a few are targeted by activist bondholders. This “selective” behavior provides a unique opportunity to investigate the factors that contribute to bondholder activism. Third, bondholder activism in response to the technical default caused by failure to report on a time has constituted a significant economic event. The aggregate amount of the

¹ We provide more detail on bondholders’ enforcement of creditor’s rights in Section 2.2 of this paper.

outstanding bonds in our sample companies being targeted by activist bondholders because of late filing 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), 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 and bond price drops when a firm delays its financial reporting. Stock price further goes down but bond price increases if the late filing firm is 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 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 induced by institutional shareholders' 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 borrowing companies and the markets in general. The attacked bonds were issued with the expectation of no action taken by bondholders when technical defaults trigger as is the 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 identifies factors that contribute to bondholder activism. Shareholders, banks, and bondholders are the 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,

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

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 maturity 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 contract efficiency, examines the accounting choices when financial covenants are binding, and highlights the importance of financial reports in the debt market⁴. This paper

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.

⁴ Related research includes 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 Jambalvo, 1994; Jensen and Meckling, 1976; Watts, 1977; Smith and Warner, 1979; Holthausen and Watts, 2001.

provides direct evidence for 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 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 a common mechanism for shareholder protection in corporate governance and control (see, for example, Black, 1990 and 1991; Admati et al., 1994; and Karpoff et al., 1996). Activist shareholders, such as mutual funds and pension funds, have employed various strategies, including “behind the scenes” discussion with company management and board members, shareholder proposal, proxy contest, and litigation to influence portfolio companies (e.g., Gillan and Starks, 2000 and 2007; Guercio and Hawkins, 1999; Smith, 1996). Recently emerged as a central player in shareholder activism, activist hedge funds differ from the traditional activist shareholders

in their aggressive tactics and their forceful actions against under-performing companies can 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 substantially all assets, a technical default may arise.⁵ 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).

⁵ 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.

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 inaction in response to 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. The main reason for the lack of empirical study on bondholders' activism is that bondholders rarely take actions against companies in the case of technical defaults. 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 low-enforcement 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.⁶ 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.

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. Most firms with securities trading need to file Form 10-K and Form 10-Q with the SEC within a statutory period after the fiscal period end.⁷ 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

⁶ 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.

⁷ Firms that have registered securities under Section 12 of the 1934 Securities and Exchange Act are required by Section 13 and firms that have registered securities under the 1933 Securities Act are required by Section 15(d) to file periodic reports. 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>.

due date. The forms are labeled as NT-10K or NT-10Q when the firm delays in filing 10-K or 10-Q, respectively.

TIA of 1939 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 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), thus 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.⁸ This reflects a shift in bondholder behavior.

Second, the failure to file on time with the trustee involves obvious and undisputable covenant violations, compared with other opaque and ambiguous defaults.⁹ For example, 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. 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.¹⁰

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 failure to file to the trustee on time from 2005 to 2007 is over \$59 billion.

⁸ Hedge funds play hardball with firms filing late financials, the Wall Street Journal, A1, August 29, 2006. The unexpected ascent of covenant defaults, *Financier Worldwide*, October 2005, by Aftanas and Vebman.

⁹ Technical defaults can be classified into a) opaque defaults where it is costly to obtain the information required to determine where 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. See Kahan and Rock, 2008 for more details.

¹⁰ 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.

2.2.3. 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 low response to violations of bond covenants, 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 large-sample evidence for us to address this question.

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. A timeline is depicted in Figure 1. To give the reader a flavor of how bondholders take on the borrowing firm when the firm delays financial reporting, we provide a case description of the interaction between Nolelis Inc. and its bondholders in the Appendix.

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.

III. Hypotheses Development and Research Design

Why would activist bondholders pursue vigorous actions against a few targets, while ignoring the rest? In this section, we try to address this selective enforcement property in bondholder’s activism. We also examine the tactics taken by activist bondholders, and study how the stock and bond markets respond to bondholder activism.

3.1. Bondholders’ decision model

When technical default on timely filing covenant triggers, bondholders have two choices. One is to grant a waiver and continue to hold the bond. Without the loss of

generality, we take the zero-coupon discount bond as an example, and the expected payoff to bondholders in this case is $D^* = [(1 - \alpha)F + \alpha V^*] \bullet \exp[-r(T - t)]$ (1), where α is the expected default probability, F is the face value of the bond, V^* is the firm default value when the bond matures ($V^* < F$), r is the discount rate for the bond, and $(T - t)$ is the time to maturity remaining on the bond when the default triggers.

The other choice for bondholders is to issue a letter of default notice and accelerate the payment of affected bonds. The payoff to bondholders is $D = \min(F, V) - C$ (2), where V is the firm value upon receipt of the default notice from the bondholders, and C is the opportunity cost and the implementation cost involved in such bondholder activity. A time line to demonstrate the payoff to bondholders at different time is provided in Figure 2.

Considering these two alternatives, bondholders are likely to target the violators when the payoff of attacking the violating borrower (D) exceeds the payoff of inaction (D^*), i.e., $\min(F, V) - C > [(1 - \alpha)F + \alpha V^*] \bullet \exp[-r(T - t)]$ (3). We can rearrange equation (3) to obtain $\min(F, V) - [(1 - \alpha)F + \alpha V^*] \bullet \exp[-r(T - t)] > C$ (4). The left-hand side is the benefit, i.e., the welfare improvement for the bondholders if they attack the borrower versus inaction. The right-hand side is the costs associated with the attack. Activist bondholders would attack the violating borrowers, if and only if the welfare improvement from the attack exceeds the associated costs.

In response to default notice from bondholders, the borrowers often offer to pay a concession fee to obtain a new filing deadline. In practice, some activist bondholders have agreed to collect the concession fee and to extend a new filing deadline through renegotiation with the borrowers. Activist bondholders will accept the concession fee to

extend the filing deadline if and only if by extending the deadline they are at least as well-off as with immediate payment of the bond. Thus, acceleration of affected bonds can be considered the baseline for the attack scenario.

In the next section, we analyze factors that could affect the benefits and costs associated with the activist bondholder's attack and see whether these factors influence bondholder's decision to attack the violating borrower.

3.2. Factors in bondholders' decision

From equation (4) $\min(F, V) - [(1 - \alpha)F + \alpha V^*] \bullet \exp[-r(T - t)] > C$, we can see that if r , $(T - t)$, and α are larger, activist bondholders are more likely to attack the borrower. Bond face value F and firm value V may positively affect bondholders' decision to attack. Additionally, the lower the firm value at maturity T when a firm defaults on its bond payment, V^* , the more likely bondholders decide to issue default notice. And the lower the costs associated with bondholder activism, the more likely bondholders will issue default notice.

The bond discount rate, r , is affected by the risk free rate and the borrower's credit rating. A higher risk free rate and a poor credit rating correspond to a higher r . We extrapolate the risk free rate, RF , from the treasury yield curve at the time of late filing. The credit rating, $RATING$, is measured by the numeric transformation of S&P long-term debt rating. If the S&P long-term debt rating is A+, $RATING=1$; if the S&P long-term rating is A, $RATING=2$; ...; if S&P long-term rating is D, $RATING=18$; and if no S&P rating, $RATING= 19$. A dummy variable (NR) indicating the lack of S&P rating is included as a control variable.

The default probability at maturity, α , is proxied by the HY dummy variable. If a firm is rated B or below by S&P, HY is set to 1; otherwise, HY is 0. Firms rated below investment grade have a higher default probability.¹¹

Additionally, the longer the time-to-maturity remains on the affected bond, the more likely the bondholders will issue default notice. We use the logarithm of value weighted average of $(T - t)$ to measure the maturity of the bonds outstanding for each borrowing firm.

The firm value at late filing, V , is proxied by the logarithm of total assets at the end of fiscal year prior to the date of late filing (labeled as ASSET). We use the logarithm of principal value of bonds outstanding at the time of late filing (BND_SIZE) to measure F . If a firm has multiple bonds outstanding, the logarithm of sum of bond value is taken.

The cost, C , 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. Additionally, the costs of bondholder activism could be lower, if the activist bondholders are hedge funds who are more comfortable with negotiation with the management and who have more incentive to engage bondholder activism.

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. The trading

¹¹ We are in the process of calculating the default likelihood indicator (DLI) as proposed by Vassalou and Xing (2004). In a new version, we will replace DLI with the HY dummy variable.

activeness is measure by the percentage of trading volume in total outstanding value during the 10 day period after the late filing date, and the variable is labeled as (TRD_VOL)¹².

We choose shareholder ownership and bank lending to measure the possible change of firm value from V to V^* .

3.2.1. Shareholder profile

In selecting which violators to target, activist bondholders inevitably will take shareholder profile of the borrower into consideration due to conflicts of interests between shareholders and debt-holders. Specifically, for the borrowing firms where bondholders are likely to be expropriated by shareholders, activist bondholders can receive higher benefits if they issue default notice. This is because that shareholder stealing could further reduce V^* relative to V if bondholders do nothing. In other words, the expected value of V^* is lower in those firms where shareholders self dealing is serious.

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.

¹² Trading activity measured after the late filing date may be endogenous to the extent that activist bondholders will actively trade after the late filing date to acquire the necessary shares of bond in order to be eligible to issue the default notice. However, if a bond is not liquid, it is still hard to make the trading happen even the activist bondholders have the intention to trade.

Those shareholders could take more risky projects, issue dividends, or under-invest to benefit themselves at other stakeholders' expense. 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 and consequently can reduce firm value. Against the backdrop of potential wealth transfer strategies by shareholders, bondholders may 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.

The presence of institutional shareholders may reduce V^* , firm value at bond maturity, in equation (4) and increase the discount rate of bond, r . Both effects lead to increased likelihood of bondholder's attack. Thus, activist bondholders are likely to issue default notice in firms where the presence of institutional investors is strong, due to reduced V^* and increased discount rate of bond, r .

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 partly 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 at shareholder's disposal. Shareholders could make alliances with the management to fight back, which makes the bondholder action more difficult and 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.

3.2.2. Bank loans

Bank loans may mitigate shareholder's self-dealing and hence can prevent the decrease in V^* . According to equation (4), the welfare improvement from bondholder

activism activity is 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 increase in wealth fare through bondholder activism is smaller when borrowers are closely monitored by banks and have strict loan covenants.

Relationship bank lenders are considered more informative of borrowers 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 loans. 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

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 effort to examine the compliance with covenants when they lend a greater amount of money to borrowers.

3.3 Research design

A logit model is used to in the empirical analysis.

$$Prob(Notice=1) = F(\beta_0 + \beta_1 PIH + \beta_2 DED + \beta_3 QIN + \beta_4 TRA + \beta_5 BNK + \beta_6 LOAN + \beta_7 RF + \beta_8 RATING + \beta_9 HY + \beta_{10} NR + \beta_{11} MAT + \beta_{12} ASSET + \beta_{13} BND_SIZE + \beta_{14} TRD_VOD)$$

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. Compared with firms not attacked by bondholders, the attacked firms have higher institutional holding percentage but are less likely to be dominated by quasi-indexer or transitory institutions. The attacked firms own less bank loans than the un-attacked firms, and the proportion of firms with a majority of loans issued by relationship banks is smaller in the attacked firms than in the un-attacked firms. The risk-free interest rate is higher in the attacked group. There is not much difference in credit rating across these two groups, but firms attacked by bondholders are more often rated below the investment grade. On average 9% of the firms are not rated by S&P in both groups. There is not

much difference in terms of time to maturity and total assets between these two groups. It is clear that firms receiving the default notice issue bonds of larger size than firms not receiving the default notice. Although trading in the bond market is thin, the attacked group has relatively more active trading activities.

Table 4, Panel B presents the correlation matrix among the variables. Pearson (Spearman) correlation is above (below) the diagonal. By construction of the variables, RATING is positively correlated with HY and NR. ASSET is highly positively correlated with BND_SIZE and negatively with RATING because firms with greater assets are more likely to issue bonds of larger size, and have a better credit rating.

V. Results and Discussions

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

Estimation results 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, dy/dx , 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.

Consistent with the hypothesis that firms under greater influence of institutional shareholders are more likely to be attacked by bondholder, the coefficient on PIH is significantly positive. One standard deviation increase in PIH corresponds to 7.5%

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 associated with institutional shareholder's management discipline function.

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 values of the coefficient on TRA are 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 3.8%; however, if quasi-indexer institutions become dominant, the probability will decrease by 2.7%. 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 less likely to attack firms dominated by short-term oriented shareholders.

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 2.9% 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 5.9%. These results reflect that bondholders value the cross-monitoring offered by banks and the cross-protection provided by loan covenants.

The above analysis suggests that bondholder activism is more vigorous in firms 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 Roberts (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.

Consistent with the predictions generated from equation (4), the coefficient before RF is positive, RATING is negative, and HY is positive. The estimation results indicate that bondholders are more likely to issue a default notice to a borrower that violates the timely filing covenant when the bond discount rate is bigger and the default risk is higher. The coefficient before HY is statistically significant but RF and RATING are not.

The coefficient before MAT is negative and insignificant, which is similar to the finding by Chen and Wei (1993). Chen and Wei (1993) predict that creditors are less likely to waive violations of accounting-based debt covenants when the debt maturity is longer, but they find an insignificant positive coefficient before MAT when they model the waiver decision. The firm size and the bond size are positively correlated with the probability of attacking a borrower, but the coefficients are not statistically significant.

The significant positive coefficient on TRD_VOL 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.

5.2 Market reactions

To check whether bondholder activism is to maximize bondholders' wealth at the cost of shareholders, we examine the stock and bond market reaction in response to the event of late filing and the event of receiving default notice.

In the stock market, the abnormal return is calculated as the daily stock return minus the daily return on NYSE-AMEX-NASDAQ index. We follow the recommendation by Bessembinder et al. (2008) to calculate the daily abnormal bond return, which is the daily bond return minus the value weighted average return on the matching portfolio based on Moody's seven major rating categories (Aaa, Aa, A, Baa, Ba, B and below B). The bond return is calculated using the clean price.¹³ If a bond is traded several times in a given day, the weighted average return for trades larger than \$10,000 is used as the daily bond return. If a firm has multiple bonds outstanding, the market value weighted average of abnormal returns of all the bonds is used as the abnormal return for that firm.¹⁴

Abnormal return on event day (AR) is the average abnormal return of all the firms on a given day, and the two-tailed p-value is reported behind each AR. Cumulative abnormal return (CAR) is the sum of AR from the beginning of the event window to the event day. The CARs in the stock market and the bond market are depicted in the same chart. Figure 3 and Figure 4 demonstrate the CARs around the event of late filing and the event of receiving the default notice, respectively.

Table 6 reports the stock and bond market reactions to the event of late filing. The date that firms file NT forms is defined as the event date and labeled as 0. The event

¹³ Using clean prices to calculate bond return could be problematic for bonds in which the accrued interest differs significantly from the average accrued interest for the matching portfolio. Bessembinder et al (2009) find the bias using clean prices to calculate bond return is small in a small event window study.

¹⁴ See Bessembinder et al. (2008) for more detail on daily abnormal bond return calculation.

window is from 5 days before to 10 days after the event date. The sample consists of firms that have bonds outstanding and delay filing financial reports. On the event day, the abnormal stock return and the abnormal bond return are both significantly negative. The downward CAR in the stock and bond markets suggests that late filing is an unfavorable signal to investors.

Table 7 reports the stock and bond market reactions to the event of receiving the default notice. The date that firms receive the default notice is defined as the event date and labeled as 0. The event window is from 5 days before to 10 days after the event date. The sample consists of firms that delay filing financial reports and hence receive the default notice. On the event day, the abnormal stock return is significantly negative and the abnormal bond return is significantly positive. The downward CAR in the stock market and the upward CAR in the bond market further support the view that shareholders lose and bondholders gain when a firm becomes activist bondholders' target.

Taken together, the results in Table 6 and Table 7 indicate that although late filing delivers negative information to both the stock and bond market, bondholders can increase their wealth at the cost of shareholders by taking on firms on the ground of breach of bond covenants, i.e. delay in filing financial reports.

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 of bondholder activism and find the factors that contribute to it. 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 has limited research on bondholder activism.

We investigate the selective property of bondholder activism with the perspective of associated benefits and costs. We find that 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.

Event study on the stock market and bond market reveals that late filing is interpreted as negative information by both the stock market and the bond market. But the bond price goes up and stock price drops when the late filing firm is targeted by activist bondholders,

which suggests that bondholders can increase their wealth at the cost of shareholders by taking on firms upon the triggering of bond covenants.

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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Appendix. 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.

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
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	1 if the percentage of transient institutional shareholders holdings scaled by PIH is in top quintile of distribution, 0 otherwise.	Updated Bushee (1998)
BNK: Indicator for firms with majority ($\geq 50\%$) bank loans issued by relationship lenders	1 if the majority ($\geq 50\%$) 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

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

Variable	Definition	Data Source
RF: Risk free rate.	The interest rate extrapolated from the treasury yield curve at the time of late filing.	Federal Reserve Bank of New York
RATING: Numeric transformation of S&P credit rating.	If the S&P long-term rating is 'A+', RATING=1; if the S&P long-term rating is 'A', RATING=2; ... if the S&P long-term rating is 'D', RATING=18; and if no S&P rating, RATING=19 .	Compustat
HY: Indicator for a firm rated below investment	1 if RATING \geq 11 (i.e. S&P rating is B or below), 0 otherwise.	Compustat
NR: Indicator for lack of ratings by S&P	1 if no S&P rating, 0 otherwise.	Compustat
MAT: Time to maturity when a firm files an NT form.	Logarithm of weighted average of time to maturity (in months).	FISD Mergent, Compustat
ASSET: Logarithm of total asset at the end of the last fiscal year prior to the late filing.	Logarithm of average total assets at the fiscal year end prior to the late filing.	Compustat
BND_SIZE: The bond size measured when a firm files an NT form.	The logarithm of amount of bonds outstanding when a firm files an NT form. If a firm has multiple bonds outstanding, the sum is used.	FISD Mergent
TRD_VOL: Trading volume during the 10 day period after the late filing date.	Trading volume divided by outstanding principal during the 10 day period right after the late filing date.	TRACE, FISD Mergent

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	#	%
	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.		
	Registrant has identified accounting issues associated with the expenses.		
	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.		
	Registrant has identified accounting issues associated with depreciation of assets, amortization of assets and/or amortization of debt premiums or discounts.		
	Registrant has identified accounting issues regarding intercompany reconciliation arising out of the existence of a complicated and/or large company structure.		
	Registrant has identified errors or irregularities associated with financial statement, footnote and/or segment reporting information.		
	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.		
	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.		
	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.		
	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		
Restatement	Registrant has identified a restatement possible or definite.	440	12%
Undue expenses	Standard response, whereby, the registrant identifies the report cannot be filed without undue to hardship and expense. Sometimes referred to as effort and expense.	417	11%
	Periodic report is late because a shortage in personnel precluded a timely filing.		

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
PIH	0.43	0.45	0.40	0.78	0.62	0.38	0.00	0.00
DED	0.00	0.12	0.32	0.00	0.13	0.34	0.65	0.67
QIN	0.00	0.12	0.32	0.00	0.06	0.24	0.12	0.05
TRA	0.00	0.11	0.31	0.00	0.02	0.16	0.02	<.0001
BNK	0.00	0.24	0.43	0.00	0.17	0.38	0.07	0.09
LOAN	0.18	0.29	0.31	0.04	0.20	0.26	0.02	0.01
RF	4.61	4.52	0.45	4.70	4.64	0.42	0.01	0.02
RATING	12.00	12.61	5.19	12.00	13.27	4.77	0.23	0.25
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
MAT	4.09	4.05	1.07	3.96	4.07	0.82	0.60	0.92
ASSET	6.74	6.96	1.56	6.79	6.94	1.46	0.75	0.91
BND_SIZE	12.99	12.89	1.49	13.17	13.23	1.03	0.08	0.01
TRD_VOL	0.00	0.03	0.10	0.01	0.05	0.08	0.01	0.17

Panel B. Correlation matrix

This panel reports the correlation matrix among the independent variables. Pearson (Spearman) correlation is above (below) the diagonal. Financial firms are excluded from the sample. Definition of variables is in Table 1.

	PIH	DED	QIN	TRA	BNK	LOAN	RF	RATING	HY	NR	MAT	ASSET	BND_ SIZE	TRD_ VOL
PIH		0.12	0.02	0.08	0.25	-0.03	0.11	-0.22	-0.18	-0.08	0.22	0.33	0.07	0.03
DED	0.13		-0.08	-0.09	0.07	0.01	0.10	-0.05	-0.04	0.01	0.11	0.11	0.08	0.03
QIN	0.06	-0.08		-0.04	-0.03	0.02	-0.03	0.06	0.04	-0.04	-0.03	-0.08	-0.07	0.01
TRA	0.11	-0.09	-0.04		0.06	0.08	-0.02	0.14	0.09	-0.04	0.02	-0.08	-0.14	-0.09
BNK	0.26	0.07	-0.03	0.06		0.00	0.02	-0.29	-0.13	-0.12	0.13	0.30	0.17	0.14
LOAN	-0.01	0.04	0.03	0.05	0.04		-0.02	-0.17	0.00	-0.11	-0.16	0.11	0.10	-0.08
RF	0.10	0.09	-0.02	-0.01	-0.01	-0.02		-0.01	-0.12	0.00	0.26	0.10	0.07	0.01
RATING	-0.22	-0.05	0.07	0.14	-0.29	-0.05	0.06		0.25	0.32	-0.23	-0.51	-0.40	-0.05
HY	-0.19	-0.04	0.04	0.09	-0.13	0.02	-0.13	0.21		0.10	-0.16	-0.21	-0.03	-0.03
NR	-0.09	0.01	-0.04	-0.04	-0.12	-0.09	-0.04	0.32	0.10		-0.13	-0.22	-0.09	-0.08
MAT	0.24	0.14	-0.03	0.02	0.14	-0.07	0.18	-0.22	-0.17	-0.14		0.34	0.21	0.07
ASSET	0.32	0.09	-0.08	-0.07	0.32	0.21	0.04	-0.55	-0.21	-0.23	0.27		0.71	0.19
BND_ SIZE	0.12	0.08	-0.11	-0.12	0.17	-0.04	0.00	-0.35	0.00	-0.08	0.20	0.72		0.23
TRD_ VOL	0.01	0.10	0.00	-0.04	0.11	-0.02	-0.06	-0.15	-0.02	-0.12	0.08	0.28	0.43	

Table 5. Logit regression of indicator for default notice (Notice) on contributing factors

$$Prob(Notice=1) = F(\beta_0 + \beta_1 PIH + \beta_2 DED + \beta_3 QIN + \beta_4 TRA + \beta_5 BNK + \beta_6 LOAN + \beta_7 RF + \beta_8 RATING + \beta_9 HY + \beta_{10} NR + \beta_{11} MAT + \beta_{12} ASSET + \beta_{13} BND_SIZE + \beta_{14} TRD_VOL)$$

This table reports the estimation results 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, dy/dx , 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	Factors in Decision Model	Predicted Sign	Coeff.	P> z	dy/dx
PIH	V*	+/-	1.86	0.00	7.49%
DED	V*	+/-	-0.17	0.66	-0.66%
QIN	V*	+/-	-0.89	0.08	-2.73%
TRA	V*	+/-	-1.48	0.05	-3.77%
BNK	V*	-	-0.82	0.02	-2.85%
LOAN	V*	-	-1.47	0.02	-5.93%
RF	r	+	0.54	0.13	2.19%
RATING	r	+	0.03	0.32	0.14%
HY	α	+	1.15	0.03	3.16%
NR	control for r, α	?	0.01	0.99	0.03%
MAT	T-t	+	-0.12	0.29	-0.48%
ASSET	V	+	0.02	0.92	0.07%
BND_SIZE	F	+	0.22	0.16	0.90%
TRD_VOL	-C	+	1.48	0.08	5.97%
Intercept			-9.04	0.00	
Obs	62/845				
Pseudo R2	0.13				
Clusters	389				

Table 6. Stock and bond markets reaction to late filings

The date that firms file NT forms is defined as the event date. The event window is from 5 days before to 10 days after the event date. The sample consists of firms that have bonds outstanding and delay filing financial reports.

In the stock market, the abnormal return is calculated as the daily stock return minus the daily return on NYSE-AMEX-NASDAQ index. In the bond market, the abnormal return is calculated as the daily bond return minus the value weighted average return on the matching portfolio based on Moody's seven major rating categories (Aaa, Aa, A, Baa, Ba, B and below B). The bond return is calculated using a clean price. The market value weighted average of abnormal returns of all the bonds issued by the same firm is used as the abnormal return for that firm.

Abnormal return on event day (AR) is the average abnormal return of all the firms on a given day, and the two tailed P-value is reported behind AR. Cumulative abnormal return (CAR) is the sum of AR from the beginning of the event window to the event day.

Event Day	Stock Market Reaction			Bond Market Reaction		
	AR	P	CAR	AR	P	CAR
-5	-0.19%	0.05	-0.19%	-0.18%	0.39	-0.18%
-4	-0.26%	0.03	-0.45%	-0.11%	0.56	-0.29%
-3	-0.02%	0.87	-0.47%	0.43%	0.04	0.14%
-2	-0.23%	0.15	-0.69%	0.42%	0.10	0.56%
-1	-0.34%	0.01	-1.03%	-0.10%	0.77	0.46%
0	-0.36%	0.01	-1.39%	-0.84%	0.01	-0.38%
1	-0.77%	0.00	-2.16%	-0.21%	0.47	-0.59%
2	0.09%	0.62	-2.07%	-0.06%	0.68	-0.65%
3	-0.02%	0.86	-2.09%	-0.09%	0.54	-0.74%
4	-0.14%	0.29	-2.23%	-0.06%	0.77	-0.80%
5	-0.06%	0.64	-2.29%	0.30%	0.11	-0.50%
6	0.14%	0.29	-2.15%	-0.50%	0.21	-1.00%
7	0.13%	0.22	-2.02%	-0.11%	0.78	-1.11%
8	0.00%	0.99	-2.02%	0.00%	0.99	-1.11%
9	-0.12%	0.24	-2.13%	-0.19%	0.29	-1.30%
10	0.10%	0.32	-2.03%	-0.85%	0.14	-2.15%

Table 7. Stock and bond markets reaction to bondholders' notice of default

The date that firms receive the default notice from bondholders is defined as the event date. The event window is from 5 days before to 10 days after the event date. The sample consists of firms that receive the default notice due to delay in filing financial reports.

In the stock market, the abnormal return is calculated as the daily stock return minus the daily return on NYSE-AMEX-NASDAQ index. In the bond market, the abnormal return is calculated as the daily bond return minus the value weighted average return on the matching portfolio based on Moody's seven major rating categories (Aaa, Aa, A, Baa, Ba, B and below B). The bond return is calculated using a clean price. The market value weighted average of abnormal returns of all the bonds issued by the same firm is used as the abnormal return for that firm.

Abnormal return on event day (AR) is the average abnormal return of all the firms on a given day, and the two tailed P-value is reported behind AR. Cumulative abnormal return (CAR) is the sum of AR from the beginning of the event window to the event day.

Event Day	Stock Market Reaction			Bond Market Reaction		
	AR	P	CAR	AR	P	CAR
-5	0.32%	0.22	0.32%	-0.70%	0.12	-0.70%
-4	-0.14%	0.66	0.18%	0.03%	0.82	-0.67%
-3	-0.10%	0.77	0.08%	0.31%	0.22	-0.36%
-2	-0.28%	0.43	-0.21%	-0.19%	0.35	-0.55%
-1	0.29%	0.33	0.08%	0.03%	0.97	-0.52%
0	-0.61%	0.04	-0.53%	0.18%	0.08	-0.34%
1	-0.53%	0.27	-1.05%	-0.10%	0.85	-0.44%
2	-0.01%	0.97	-1.07%	-0.34%	0.24	-0.79%
3	0.26%	0.43	-0.81%	-0.25%	0.30	-1.03%
4	-0.05%	0.86	-0.85%	0.36%	0.42	-0.68%
5	-0.11%	0.70	-0.97%	0.24%	0.71	-0.43%
6	0.14%	0.58	-0.82%	0.08%	0.30	-0.36%
7	-0.03%	0.88	-0.86%	0.19%	0.51	-0.17%
8	-0.08%	0.82	-0.94%	0.23%	0.48	0.06%
9	-0.10%	0.70	-1.04%	0.73%	0.14	0.79%
10	-0.31%	0.18	-1.35%	-0.14%	0.45	0.65%

Figure 1. The timeline of bondholder activism in response to timely reporting violations

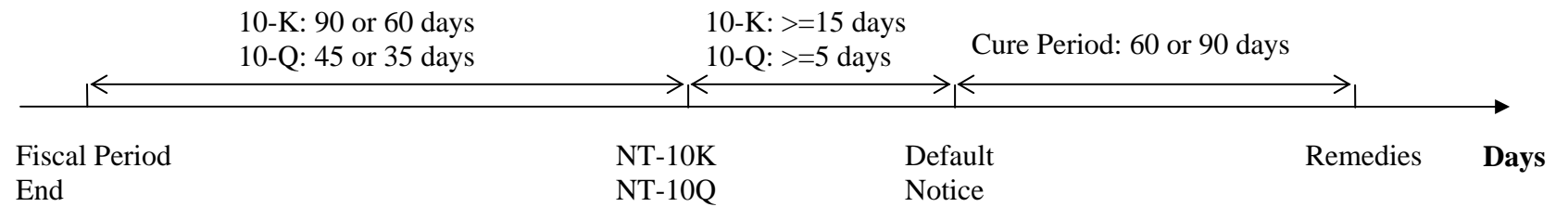


Figure 2. The payoff to bondholders in case of action and inaction

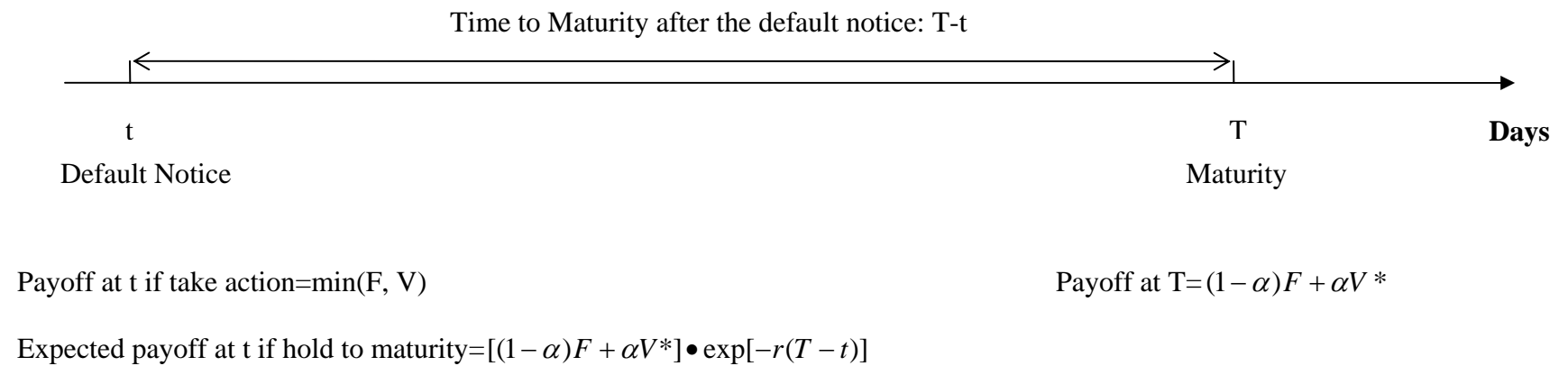


Figure 3. Stock and bond markets reaction to late filings

The date that firms file NT forms is defined as the event date. The event window is from 5 days before to 10 days after the event date. The sample consists of firms that have bonds outstanding and delay filing financial reports. In the stock market, the abnormal return is calculated as the daily stock return minus the daily return on NYSE-AMEX-NASDAQ index. In the bond market, the abnormal return is calculated as the daily bond return minus the value weighted average return on the matching portfolio based on Moody's seven major rating categories (Aaa, Aa, A, Baa, Ba, B and below B). The market value weighted average of abnormal returns of all the bonds issued by the same firm is used as the abnormal return for that firm. Abnormal return on event day (AR) is the average abnormal return of all the firms on a given day, and cumulative abnormal return (CAR) is the sum of AR from the beginning of the event window to the event day.

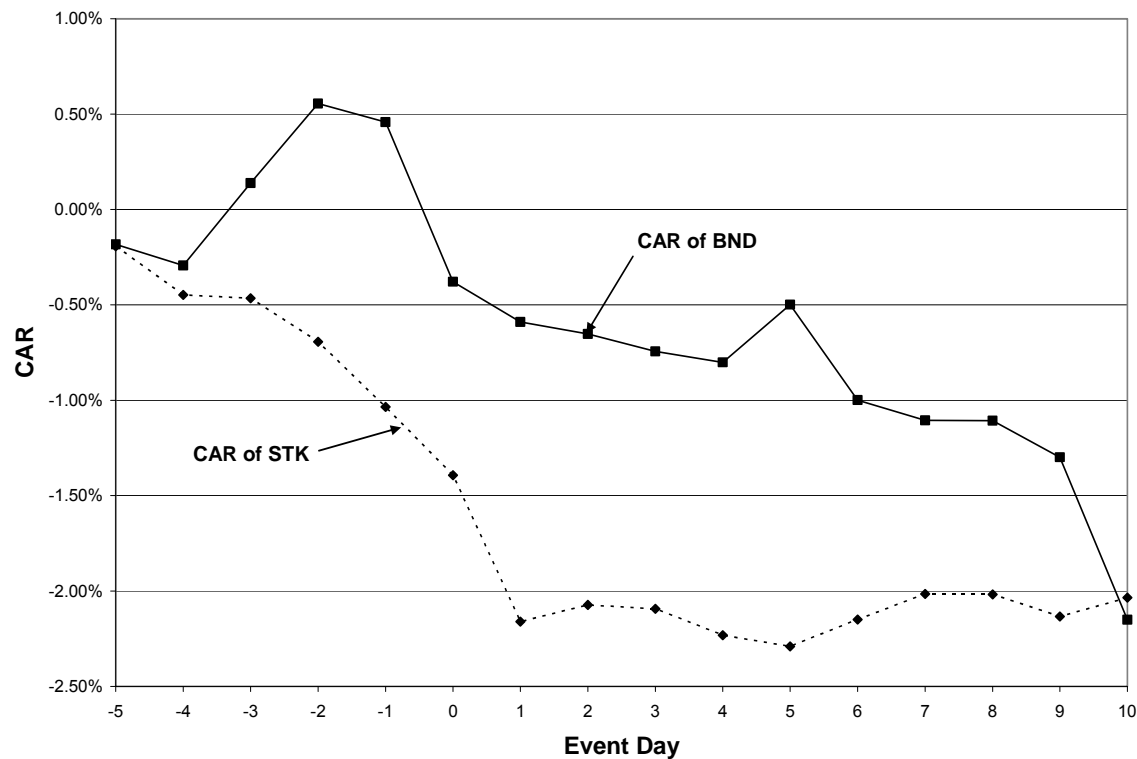


Figure 4. Stock and bond markets reaction to bondholders' notice of default

The date that firms receive the default notice from bondholders is defined as the event date. The event window is from 5 days before to 10 days after the event date. The sample consists of firms that receive the default notice due to delay in filing financial reports. In the stock market, the abnormal return is calculated as the daily stock return minus the daily return on NYSE-AMEX-NASDAQ index. In the bond market, the abnormal return is calculated as the daily bond return minus the value weighted average return on the matching portfolio based on Moody's seven major rating categories (Aaa, Aa, A, Baa, Ba, B and below B). The market value weighted average of abnormal returns of all the bonds issued by the same firm is used as the abnormal return for that firm. Abnormal return on event day (AR) is the average abnormal return of all the firms on a given day, and cumulative abnormal return (CAR) is the sum of AR from the beginning of the event window to the event day.

