

# **Target Bondholder Wealth and Shareholder Power During Mergers and Acquisitions\***

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December, 2005

## **Abstract**

Papers have shown that bond yield increases with the takeover vulnerability of firms, leading researchers to conclude that bondholders are being expropriated during takeovers. In this paper, we take a different approach and examine the impact of acquirer shareholder power on target bondholder wealth during a takeover event itself. We show that as acquirer shareholder power increase, bondholder gains during takeover increase. There is little evidence to show that bondholders are afraid of acquirers with strong shareholder power or that acquirer shareholders try to limit the target bondholders' coinsurance benefit. Our results are robust to various proxies for shareholder power, controls for target shareholder power and controls for various firm and deal characteristics that have been shown to affect bondholder wealth during takeovers.

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## Target Bondholder Wealth and Shareholder Power during M&A

### 1 INTRODUCTION

Are bondholders affected by shareholder power? As documented by Lehn and Poulsen (1991), U.S. courts have generally maintained that the bondholder-stockholder conflicts be resolved explicitly in the indentures. The board of directors' primary fiduciary duty is to shareholders and bondholders' rights in the firm is limited to what is being explicitly delineated in the bond indenture. Increasingly, research has shown that bondholders are not completely protected by the bond indenture and that shareholder power may be harmful to bondholders (Bhojraj and Sengupta, 2003; Klock, Mansi, Maxwell, 2004; Cremers, Nair and Wei, 2004).<sup>1</sup> These papers often make use of a regression approach where bond yield is regressed against proxies for shareholder power. In this paper, we take a different approach and examine the impact of acquirer shareholder power on target bondholder wealth during a takeover event.

A takeover event provides for an ideal experiment to study the valuation effects of shareholder power on bondholders. First, wealth effects are immediately observable in the announcement period bond returns. Second, during a takeover, claims are reshuffled and target bondholders' claims on the underlying assets may be undermined or strengthened when they get absorbed into the acquirer's portfolio of debt (Lewellen, 1971; Ghosh and Jain, 2000; Billet, King and Mauer, 2004). If shareholders expropriate from bondholders, the effects should be made more pronounced during these reshuffling of claims. Finally, not only do bondholders' claims on assets change from that of the target's assets to the combined assets of the target and acquirer, bondholders also move from the target's corporate governance structure to that of the acquirer's. If shareholder power is important to bondholders, this change in corporate governance structure should also impact bondholder wealth.

Based on prior literature, we posit three hypothesis, not necessarily mutually exclusive. All three hypotheses deal with the implications of acquirer shareholder power on target bondholder wealth during a

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<sup>1</sup> Cremers, Nair and Wei (2004) find that event risk covenants, which became popular in the 1990s, can help protect bondholders against shareholder expropriation during takeovers.

takeover event. Our null hypothesis is that shareholder power does not affect bondholders and that bond excess returns during the takeover are not affected by shareholder power.

The first hypothesis is the *Shareholder Expropriation Hypothesis*. Shareholder expropriation of bondholders can occur during takeovers. Acquirer shareholders can try to expropriate wealth from target bondholders by increasing the leverage of the merged firm or by financing the deal with debt (Ghosh and Jain, 2000). Indeed, Cremers, Nair and Wei (2004) and Klock, Mansi and Maxwell (2004) find that bond yields increase with the takeover vulnerability of the firm. In particular, Cremers, Nair and Wei document that the presence of a blockholder institution is associated with lower yields if the firm is protected from takeovers, but when the firm is vulnerable to takeovers, the presence of a blockholder leads to higher yield. Blockholder presence facilitates the sale of the firm and thus firms with both takeover vulnerability and a blockholder is more likely to be sold.

If acquirer shareholders expropriate from bondholders during takeovers, we would expect this effect to be stronger when shareholders have more power to negotiate successfully to make management do their bidding. Thus under the *Shareholder Expropriation Hypothesis*, *target announcement period excess bond returns is negatively related to acquirer shareholder power*.

The second hypothesis is the *Managerial Monitoring Hypothesis*. Good corporate governance can increase firm value and therefore increase the value of the underlying assets that bondholders can lay claim to (Bhojraj and Sengupta, 2003; Ashbaugh, Collins and LaFond, 2004). Bhojraj and Sengupta document that higher institutional ownership and more independent directors are associated with better bond ratings and lower yields. However, they also find that highly concentrated institutional ownership increases bond yields, suggesting that corporate bonds benefit from increased monitoring from institutions and outside directors, only to the extent that the institutions do not yield too much power that can lead to expropriation of bondholders.

Increased shareholder power likely monitors acquirer managers to make better takeover deals that increase acquirer firm value (Masulis, Wang and Xie, 2005). In addition, increased shareholder power leads to better monitoring of managers in the future. This better monitoring increases firm value and

likely benefit bondholders. Thus, the *Managerial Monitoring Hypothesis suggests a positive relationship between acquirer shareholder power and target announcement period excess bond returns.*

The third hypothesis is the *Mutual Interest Hypothesis*. Under some circumstances, managers and bondholders have complementary interests that may be detrimental to the wealth of equity holders. Risk-averse managers may sometimes invest in risk-reducing activities to protect their firm-specific human capital (Amihud and Lev, 1981; Smith and Stulz, 1985) or their perquisite consumption (Williams, 1987). Bagnani, et. al. (1994) find that bond yields increase with managerial ownership at low levels of ownership and decrease weakly with managerial ownership at high levels of ownership. At low levels of ownership, an increase in managerial ownership increases management incentives to increase shareholders wealth at the expense of bondholders wealth. However, at high levels of ownership, management becomes overly risk averse as their wealth becomes under-diversified. This under-diversification leads managers to engage in less risky projects to reduce the uncertainty of their firm-specific wealth and bondholders gain by coincident. *Thus the Mutual Interest Hypothesis predicts a nonlinear relationship between acquirer managerial ownership and target announcement period excess bond returns, with returns decreasing with managerial ownership at low levels of ownership and increasing with ownership at high levels of ownership.*

Our proxies for shareholder power have been widely used in the literature. Our first proxy is managerial ownership (Jensen and Meckling, 1976). Increased managerial ownership increases shareholder power since managers' interests are more likely to be aligned with that of shareholders'. Our second proxy is total institutional holdings (e.g. Jarrell and Poulsen, 1987). Institutional investors are considered more sophisticated investors and have better ability to monitor the managers. Our third proxy takes into account the concentration of institutional ownership by measuring only the holdings held by the top 5 institutional owners. The more concentrated the institutional holdings, the more power shareholder has when trying to negotiate with managers. Our final proxy is a dummy variable indicating the presence of a blockholder institution (Shleifer and Vishny, 1986). Large blockholders are less likely to suffer from free-rider problems and more likely to monitor managers.

We find that, consistent with prior literature, target bondholders experience significantly positive excess returns during the merger announcement period. This is driven by the speculative grade bonds. We also find some evidence that bond ratings for speculative grade bonds improve while bond ratings for the investment grade bonds worsen after the merger. This result on bond ratings has not been documented before. Importantly, we find that acquirer shareholder power benefits target bondholders during the takeover event. This is consistent with the Managerial Monitoring Hypothesis, where increased shareholder power leads to better monitoring of managers and therefore higher firm value. In particular, even after controlling for the coinsurance potential and various deal characteristics, we find that a 1% increase in ownership held in the hands of the top 5 institutional owners leads to a 0.073% increase in excess bond returns during the announcement period. The probability of a target bond ratings upgrade after the deal also increases with acquirer shareholder power. We do not find any evidence that acquirer shareholder power leads to bondholder expropriation or that target bondholders are afraid of moving to a corporate governance structure with high shareholder power. There is also little evidence that acquirer shareholders try to limit the coinsurance benefit of target bondholders or that the acquirer finance the transaction through debt issuances to expropriate wealth from the target bondholders.

The structure of the paper will proceed as follows. Section 2 describes the data and methodology used in the paper. Section 3 presents the results and Section 4 concludes.

## **2 DATA AND METHODOLOGY**

### *2.1 Sample*

A sample of completed and withdrawn takeover deals with announcement dates during the period from 1979 to 1997 was collected from Securities Data Corporation's (SDC) Mergers and Acquisitions Database. If multiple announcements for the same deal were being made during the same calendar year, only the first announcement is included in the analysis. We exclude leveraged buyouts and simple acquisitions of assets, and require that the target and its acquirer have non-missing announcement date stock returns on CRSP and valid asset and leverage data on Compustat in the fiscal year end immediately

prior to the merger announcement. These requirements give us an initial sample of 2300 merger deals. We then match these acquirers and targets to the firms in the Lehman Brothers Bond Database (LBBD). LBBD contains all bonds in the Lehman Brothers corporate and government bond indices and covers the period from January 1973 to March 1998. The database reports a time series of month-end bid quotes from Lehman Brothers' dealers and bond ratings from Moody's and Standard and Poor's, together with cross-sectional bond details.

For a target to be included in the sample, we require that the target have bonds listed in the LBBD with valid Month -3 market value, where Month -3 is counted with respect to the month of the merger announcement. We further require that target satisfies either of the following conditions: 1) The target have valid bond returns in Months -1 and 0, that are based on non-matrix prices in Months -2, -1 and 0, where Month 0 is the month of the announcement date (referred to as the "bond return" sample); or 2) The target have at least one rated bond existing in both Month -3 and Month +3, where Month -3 is with respect to the announcement date of the deal and Month +3 is with respect to the effective date or withdrawn date of the deal (referred to as the "bond rating" sample).<sup>2,3</sup> The first requirement leaves us with 910 bonds belonging to 298 targets and the second requirement leaves us with 1226 bonds belonging to 371 targets.

We further require the target and acquirer to have available proxy statements just prior to the merger announcement for collection of managerial ownership and board structure data. We supplement our corporate governance data from Compact D/SEC discs. We also require that the target and acquirer have institutional holdings data from SEC Form 13F quarterly filings, as provided by Thomson Financial, in the quarter just prior to the quarter in which the merger announcement falls in. Finally, we also require that the acquirer and target to have at least 12 months of monthly stock returns from Month -2 to Month -25, inclusive, to allow us to calculate the standard deviation of unlevered stock returns. Our final sample

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<sup>2</sup> For those deals missing both the effective date and withdrawn date, the announcement date is used instead.

<sup>3</sup> As the ratings for speculative bonds prior to 1995 are inaccurately recorded in the LBBD, we manually checked these ratings with the Moody's Annual Bond Records and Moody's Bond Records. Those bonds with ratings that cannot be verified are discarded.

consists of 281 targets with 956 bonds. Of these 281 targets, 215 targets with 657 bonds belong to the bond return sample, and 266 targets with 891 bonds belong to the bond rating sample.<sup>4</sup>

The majority of the targets in the sample have multiple bond issues. We follow the approach of Billet, King and Mauer (2004) and combine all of a firm's bond characteristics into a single observation, where the weights are based on the Month -3 market value of the bond. Thus, a target's announcement period excess return, bond rating changes and other bond characteristics are weighted averages of all the target's bonds.

## 2.2 *Proxy for Shareholder Power*

To examine the association between announcement period excess bond returns and shareholder power, we use four widely used measures. Our first measure is management ownership. As management ownership increases, managerial incentives are more likely to be aligned with that of shareholders (Jensen and Meckling, 1976). But this relationship is unlikely to be monotonically positive and managers may act like bondholders at high level of ownership. First, as noted by Amihud and Lev (1981) and May (1995), managers are risk-averse and increased ownership in the firm may increase managers' sensitivity to firm stock price movement and this may cause them to decrease firm risk to reduce the uncertainty of their firm-specific wealth. Secondly, as ownership increases, the firm is less likely to be disciplined from the takeover market (Song and Walkling, 1993) and thus perquisite consumption may also increase. To the extent that managers are protective over their perquisite consumption, they may try to reduce firm risk to stabilize their perquisite consumption flow (Williams, 1987; John, Litov and Yeung, 2005). Consistent with these arguments, Bagnani, Milonas, Saunders and Travlos (1994) find that at low levels of management ownership, bond yields increase as ownership increases. However, at high levels of ownership, the relationship turns slightly negative, though this latter result is weak.

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<sup>4</sup> Our sample of targets with available announcement period bond returns is slightly smaller than that of Billet, King and Mauer (2004) primarily because we require the target and acquirer to have asset and leverage data in Compustat.

Research has explored the role of institutions in monitoring managers. Higher institutional monitoring is generally associated with increased shareholder power. Though the role of institutions in monitoring managers have been under debate, recent literature such as Hartzell and Starks (2003), find that institutional monitoring is associated with lower CEO compensation and higher pay-for-performance sensitivity. We measure the influence of institutional investors with three variables. The first variable is total institutional holdings. Bhojraj and Sengupta (2003) find that firms with higher institutional holdings enjoy lower bond yields. They argue that their results are consistent with institutions reducing default risk by mitigating agency costs and monitoring managerial performance, and by reducing information asymmetry between the firm and lenders. However, others have also argued that institutions are unlikely to monitor managers due to free-riding among institutions, making it difficult for them to take collective actions to bargain with managers to do their bidding (Black, 1990; Karpoff, Malatesta, and Walkling, 1996).

Our second and third measures of institutional ownership attempts to measure the concentration of institutional holdings. As discussed above, institutional monitoring may not occur if it is difficult for institutions to take collective actions, thus more concentrated ownership may reduce the free-rider problem and lead to better monitoring of managers. Our second measure is the percentage of company stock held by the five largest institutional owners of the firm. Our third measure is a dummy variable which takes the value of one if the acquirer has a blockholder institution. A blockholder institution is one which holds at least 5% of the company's stock. Shleifer and Vishny (1986) argue that blockholders are more likely to monitor managers due to their increased stake in the firm. Although concentrated institutional ownership can lead to better monitoring of managers, concentrated ownership can also allow the owners to exercise undue influence on the managers to secure benefits for themselves, but at the detriment of the bondholders. Indeed, Bhojraj and Sengupta (2003) find that concentrated institutional ownership has an adverse effect on bond yields and bond ratings.



### 2.3 *Sample Characteristics*

Table 1 tabulates the 281 deals in our sample against the merger announcement year. The increase in merger activity from 1985 to 1989 and also in the second half of the 1990s is similar to that found in Billet, King and Mauer (2004) and also reflects the patterns in aggregate merger activity (Andrade, Mitchell and Stafford, 2001). Table 2 presents various characteristics relating to the deals, the acquirers, and the targets that are in our sample. The deal characteristics are from the SDC and are given in Panel A. Over 30% of the deals are 100% financed with cash while about 22% of the deals are financed by stock. Most of the merger announcements in our sample are completed deals, with over half of the deals involving 100% of the target being acquired. The transaction values for our sample are much higher than past literature (e.g. Moeller, Schlingemann and Stulz, 2004) primarily because firms in the LBBD are bigger firms with public debt outstanding.

Panel B of Table 2 provides descriptive statistics of the firms in the sample. All accounting ratios are from Compustat and are measured as of the fiscal year end immediately prior to the merger announcement. ROE is given by the ratio of net income to book equity while ROA is the ratio of net income to total assets. Size is the market value of the firm, and is equal to the sum of market capitalization and total assets less book equity. Size and book assets are expressed in 1998 dollars using the Consumer Price Index. Growth is given by the ratio of size to book assets. An unlevered stock return is computed as one minus the firm's market leverage ratio at the end of the corresponding fiscal year end. The firm's market leverage ratio is defined as the book value of total debt to the sum of the book value of total debt and market value of equity. The market value of equity in the leverage calculation is from CRSP and is the value as of the corresponding month as the stock return. We compute the standard deviation of unlevered stock returns using monthly stock returns from Month -2 to Month -25. We require that the firm has at least 12 months of non-missing returns during this window. Targets are, on average, smaller, less profitable, and more leveraged than the acquirer. In addition, targets have lower growth and there is little difference in the riskiness of targets and acquirers, as measured by the standard deviation of unlevered stock returns.

Panel C of Table 2 presents descriptive statistics of the firms' bonds. The bond details are from LBBB. When a firm has multiple bonds, the bond maturity and ratings are market-value weighted averages where the market value of the bond is taken as of Month -3. Bond maturity is the number of years to maturity, measured with respect to the announcement date. Bonds rated AAA+ are given a no. of 23 and bonds rated D are given a no. of 1. We make use of Moody's ratings. Target bonds have shorter maturity, with an average maturity of 11 years, compared to 12 years for the acquirer. As expected, target bonds have worse ratings. The median target is rated Baa2, while the median acquirer is rated A2. Finally, targets have less bonds as compared to the acquirer. Our descriptive statistics on the firms' bonds are similar to that in Billet, King and Mauer (2004).

Panels D and E provide the descriptive statistics of the firms' shareholder power and other corporate governance structures. Although the target have lower ownership than the acquirer, the difference is not significant. Consistent with targets being smaller firms, targets tend to have slightly lower total institutional holdings (Gompers and Metrick, 2001). Interestingly, target's institutional holdings are more concentrated as shown by the holdings held by the top five institutions and by the presence of a blockholder institution. Finally, target boards are smaller and the chairman of the board is less likely to be the CEO as well.

### **3 RESULTS**

#### *3.1 Excess Bond Returns and Rating Changes*

We compute monthly bond excess returns and bond rating changes for each target in our sample. Following Warga and Welch (1993) and Billet, King and Mauer (2004), we calculate monthly bond excess returns as the difference between a bond's monthly total returns (change in price plus accrued interest) and the monthly total return on an index of bonds with similar rating and remaining maturity. These indices are constructed by Lehman Brothers and available in the LBBB. The announcement period bond return is the sum of Month 0 and Month -1 excess returns. Bond rating change is the difference in a bond's rating between Month -3 and Month + 3, where Month -3 is counted with respect to the

announcement date and Month +3 is counted with respect to the merger effective date or withdrawn date. If target bonds gain from the coinsurance effect, this effect will be reflected in the ratings improvement that comes from the target bondholders' claim on less risky assets. In addition, the use of Month +3, counting from the effective date assures us that the bonds are not immediately called after the merger and that the positive excess returns we find is not mainly due to bonds gaining from being called at a higher price than its market price at the time of the announcement. As mentioned previously, for those firms with multiple bond issues, a weighted average bond excess return and weighted average bond rating change is calculated for each target in the sample, where the weights are based on the market value of the bond in Month -3.<sup>5</sup>

Table 3 reports target announcement period excess bond returns and rating changes. Similar to Billet, King and Mauer (2004), we find that target bonds on average earn an excess return of 0.484%, significant at the 5% level. Although the median target also earn a positive excess bond return of 0.129%, it is not significant. The average positive gain to target bonds is consistent with the coinsurance effect. Since the coinsurance effect results from a reduction in risk due to merging of imperfectly correlated cash flows, Kim and McConnell (1977) and Dennis and McConnell (1986) argue that risky bonds are most likely to gain from the merger. Consistent with this argument, we find that the speculative grade bonds are driving the positive gain that is observed for the whole sample. Speculative grade bonds gain an average of 2.219% excess return, while the investment grade bonds lose an excess return of about 0.453% during the announcement of the deal. Both mean excess returns and their medians are significant and the respective differences are also significant at the 1% level.

Results based on the bond rating changes are generally weaker. All the median changes are zero, making it difficult to draw inference from the medians. Thus, when examining bond rating changes, only the means will be discussed. On average, bond ratings decrease, though this decrease is not significantly different from zero. Examining the investment grade bonds and speculative grade bonds separately, we

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<sup>5</sup> One target has a value-weighted announcement period bond excess return of 85.77%. This observation is deleted due to outlier problem concerns.

find that, similar to the bond returns analysis, the investment grade bonds worsen in ratings, while the speculative grade bonds improve in ratings. The difference in ratings change between the speculative grade bonds and investment grade bonds is significant at the 10% level. Including the withdrawn deals are likely to weaken our ratings change results. The coinsurance effect for the target bondholders come about only if the target bondholders move from risky assets to less risky assets. In untabulated results where the withdrawn deals are discarded, the speculative grade bonds increase their ratings by 0.6 and this is significant at the 1% level, while the ratings change for investment grade bonds are not significantly different from zero. The difference in ratings change for the two groups of bonds among the completed deals is significantly different at the 5% level.

### 3.2 *Univariate Analysis of Excess Bond Returns and Rating Changes*

Table 4 divides the firms into subsamples based on the acquirer shareholder power and corporate governance structure. For acquirer management ownership, total institutional holdings, sum of top 5 institutional holdings, board size and proportion of outside directors, we divide the targets into 3 groups based on the value of the variables. Only the top and bottom terciles are contrasted. We find that target bonds tend to gain when acquirer management ownership is higher, though the results are weak. Target announcement period excess bond returns is significantly positive at 0.935% for the subsample of targets where the acquirers have high management ownership, while target bonds do not seem to gain or lose when acquirer management has low ownership. The difference in returns between the two groups of firms is not significantly different. In addition, results based on rating changes show that target bond ratings worsen in the subsample of targets where the acquirer has high management ownership. The different conclusions based on returns and rating changes make the inferences about the effect of managerial ownership on bondholder wealth difficult to make.

Results based on the institutional holdings variables show that higher institutional holdings and more concentrated institutional holdings benefit target bondholders, and the results are especially strong for the ratings changes. Higher total institutional holdings and higher top 5 institutional holdings lead to

significantly positive excess bond returns during the announcement period, while the group of bonds associated with low institutional holdings do not experience a significant positive returns. Unfortunately, the differences between the subgroups are not significantly different from zero. The bond rating changes show that bonds that move to an environment with higher institutional monitoring benefit. Target bonds experience a decrease in ratings when they move to an environment with little or no monitoring, while target bonds which move to an environment with institutional monitoring do not experience a decrease in ratings. The difference in rating changes between the two groups of bonds is significant. Finally, the presence of a blockholder institution in the acquirer's corporate governance structure benefits the target bondholders. Bonds which moved to an environment with an institutional blockholder experience a significantly positive excess return of 0.99%, while those bonds which moved to an environment without an institutional blockholder have a slightly negative excess returns. The difference between the two groups of bonds is significant at the 5% level. Bond rating changes also reflect similar patterns. The univariate analysis is consistent with the *Managerial Monitoring Hypothesis* that bondholders gain when shareholders monitor managers to make better takeover deals and also prevent managerial rent-seeking in the future. There is little evidence of shareholder expropriation and we find that bondholders are not afraid of moving to an environment with high shareholder power. In fact, they benefit from shareholder power as evidenced by the positive excess bond returns in the subgroup with high shareholder power and the decrease in ratings for those bonds which moved to firms with low shareholder power.

We also examine how acquirer board structure affects bondholder target gains during the merger announcement. As can be seen, the acquirer board structure does not appear to influence target bondholder reactions to the merger announcement. However, there is evidence that a more independent acquirer board benefits bondholders. Target bonds experience a positive and significant excess return of 0.53% when the acquirer has a more independent board, while the bonds experience a significant loss of 0.63% when the acquirer board is not as independent. The difference between the two groups of bonds is significant at the 1% level.

It is interesting that most of the results above are stronger for the ratings changes. This is consistent with the fact that we are trying to measure the change in the corporate governance environment for the target bonds and that the ratings are most likely to reflect this shift in environment, while bond announcement period returns may not fully take into account the shift in environment. In addition, the results on bond ratings changes are similar when we examine only the subset of completed deals. In most cases, we find a stronger result when we examine this subset of deals alone.

### *3.3 Multivariate Analysis of Excess Bond Returns*

Table 5 presents the regressions of excess bond returns against our proxies for acquirer shareholder power. Following Billet, King and Mauer (2004), we include proxies for the coinsurance effect. We include the difference in JRT between the acquirer and target, where JRT is the worst rated bond of the firm. We also include dummy variables which equal one if the target book leverage, as measured by the ratio of total debt to book assets, is greater than the acquirer book leverage, if the standard deviation of target unlevered stock returns is greater than the acquirer standard deviation of unlevered stock returns, and if the target bond maturity is shorter than the acquirer maturity. The remaining control variables include the ratio of the acquirer size to target size, and dummy variables for whether the deal is for cash, classified as hostile, occurred in the 1990s, non-diversifying, a tender offer, and completed. The number of observations decreases to 147 deals as we require that the acquirer also have bonds listed in the LBBD.

Consistent with the coinsurance effect, we find that the difference in JRT is significantly positive in all the regressions. Target bonds gain when the acquirer is rated better than the target. Similar to Billet, King and Mauer (2004), the other proxies for coinsurance effect has little explanatory power. In addition, we also find that target bonds gain when the acquirer size is bigger than the target and target bonds lose when cash is being used in the deal.

If acquirer shareholders expropriate from bondholders during takeovers, we expect that as acquirer shareholder power increases, shareholders will have more ability to negotiate with managers to

take actions that benefit the shareholders, and these actions may include expropriating wealth away from the target bondholders. Thus, the *Shareholder Expropriation Hypothesis* predicts a negative relationship between acquirer shareholder power and target bondholder wealth. However, if acquirer shareholder power lead managers to make better takeover deals or help mitigate agency costs, we expect higher shareholder power to increase target bondholder wealth. In Table 5, we find evidence consistent with the *Managerial Monitoring Hypothesis* where increased shareholder power benefits bondholders and little evidence that shareholders expropriate from bondholders.

Models 1 to 3 examine the effects of acquirer managerial ownership on target bondholder wealth, Models 4 to 7 examine the effects of acquirer institutional monitoring and Models 8 and 9 include both managerial ownership and institutional monitoring. As managers' interests become more aligned with shareholders' interest, there is some weak evidence that bondholders benefit. However, managerial ownership is only significant when the square of managerial ownership is included. There is little evidence of the *Mutual Monitoring Hypothesis*, we do not find any evidence of a non-linear relationship between managerial ownership and target announcement period excess bond returns.

Models 4 to 7 show that higher institutional ownership and more concentrated ownership increase target bondholder wealth during the merger announcement period. We find that increased total institutional ownership increases bondholder wealth, though total institutional ownership becomes insignificant when we include the sum of top 5 institutional holdings as well in Model 6. This is not surprising since the correlation between total institutional holdings and top 5 holdings is 0.65. Top 5 institutional holdings may be a better proxy for shareholder power as it measures whether shareholders can take collective actions together to bargain with managers, while total institutional holdings include many institutions with very small holdings. These institutions with small holdings may suffer from free-rider problems. A 1% increase in ownership held in the hands of the top 5 institutional owners leads to a 0.073% increase in excess bond returns during the merger announcement. The adjusted R-squares also increase from 21.6% in the base model to about 27% in Model 5 when we include the top 5 institutional holdings. In Model 7, we also find that the presence of a blockholder institution benefit target

bondholders, though the coefficient on this variable becomes insignificant when we also include total institutional ownership and managerial ownership as additional independent variables in Model 9.

Since it is the shift in corporate governance environment that determines target bondholder wealth gains during the merger announcement, in untabulated results, we also control for the target shareholder power in Models 8 and 9. Putting the target shareholder power variables together with acquirer shareholder power is similar to examining the change in corporate governance environment. Our inferences remain similar and the economic significance of top 5 institutional holdings and managerial ownership also stays almost the same. In another set of robustness check, we also control for the acquirer board structure. In particular, we re-run Models 8 and 9 including acquirer board size, a dummy variable indicating whether the acquirer CEO is also chairman of the board, and also the percentage of outside directors. Managerial ownership is no longer significant, though top 5 institutional holdings is still significant at the 1% level with a coefficient of 0.057.

### *3.4 Multivariate Analysis of Bond Ratings Changes*

Announcement period target bond excess returns could be measuring the gains that the target will make when the target bonds are being called back at a price higher than what the bonds were being traded at before the announcement. To further show that target bonds do benefit from moving to an environment with higher shareholder power, we examine target bond rating changes. As discussed earlier, target bond rating change is the change in rating from Month -3 to Month +3, where Month -3 is measured with respect to the merger announcement date and Month +3 is measured with respect to the merger effective date. When a target has multiple bonds, a weighted average ratings change is calculated over all the target bonds, where the weights are based on the market value of the bonds in Month -3. In this analysis, we only examine completed deals and targets where there is a ratings upgrade or downgrade. Targets where there is no ratings change are discarded. The sample size decrease accordingly to 64 targets, with 41 targets experiencing a ratings upgrade.



Table 6 presents probit analysis of the probability of a ratings upgrade for the target bondholders.<sup>6</sup> Marginal effects are provided. Similar to the returns results, we find that the probability of a ratings upgrade increases with the difference between acquirer and target JRT. This effect is consistent with the coinsurance effect where target bonds gain when they move to a less risky environment. There is some evidence that higher management holdings lead to a ratings decrease, but the results are very weak. More importantly, we find that higher acquirer institutional holdings and more concentrated institutional holdings increases the probability of a ratings upgrade. Results in Table 6 are consistent with the *Managerial Monitoring Hypothesis*. If the *Shareholder Expropriation Hypothesis* is true, we would expect that the target ratings decrease upon the takeover.

### 3.5 *Do Shareholders Limit the Coinsurance Effect?*

So far, we do not find that acquirer shareholder power leads to target bondholder expropriation. In this section, we provide further evidence that shareholders do not try to expropriate from bondholders. It is possible that acquirer shareholders try to limit bondholder coinsurance benefit, and we are not able to detect this form of expropriation with the analysis so far. In Table 7, we interact our shareholder power measures with a dummy variable to indicate whether coinsurance potential is available. This dummy variable equals to one if the acquirer's JRT is better than the target's JRT. We find that the sum of top 5 institutional holdings continue to have explanatory power. Although the coefficient on the interaction between top 5 institutional holdings and coinsurance potential is negative, it is not significant and the economic significance is very low at -0.002. Thus, we do not find any evidence that increased shareholder power is associated with lower coinsurance benefit.

As Ghosh and Jain (2000) point out, one way to expropriate bondholders is to issue debt to finance the deal. In Table 8, we interact our shareholder power proxies with a dummy variable indicating whether debt securities are used as a source of financing. We also include a dummy variable to indicate

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<sup>6</sup> Due to the small number of observations, we do not include the controls for deal characteristics. Controlling for deal characteristics, Models 8 and 9 cannot be estimated. The results in Models 1 to 7 remain almost the same, with management ownership and management ownership square in Model 3 being significant.

whether debt securities are used in the transaction. There are seven deals among the 147 deals that SDC indicates the transaction is being financed in some portion by debt securities. In Models 1 and 2, we find that although management ownership increases bondholder wealth, increased management ownership leads to a reduction in bondholder wealth when debt financing is being used. Thus there is some evidence that management makes use of debt financing to expropriate bondholder wealth. There is little evidence that institutional shareholders expropriate from bondholders by making management issue debt to finance the deal. The interaction term between total institutional holdings, top 5 institutional holdings and dummy variable for blockholder institution is either significantly positive or insignificantly positive.

#### **4 CONCLUSIONS**

This paper examines target bondholder wealth changes during a takeover event and relates these wealth changes to acquirer shareholder power. Target bondholders move from the target corporate governance structure to the acquirer corporate governance structure. If shareholder power affects bondholder wealth as prior literature indicates, we should observe a relationship between target bondholder wealth changes during the announcement period and acquirer shareholder power. We find that target bondholder benefits from moving to an environment with high shareholder power. In particular, an increase in acquirer's shares held in the hands of the top 5 institutional owners is associated with an increase in target announcement period excess bond returns. Increased acquirer shareholder power also leads to an improvement in target bond ratings. There is little evidence that acquirer shareholder power try to expropriate from target bondholders.

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### **Table 1. Frequency of Deals by Year of Announcement**

Deals include all completed or withdrawn mergers and acquisitions announced during 1979 to 1997 and listed in the Securities Data Corporation's (SDC) Mergers and Acquisitions Database. The target and acquirer must exist on CRSP with non-missing announcement date stock returns, have valid accounting data on Compustat, have valid corporate governance data from proxy statements in the fiscal year end just prior to the announcement date, and have valid institutional ownership data from Thomson Financial in the quarter prior to the quarter in which the merger announcement falls in. The target must also have bonds listed on the Lehman Brothers Bond Database (LBBD) that satisfies either of the following conditions: 1) The target have valid bond returns in Month -1, and Month 0, that are based on non-matrix prices, where Month 0 is the month of the announcement date; or 2) The target have at least one rated bond existing in both Month -3 and Month +3, where Month -3 is with respect to the announcement date of the deal and Month +3 is with respect to the effective date of the deal.

<b>Year</b>	<b>Frequency</b>	<b>Percent</b>
1980	1	0.36
1981	11	3.91
1982	6	2.14
1983	12	4.27
1984	13	4.63
1985	30	10.68
1986	16	5.69
1987	14	4.98
1988	17	6.05
1989	22	7.83
1990	12	4.27
1991	18	6.41
1992	11	3.91
1993	9	3.2
1994	19	6.76
1995	27	9.61
1996	22	7.83
1997	21	7.47
Total	281	100

**Table 2. Descriptive Statistics**

Deal characteristics are from the SDC, firm characteristics are from Compustat and CRSP and bond characteristics are from the LBBB. Institutional holdings are from SEC Form 13F quarterly filings, as provided by Thomson Financial, while management holdings and board characteristics are collected from proxy statements and Compact Disclosures Discs. Size is the sum of market capitalization and total assets less book equity. Growth is given by the ratio of size to total asset. Standard deviation of unlevered stock returns is calculated using at least 12 months of returns from Month -2 to Month -25. Unlevered Stock Returns is the monthly returns multiplied by one minus the ratio of total debt to sum of total debt and market value of equity for the corresponding month end. When a firm has multiple bonds, the bond maturity and ratings are market-value weighted average where the market value of the bond is taken as of Month -3. Bond maturity is the no. of years to maturity, measured with respect to the announcement date. Bonds rated AAA+ are given a no. of 23 and bonds rated D are given a no. of 1. Paired T-Tests and the Wilcoxon Signed Rank Sum Test are used to test for differences between the acquirers' and targets' mean and median values, respectively. \*\*\*, \*\*, \* significant at 1%, 5% and 10% levels.

<b>Panel A: Deal Characteristics</b>			
<i>VARIABLE</i>	<i>N</i>	<i>%</i>	
Proportion 100% Cash Financed	281	32.74	
Proportion 100% Stock Financed	281	22.06	
Proportion with Tender Offer	281	16.73	
Proportion with Hostile Bid	281	10.32	
Proportion of Completed Deals	281	69.75	
<i>VARIABLE</i>	<i>N</i>	<i>MEAN</i>	<i>MEDIAN</i>
Days btw ann. date and eff. date	196	145.15	120.50
Transaction Value (in 1998 \$mil)	253	3040.84	1119.72
% of Target Acquired	186	68.92	100.00

  

<b>Panel B: Firm Characteristics</b>	<b>Acquirer</b>			<b>Target</b>		
<i>VARIABLE</i>	<i>N</i>	<i>MEAN</i>	<i>MEDIAN</i>	<i>N</i>	<i>MEAN</i>	<i>MEDIAN</i>
Return on Equity	281	0.126	0.147	281	0.035 **	0.112 ***
Return on Assets	281	0.035	0.032	281	0.018 ***	0.016 ***
Growth	281	1.304	1.116	281	1.198 ***	1.069 ***
Total Debt/Total Asset	281	0.283	0.253	281	0.325 ***	0.276 ***
Size (in 1998 \$mil)	281	29563	11409	281	14689 ***	5486 ***
Book Total Asset (in 1998 \$mil)	281	25981	8672	281	13747 ***	4479 ***
Std Dev of Unlevered Stock Returns	281	0.059	0.057	281	0.047	0.044

  

<b>Panel C: Bond Characteristics</b>	<i>N</i>	<i>MEAN</i>	<i>MEDIAN</i>	<i>N</i>	<i>MEAN</i>	<i>MEDIAN</i>
Bond Maturity (years)	193	12.04	10.63	281	10.55 ***	9.18 ***
Month -3 Bond Rating	189	16.28	17.00	281	13.74 ***	14.00 ***
Average No. of Bonds	193	5.51	3.00	281	3.64 ***	2.00 ***

  

<b>Panel D: Ownership</b>	<i>N</i>	<i>MEAN</i>	<i>MEDIAN</i>	<i>N</i>	<i>MEAN</i>	<i>MEDIAN</i>
Management Hldg (%)	281	11.06	2.49	281	10.23	2.99
Total Institutional Hldg (%)	281	43.88	45.96	281	41.79	41.13 **
Sum of Top 5 Institutional Hldg (%)	281	15.89	14.52	281	18.65 ***	16.65 ***
Dummy for Blockholder Institution	281	0.51	1.00	281	0.59 *	1.00 *

  

<b>Panel E: Board Structure</b>	<i>N</i>	<i>MEAN</i>	<i>MEDIAN</i>	<i>N</i>	<i>MEAN</i>	<i>MEDIAN</i>
Board Size	281	13.46	13.00	281	12.64 ***	12.00 ***
% of Outside Director	281	75.39	78.26	281	75.50	78.57
Dummy for duality of CEO-Chairman	281	0.83	1.00	281	0.74 **	1.00 ***

### Table 3. Target Bond Returns and Rating Changes

The following table gives the univariate tests of target bond excess returns and target bond rating changes. Excess returns are the sum of the excess returns for the 2 months period, Months -1 and 0, where Month 0 is the month of the announcement date. Excess bond returns are calculated as the bond's total return minus the return on a similar risk and maturity bond index. Target bond rating changes is measured as the difference in the target's bond ratings on Month -3 and Month +3, where Month -3 is measured with respect to the month of the announcement date and Month + 3 is measured with respect to the month of the effective date. Bonds rated AAA+ is given a no. of 23 and those rated D is given a no. of 1, bonds that are not rated are not included in the bond rating changes tests. When a target has multiple bonds, a firm-level average of bond returns and bond rating change is calculated using the market values of the bonds in Month -3. Investment grade bonds are defined as those with Moody's ratings equal to or better than Baa3. *JRT* is the rating on the worst rated bond that the firm has. The significance level of the means and medians is tested using T-test and Wilcoxon Signed Rank Test respectively. The significance level between group means is tested using T-test assuming unequal variances across groups when a test of equal variances is rejected at the 10% level. The significance level of the medians is tested using the Wilcoxon-Mann-Whitney test. \*\*\*, \*\*, \* significant at the 1%, 5% and 10% level.

	Bond Returns (%)			Bond Rating Changes		
	N	Mean	Median	N	Mean	Median
Full Sample	214	0.484 **	0.129	266	-0.067	0.000
<i>Sample is Grouped by Target JRT</i>						
Investment Grade	139	-0.453 **	-0.082 *	174	-0.220	0.000
Speculative Grade	75	2.219 ***	1.327 ***	92	0.222	0.000
Difference		-2.672 ***	-1.409 ***		-0.442 *	0.000 *

**Table 4. Target Bond Returns and Rating Changes - Acquirer Corporate Governance Structure**

The following table gives the univariate tests of target bond excess returns and rating changes across various subgroups. Excess returns are the sum of the excess returns for Months -1 and 0, where Month 0 is the month of the announcement date. Excess returns are calculated as the bond's total return minus the return on a similar risk and maturity bond index. Target rating changes is measured as the difference in the target's bond ratings on Month -3 and Month +3, where Month -3 is measured with respect to the month of the announcement date and Month + 3 is measured with respect to the month of the effective date. When a target has multiple bonds, a weighted average ratings change is calculated over all the target's bonds, where the weights are based on the market value of the bonds in Month -3. Management ownership holdings and board structure characteristics are from the proxy statement just prior to the announcement date. Institutional holdings are from Thomson Financial and from the quarter just prior to the quarter in which the announcement date falls in. For management holdings, total institutional holdings, top 5 institutional holdings, board size and percentage of outside directors, the firms are divided into 3 groups based on the values of each measure. Only the top and bottom terciles are contrasted. The significance level of the means and medians is tested using T-test and Wilcoxon Signed Rank Test respectively. The significance level between group means is tested using T-test assuming unequal variances across groups when a test of equal variances is rejected at the 10% level. The significance level of the medians is tested using the Wilcoxon-Mann-Whitney test. \*\*\*, \*\*, \* significant at the 1%, 5% and 10% level.

	Bond Returns (%)			Bond Rating Changes		
	N	Mean	Median	N	Mean	Median
<b>Acquirer Management and Institutional Holdings</b>						
<i>Management Ownership Holdings is:</i>						
Low	75	-0.008	0.056	89	-0.113	0.000
High	66	0.935 **	0.031	88	-0.476 **	0.000 **
Difference		-0.943 *	0.025		0.363	0.000 **
<i>Total Institutional Holdings is:</i>						
Low	67	0.186	-0.075	87	-0.459 ***	0.000 ***
High	76	0.775 **	0.253 **	88	0.245	0.000
Difference		-0.589	-0.328		-0.704 **	0.000 ***
<i>Sum of Top 5 Institutional Holdings is:</i>						
Low	71	0.284	-0.009	88	-0.409 **	0.000 ***
High	71	1.155 ***	0.309 ***	86	0.320 *	0.000 *
Difference		-0.871	-0.318 *		-0.729 ***	0.000 ***
<i>Presence of Blockholder Institution</i>						
No	105	-0.043	-0.082	133	-0.284 *	0.000 *
Yes	109	0.991 ***	0.281 ***	133	0.150	0.000
Difference		-1.034 **	-0.363 **		-0.435 *	0.000 **
<b>Acquirer Board Structure</b>						
<i>CEO is also Chairman of Board</i>						
No	33	0.718	0.014	43	0.045	0.000
Yes	181	0.441	0.136	223	-0.089	0.000
Difference		0.277	-0.121		0.134	0.000
<i>Board Size</i>						
Small	79	0.618	0.081	99	-0.281 *	0.000
Big	77	0.024	0.156	96	0.114	0.000
Difference		0.594	-0.075		-0.396	0.000 *
<i>% of Outside Directors is:</i>						
Low	63	0.601	0.018	83	-0.625 ***	0.000 ***
High	73	0.755 *	0.444 **	85	0.533 ***	0.000 ***
Difference		-0.154	-0.425		-1.158 ***	0.000 ***



**Table 5. Regressions of Target Bond Returns against Acquirer Shareholder Power**

The following table gives the regressions of target announcement period excess bond returns against measures of shareholder power. JRT Diff is the difference between acquirer JRT and target JRT where JRT is the firm's worst rated bond. Leverage Diff Dummy equals to one if target's total debt to book assets ratio is greater than that of the acquirer's. Ret. Std Dev Diff Dummy equals to one if the target's standard deviation of unlevered stock returns is greater than that of the acquirer's. Maturity Diff Dummy equals to one if the target's bonds have shorter maturity than that of the acquirer's. Robust T-Statistics are reported in *italics*. \*\*\*, \*\*, \* significant at the 1%, 5% and 10% level.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constant	-0.634 <i>0.88</i>	-0.718 <i>1.05</i>	-0.835 <i>1.26</i>	-1.632* <i>1.70</i>	-1.503** <i>1.98</i>	-1.477 <i>1.55</i>	-1.240 <i>1.58</i>	-1.890** <i>2.34</i>	-2.114** <i>2.48</i>
JRT Diff	0.253*** <i>3.81</i>	0.266*** <i>3.92</i>	0.260*** <i>3.89</i>	0.236*** <i>3.54</i>	0.260*** <i>3.97</i>	0.261*** <i>3.89</i>	0.250*** <i>3.72</i>	0.272*** <i>4.06</i>	0.257*** <i>3.81</i>
Leverage Diff Dummy	-0.108 <i>0.18</i>	-0.145 <i>0.23</i>	-0.312 <i>0.53</i>	-0.025 <i>0.04</i>	-0.071 <i>0.12</i>	-0.074 <i>0.13</i>	0.069 <i>0.11</i>	-0.250 <i>0.44</i>	-0.141 <i>0.23</i>
Ret. Std Dev Diff Dummy	-0.239 <i>0.43</i>	-0.195 <i>0.35</i>	-0.240 <i>0.44</i>	-0.465 <i>0.80</i>	-0.485 <i>0.90</i>	-0.480 <i>0.85</i>	-0.184 <i>0.33</i>	-0.477 <i>0.86</i>	-0.365 <i>0.62</i>
Maturity Diff Dummy	0.681 <i>1.56</i>	0.584 <i>1.24</i>	0.616 <i>1.33</i>	0.750* <i>1.74</i>	0.675 <i>1.62</i>	0.672 <i>1.60</i>	0.688 <i>1.62</i>	0.559 <i>1.27</i>	0.583 <i>1.31</i>
Management Hldg		0.012 <i>0.62</i>	0.089* <i>1.89</i>					0.082* <i>1.74</i>	0.083* <i>1.74</i>
Management Hldg Squared			-0.001 <i>1.65</i>					-0.001 <i>1.28</i>	-0.001 <i>1.23</i>
Total Inst. Hldg				0.025* <i>1.81</i>		-0.001 <i>0.06</i>		0.007 <i>0.43</i>	0.023 <i>1.59</i>
Top 5 Inst. Hldg					0.073*** <i>3.35</i>	0.074*** <i>2.64</i>		0.064*** <i>2.77</i>	
Dummy for Inst. Block							1.060** <i>2.38</i>		0.558 <i>1.11</i>
Non-Diversifying Deal	-0.465 <i>0.97</i>	-0.452 <i>0.94</i>	-0.371 <i>0.76</i>	-0.542 <i>1.18</i>	-0.575 <i>1.26</i>	-0.574 <i>1.26</i>	-0.543 <i>1.16</i>	-0.494 <i>1.06</i>	-0.487 <i>1.03</i>
Acquirer Size/ Target Size	0.018*** <i>7.47</i>	0.018*** <i>7.29</i>	0.019*** <i>7.46</i>	0.019*** <i>7.74</i>	0.019*** <i>8.14</i>	0.019*** <i>8.06</i>	0.019*** <i>7.68</i>	0.020*** <i>8.17</i>	0.020*** <i>7.90</i>
Tender Offer	0.479 <i>0.60</i>	0.553 <i>0.72</i>	0.631 <i>0.83</i>	0.324 <i>0.41</i>	0.475 <i>0.61</i>	0.481 <i>0.63</i>	0.695 <i>0.89</i>	0.619 <i>0.84</i>	0.655 <i>0.86</i>
Hostile	-0.147 <i>0.19</i>	-0.168 <i>0.22</i>	0.040 <i>0.05</i>	-0.197 <i>0.25</i>	-0.297 <i>0.40</i>	-0.298 <i>0.40</i>	-0.314 <i>0.42</i>	-0.159 <i>0.21</i>	-0.161 <i>0.21</i>
Cash	-1.331** <i>2.25</i>	-1.376** <i>2.31</i>	-1.517** <i>2.61</i>	-1.206** <i>2.01</i>	-1.255** <i>2.20</i>	-1.259** <i>2.14</i>	-1.139* <i>1.97</i>	-1.419** <i>2.49</i>	-1.312** <i>2.31</i>
1990s	0.260 <i>0.55</i>	0.316 <i>0.69</i>	0.343 <i>0.75</i>	-0.002 <i>0.00</i>	-0.062 <i>0.13</i>	-0.056 <i>0.12</i>	0.077 <i>0.16</i>	0.025 <i>0.05</i>	0.056 <i>0.12</i>
Completed Deal	0.763* <i>1.66</i>	0.710 <i>1.51</i>	0.621 <i>1.25</i>	0.788* <i>1.73</i>	0.704 <i>1.58</i>	0.701 <i>1.57</i>	0.736 <i>1.60</i>	0.559 <i>1.17</i>	0.600 <i>1.24</i>
N	147	147	147	147	147	147	147	147	147
Adj R-Sq	0.216	0.215	0.240	0.234	0.269	0.264	0.243	0.286	0.267

**Table 6. Probit Regressions of the Probability of a Ratings Upgrade**

The following table gives the probit regressions of the probability of a ratings upgrade against measures of shareholder power. Only completed deals are included in the regressions. Targets with no change in bond ratings are discarded. The dependent variable is a dummy variable which equals to one if the target bondholders experience a ratings upgrade, and zero if there is a ratings downgrade. Target rating changes is measured as the difference in the target's bond ratings on Month -3 and Month +3, where Month -3 is measured with respect to the month of the announcement date and Month +3 is measured with respect to the month of the effective date. When a target has multiple bonds, a weighted average ratings change is calculated over all the target's bonds, where the weights are based on the market value of the bonds in Month -3. Marginal effects are given. Robust T-Statistics are reported in *italics*. \*\*\*, \*\*, \* significant at the 1%, 5% and 10% level.

	<i>Probability of Upgrade</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
JRT Diff	0.074**	0.067**	0.068**	0.059**	0.069***	0.068***	0.077**	0.069**	0.065**
	<i>2.47</i>	<i>2.26</i>	<i>2.31</i>	<i>2.07</i>	<i>2.92</i>	<i>2.59</i>	<i>2.54</i>	<i>2.57</i>	<i>2.17</i>
Leverage Diff Dummy	-0.034	-0.026	-0.024	-0.074	-0.009	-0.016	-0.017	-0.009	-0.045
	<i>0.26</i>	<i>0.20</i>	<i>0.18</i>	<i>0.51</i>	<i>0.07</i>	<i>0.12</i>	<i>0.13</i>	<i>0.07</i>	<i>0.29</i>
Ret. Std Dev Diff Dummy	-0.042	-0.092	-0.086	-0.103	-0.019	-0.028	-0.037	-0.058	-0.101
	<i>0.32</i>	<i>0.66</i>	<i>0.61</i>	<i>0.72</i>	<i>0.14</i>	<i>0.21</i>	<i>0.27</i>	<i>0.41</i>	<i>0.68</i>
Maturity Diff Dummy	0.093	0.118	0.127	0.116	0.130	0.131	0.097	0.147	0.123
	<i>0.70</i>	<i>0.88</i>	<i>0.93</i>	<i>0.86</i>	<i>1.00</i>	<i>1.00</i>	<i>0.71</i>	<i>1.08</i>	<i>0.88</i>
Management Hldg		-0.008*	0.010					-0.018	0.002
		<i>1.68</i>	<i>0.36</i>					<i>1.11</i>	<i>0.09</i>
Management Hldg Squared			-0.000					0.000	-0.000
			<i>0.65</i>					<i>0.54</i>	<i>0.40</i>
Total Inst. Hldg				0.011***		0.001		-0.002	0.006
				<i>2.65</i>		<i>0.25</i>		<i>0.38</i>	<i>1.21</i>
Top 5 Inst. Hldg					0.035***	0.033**		0.040**	
					<i>3.01</i>	<i>2.05</i>		<i>2.54</i>	
Dummy for Inst. Block							0.275**		0.201
							<i>2.20</i>		<i>1.38</i>
Controls for deal characteristics	No	No	No	No	No	No	No	No	No
N	64	64	64	64	64	64	64	64	64
No. of Upgrade	41	41	41	41	41	41	41	41	41
Pseudo R-Sq	0.16	0.18	0.19	0.22	0.28	0.28	0.21	0.30	0.25

**Table 7. Regressions of Target Bond Returns - Interaction of Coinsurance Potential and Shareholder Power**

The following table gives the regressions of target announcement period excess bond returns against measures of shareholder power and the interaction between shareholder power and coinsurance potential. Coinsurance potential is defined as a dummy variable which equals one if the acquirer's worst rated bond is rated better than that of the target's. Robust T-Statistics are reported in *italics*. \*\*\*, \*\*, \* significant at the 1%, 5% and 10% level.

	(1)	(2)	(3)	(4)	(5)
Constant	-0.574 <i>0.82</i>	-0.901 <i>1.22</i>	-1.622 <i>1.55</i>	-1.518* <i>1.86</i>	-1.134 <i>1.42</i>
JRT Diff	0.254*** <i>3.55</i>	0.265*** <i>3.80</i>	0.234*** <i>2.98</i>	0.262*** <i>3.32</i>	0.221*** <i>2.85</i>
Leverage Diff Dummy	-0.215 <i>0.34</i>	-0.293 <i>0.47</i>	-0.028 <i>0.04</i>	-0.068 <i>0.11</i>	0.023 <i>0.04</i>
Ret. Std Dev Diff Dummy	-0.245 <i>0.41</i>	-0.222 <i>0.38</i>	-0.466 <i>0.80</i>	-0.483 <i>0.89</i>	-0.214 <i>0.39</i>
Maturity Diff Dummy	0.568 <i>1.20</i>	0.625 <i>1.36</i>	0.747* <i>1.70</i>	0.677 <i>1.61</i>	0.687 <i>1.62</i>
Management Hldg	0.003 <i>0.07</i>	0.097 <i>1.35</i>			
Management Hldg*Coinsurance Potential	0.018 <i>0.49</i>	-0.007 <i>0.20</i>			
Management Hldg Square		-0.001 <i>1.48</i>			
Total Inst. Hldg			0.025 <i>1.33</i>		
Total Inst. Hldg*Coinsurance Potential			0.000 <i>0.04</i>		
Top 5 Inst. Hldg				0.075** <i>2.21</i>	
Top 5 Inst. Hldg*Coinsurance Potential				-0.002 <i>0.05</i>	
Dummy for Inst. Block					0.630 <i>1.00</i>
Dummy for Inst. Block*Coinsurance Potential					0.668 <i>0.98</i>
Controls for deal characteristics	Yes	Yes	Yes	Yes	Yes
N	147	147	147	147	147
Adj R-Sq	0.212	0.235	0.229	0.264	0.242

**Table 8. Regressions of Target Bond Returns - Interaction of Debt Financing and Shareholder Power**

The following table gives the regressions of target announcement period excess bond returns against measures of shareholder power and the interaction between debt financing and shareholder power. Debt issue is a dummy variable which equals to one if SDC indicates that the deal is financed in some portions by debt securities. Robust T-Statistics are reported in *italics*. \*\*\*, \*\*, \* significant at the 1%, 5% and 10% level.

	(1)	(2)	(3)	(4)	(5)
Constant	-0.357	-0.485	-1.108	-1.300*	-1.112
	0.55	0.75	1.24	1.86	1.47
JRT Diff	0.274***	0.269***	0.226***	0.255***	0.245***
	4.27	4.20	3.55	3.96	3.71
Leverage Diff Dummy	-0.561	-0.582	-0.281	-0.205	-0.030
	0.95	0.98	0.47	0.36	0.05
Ret. Std Dev Diff Dummy	-0.457	-0.429	-0.650	-0.564	-0.214
	0.83	0.78	1.13	1.07	0.40
Maturity Diff Dummy	0.614	0.627	0.869**	0.790*	0.736*
	1.32	1.36	2.03	1.91	1.76
Management Hldg	0.031*	0.069*			
	1.90	1.76			
Management Hldg*Debt Issue	-0.094***	-0.075**			
	2.74	2.13			
Management Hldg Square		-0.001			
		1.35			
Total Inst. Hldg			0.021		
			1.54		
Total Inst. Hldg*Debt Issue			0.112***		
			2.78		
Top 5 Inst. Hldg				0.068***	
				3.36	
Top 5 Inst. Hldg*Debt Issue				0.323***	
				2.97	
Dummy for Inst. Block					0.992**
					2.25
Dummy for Inst. Block*Debt Issue					1.415
					0.61
Debt Issue	0.135	-0.146	-7.005***	-6.762***	-2.515
	0.08	0.08	5.16	2.63	1.09
Controls for deal characteristics	Yes	Yes	Yes	Yes	Yes
N	147	147	147	147	147
Adj R-Sq	0.263	0.265	0.263	0.292	0.251