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Evidence from Japan

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Abstract

This paper investigates whether managerial entrenchment of controlling shareholders affects corporate bond financing. Using data on Japanese manufacturing firms, we find that firms with controlling shareholders issue less straight corporate bonds than other firms. The results show that managerial entrenchment of controlling shareholders has an influential impact on corporate bond financing.

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1. Introduction

Concentrated ownership provides shareholders with incentives to monitor managers, and to exercise influence over decision-making within the firm. Such controlling shareholders tend to entrench managers against other corporate governance mechanisms to pursue their own interests, and enjoy private benefits of control.

Managerial entrenchment of controlling shareholders could have a significant effect on costs of bond financing. Controlling shareholders often have incentives to enjoy the private benefits of control that are detrimental to bondholders. Such conflicts of interest between controlling shareholders and bondholders result into potentially higher likelihood of default. If bondholders perceive expropriation by controlling shareholders as increasing the agency risk in the evaluation of potential default risk, bondholders charge firms with controlling shareholders a higher rate to cover costs arising from divergent interests (Bhojraj and Sengupta, 2003). Furthermore, credit rating agencies that evaluate potential default risk may also be concerned about expropriation by controlling shareholders, and assign lower bond ratings to firms with controlling shareholders, thereby resulting in higher cost of bond financing (Ashbaugh-Skaife *et al*.., 2006). As a consequence, agency costs (higher bond yields and lower bond ratings) adversely affect the bond issuance of firms with controlling shareholders.

On the other hand, in a managerial approach to capital structure choice, entrenched managers face loss of control over management when firms experience hostile takeovers or go into bankruptcy. Hostile takeovers and bankruptcies reduce managerial entrenchment because they affect the likelihood of managerial replacement (e.g., Novaes, 2003). To defend against unwanted takeover attempts, entrenched managers increase debt, thereby reducing raiders' takeover incentives (e.g., Berger *et al*.., 1997). In contrast, entrenched managers have an incentive to reduce debt to prevent bankruptcies. In choice of debt level, entrenched managers face a trade-off between lower debt levels that avoid bankruptcies and higher debt levels that deter hostile takeovers. However, if the threat of hostile takeover is absent, entrenched managers have an incentive to reduce debt to avoid bankruptcies. Consequently, in an environment in which the threat of hostile takeover is absent, managerial entrenchment provides controlling shareholders with less incentive to issue corporate bonds.

In this paper, we examine whether managerial entrenchment of controlling shareholders affects corporate bond financing. Given the discussion above, equity ownership by controlling shareholders could be negatively associated with levels of corporate bonds in an environment in which the threat of hostile takeover is absent－hostile takeover activities themselves are rare or higher equity ownership defend against hostile takeovers.

Using data on Japanese manufacturing firms, we find that equity ownership by large corporate shareholders is negatively related to levels of straight corporate bonds after controlling for other determinants of straight corporate bonds. This indicates that firms with controlling shareholders issue less straight corporate bonds than other firms. As a consequence, managerial entrenchment of controlling

shareholders has an influential impact on corporate bond financing.

2. Data

Our data come from financial statement dataset compiled by the Japan Development Bank which includes the unconsolidated data of the non-financial firms traded on the stock exchange. We use data on manufacturing firms listed on the stock exchange from March 1994 to March 1999. As a result, our sample consists of 1049 firms.

We focus on Japanese manufacturing firms because large corporate shareholders as controlling shareholders are prevalent. The relationship between owned firms and large corporate shareholders is often characterized as a vertical business linkage between subcontracting firms as suppliers and core firms as manufacturers. Large corporate shareholders as stable shareholders have long-term relationships with owned firms through repeat business transactions. Such large corporate shareholders have strong incentives to entrench managers to maintain long-term relationships with owned firms. Moreover, hostile takeovers rarely occurred in the 1990s in Japan.[1] Although mergers and acquisitions (M&A) increased in the late 1990s, most of them were friendly takeovers. Therefore, data on Japanese manufacturing firms in the 1990s are suitable for testing our hypothesis.

To test our hypothesis, we estimate the following equation:

$$\begin{aligned}&\text{Straight corporate bond ratio}_t\\&=\beta_0+\beta_1\text{Large corporate shareholder ownership}_{t-1}+\beta_2\text{Financial institution ownership}_{t-1}\\&+\beta_3\text{ROA}_{t-1}+\beta_4\text{Loan ratio}_{t-1}+\beta_5\text{Cash ratio}_{t-1}+\beta_6\text{Other corporate bond ratio}_{t-1}\\&+\beta_7\text{Sales growth}_{t-1}+\beta_8\text{Firm size}_t+\beta_9\text{Firm age}_t+\varepsilon_t\end{aligned}$$

where straight corporate bond ratio is the ratio of straight corporate bonds to total assets, large corporate shareholder ownership is equity ownership by corporate shareholders as top shareholder, financial institution ownership is equity ownership by financial institutions, ROA is the ratio of pre-tax income to total assets, loan ratio is the ratio of loans (short- and long-term loans) to total assets, cash ratio is the ratio of cash and deposits to total assets, other corporate bond ratio is the ratio of convertible and warrant bonds to total assets, sales growth is the growth rate of sales over the previous year, firm size is the logarithm of total assets, firm age is the logarithm of years elapsed since establishment, t is the time subscript, β_0 is a constant, and ε_t is the error term.

In the equation, our key variable is large corporate shareholder ownership. We here use two variables: equity ownership of more than 10% (large corporate shareholder ownership 10) and more than 20% (large corporate shareholder ownership 20). Higher equity ownership could serve as effective way of averting hostile takeovers, and provide shareholders with incentives to entrench managers. We expect the coefficients on these variables to be negative. Data on equity ownership by large corporate shareholders come from *Japan Company Handbook*. Financial institution ownership is included to capture the strength

[1] Xu (2006) documents that hostile takeover activities in Japan increased drastically from January 2000.

of the relation between financial institutions and firms.[2] Return on assets (ROA) is intended to control for financial conditions. We include the variables for loans, cash and other corporate bonds to capture the effects of funds that could substitute for corporate straight bonds. Sales growth is included to capture the effect of bond demand. Firm size and firm age are included because they are proxies for the creditworthiness of the firm. Typically, larger and older firms could have easy access to the bond market.

Descriptive statistics for variables are provided in Table 1. Note that we remove the extreme values to ensure robust results.[3]

3. Results

Table 2 provides tobit regression estimates for the determinants of straight corporate bonds. To avoid potential endogeneity problem, we use one period lagged values of the independent variables except for firm size and firm age. Because data on equity ownership by large corporate shareholders are not available for all firms for all years, the number of observations varies with specifications. All our specifications include industry dummy variables and year dummy variables.

Column 1 contains the results for the specification without the variable for large corporate shareholder ownership. We find significantly higher levels of straight bonds in firms with higher equity ownership by financial institution, lower ROA, less other funds (loans, cash, and other corporate bonds), higher sales growth, and larger firms.

Column 2 contains the results for the specification with large corporate shareholder ownership 10. Negative and significant coefficient on large corporate shareholder ownership 10 indicates that firms with controlling shareholders issue less straight corporate bonds than other firms because of higher agency costs and incentives to avoid bankruptcies. The results for other variables are similar to those in column 1 except for financial institution ownership. This may be driven by higher correlation between two ownership variables. Indeed, the correlation coefficient of the two is -0.59.[4] Column 3 contains the results for the specification with large corporate shareholder ownership 20, which could serve as more effective way of averting hostile takeovers. The coefficient on large corporate shareholder ownership 20 remains significantly negative. Results for other variables do not change.[5]

4. Conclusion

This paper examines whether managerial entrenchment of controlling shareholders has an essential impact

[2] Kang and Liu (2007) document that bond issues of firms closely affiliated with banks are more likely to be underwritten by banks.

[3] Extreme observations are defined as those for which any one of the variables has a value more than four standard deviations away from the mean value.

[4] The negative correlation between them may suggest that financial institutions tend not to have shares of firms with large corporate shareholders (Barucci and Mattesini, 2008).

[5] In columns 2-3, we obtain similar results when financial institution ownership is not included.

on corporate bond financing. Using data on Japanese manufacturing firms, we find that equity ownership by large corporate shareholders is negatively associated with levels of straight corporate bonds after controlling for other determinants of straight corporate bonds. This indicates that firms with controlling shareholders issue less straight corporate bonds than other firms because of higher agency costs and incentives to avoid bankruptcies. As a consequence, managerial entrenchment of controlling shareholders has a substantial impact on corporate bond financing.

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Table 1. Descriptive statistics

Variable	Mean	Standard deviation
Straight corporate bond ratio	0.022	0.044
Large corporate shareholder ownership 10	0.309	0.154
Large corporate shareholder ownership 20	0.371	0.133
Financial institution ownership	0.313	0.158
ROA	0.023	0.045
Loan ratio	0.191	0.181
Cash ratio	0.100	0.077
Other corporate bond ratio	0.035	0.062
Sales growth	−0.001	0.104
Firm size	10.902	1.333
Firm age	3.994	0.299

Table 2. Managerial entrenchment and corporate bond financing

	Dependent variable: straight corporate bond ratio		
Independent variable	1	2	3
Large corporate shareholder ownership 10_{t-1}		−0.120*	
		(0.016)	
Large corporate shareholder ownership 20_{t-1}			−0.108*
			(0.016)
Financial institution ownership$_{t-1}$	0.090*	−0.009	0.003
	(0.019)	(0.023)	(0.023)
ROA$_{t-1}$	−0.516*	−0.517*	−0.517*
	(0.066)	(0.066)	(0.066)
Loan ratio$_{t-1}$	−0.068*	−0.077*	−0.077*
	(0.016)	(0.016)	(0.016)
Cash ratio$_{t-1}$	−0.095*	−0.122*	−0.120*
	(0.033)	(0.034)	(0.034)
Other corporate bond ratio$_{t-1}$	−0.128*	−0.115*	−0.116*
	(0.035)	(0.035)	(0.035)
Sales growth$_{t-1}$	0.072*	0.074*	0.074*
	(0.026)	(0.026)	(0.026)
Firm size$_t$	0.028*	0.031*	0.031*
	(0.002)	(0.002)	(0.002)
Firm age$_t$	0.010	0.012	0.012
	(0.008)	(0.008)	(0.008)
No. of observations	4025	4010	4010
Pseudo R^2	0.563	0.611	0.606
Log likelihood	−251.125	−222.864	−225.925

Notes

The table reports tobit regression estimates for 1049 Japanese manufacturing firms listed the stock exchange from March 1994 to March 1999. All regressions include a constant, industry dummy variables and time dummy variables. Numbers in parentheses are standard errors. * denotes significance at the 1 % level.