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How do managerial incentives affect the maturity structure of corporate public debt?

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ABSTRACT

I examine the relation between managerial ownership and the maturity structure of corporate public debt by using a sample of newly issued Japanese corporate bonds. Firms with higher managerial ownership issue shorter maturity bonds. In addition, firms with higher managerial ownership have lower credit ratings and experience higher yield spreads. Finally, firms with higher managerial ownership exhibit higher firm performance and show a preference for risk-taking activities. Overall, my findings support the view that bondholders are concerned about wealth transfers from bondholders to shareholders through risk-taking activities and require firms with higher managerial ownership to issue shorter maturity bonds.

1. Introduction

Equity ownership held by managers, often referred to as managerial ownership, is an important governance mechanism. As Berle and Means (1932) note, when ownership is separated from management, managers hold little equity in the firm and shareholders are too dispersed to monitor managers. In such situations, managers can use their discretion to enjoy private benefits of control that are often detrimental to investors. However, as managerial ownership level increases, their preferences for adopting management policies change, thereby influencing the quality of corporate governance.

Whether and how managerial ownership affect firm value is a contentious topic. Earlier studies document a significant relation between managerial ownership and firm value (e.g., Morck et al., 1988; McConnell and Servaes, 1990). Examining the relation between managerial ownership and firm value is one way to deepen the understanding of managerial ownership. Alternatively, how bondholders view managerial ownership is an important question because debt is the dominant source of capital structure and is crucial for firm's activities.

Previous studies address this question by focusing on debt maturity structure, but the conclusions of such studies are inconsistent. Datta et al. (2005) find a significant and negative relation between equity ownership held by the top five executives and the ratio of debt with maturities of more than 3 or 5 years to total debt. In contrast, Custódio et al. (2013) find no significant difference in the median of the ratio of debt with maturities of more than 3 years to total debt between groups with low managerial ownership and high managerial ownership. Thus, there is scope for further analysis of the relation between managerial ownership and debt maturity structure.

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In this paper, I investigate the relation between managerial ownership and debt maturity structure by using a sample of newly issued corporate bonds. A large body of literature tests the hypotheses based on the maturity of debt outstanding.[1] The balance sheet approach, which explores debt structure at a particular moment in time, is associated with the problem of averaging financing decisions. In contrast, the approach involving the incremental maturity of debt explores debt structure at the time of financing decisions, and the type of debt maturity is readily identified (Dennis et al., 2000).[2] However, because equity ownership held by managers does not fluctuate over time, the incremental approach is not suitable to test the relation between managerial ownership and the maturity structure of new debt (Guedes and Opler, 1996). Nevertheless, the incremental approach has two advantages over the balance sheet approach. First, in the incremental approach, information on credit ratings and yield spreads is often available for newly issued corporate bonds. Examinations of the relation between credit ratings or yield spreads and managerial ownership can complement the analysis of the relation between managerial ownership and debt maturity structure. Second, because balance sheet data are an aggregation of historical debt issuances, the sample might include firms that cannot or do not need to raise funds. Firms that obtain new debt financing must have a positive demand for debt. Using data on new debt issuances limits the sample to firms that have a positive demand for debt and facilitates hypothesis testing from the perspective of investor demand. The existing theories proposed by previous studies focus on firm demand-side factors that can influence debt maturity structure. However, factors related to the supply of funds (i.e., investor demand) contribute to determining the maturity structure of corporate public debt (e.g., Brockman et al., 2010; Magri, 2010; Custódio et al., 2013). Thus, I propose theoretical hypotheses about the relation between managerial ownership and debt maturity structure by focusing on the role of investor demand in the corporate bond markets.

To test my hypotheses, I use a sample of newly issued Japanese corporate bonds during the period 2005–2012. My focus is on Japanese firms for two reasons. First, Japan has one of the largest corporate bond markets in the world, and detailed data on corporate bonds are available for yields, issue size, issue maturity, credit ratings, and other bond characteristics. Second, prior studies show that managerial ownership in Japanese firms contributes positively to firm value (Morck et al., 2000; Chen et al., 2003; Hiraki et al., 2003), suggesting that equity ownership provides Japanese managers with incentives to increase firm value. Thus, managerial ownership in Japanese firms can affect the quality of corporate governance. For these reasons, Japanese firms are well-suited for examining my hypotheses.

Using the dataset, I find a negative relation between managerial ownership and the maturity structure of corporate bonds, suggesting that firms with higher managerial ownership issue shorter maturity bonds. The results support the argument that higher managerial ownership is viewed negatively in the corporate bond markets. I perform a variety of robustness checks. To address any endogeneity concerns, I first conduct a test of endogeneity. The results suggest that the regression results are unlikely to be subject to endogeneity concerns. I further address any selection bias using Heckman's (1979) two-stage estimation procedure. The results are qualitatively similar after controlling for sample selection terms. My results are robust to various alternative specifications concerning the crisis period variable, adjusted credit rating variables, system equation models, an additional ownership variable, nonlinearities in the control variables, and the restricted sample.

To confirm my results, I investigate how credit rating agencies evaluate higher managerial ownership. If credit rating agencies perceive higher managerial ownership as increasing the default risk of debt, such agencies should assign lower credit ratings to firms with higher managerial ownership. I find that firms with higher managerial ownership have lower credit ratings. In a similar vein, I further examine the relation between managerial ownership and yield spreads. If bondholders perceive higher managerial ownership as increasing the default risk, they should demand higher yields for firms with higher managerial ownership. I find that firms with higher managerial ownership face higher yield spreads.[3]

Given that credit rating agencies and bondholders are concerned about the default risk associated with higher managerial ownership, I first attempt to test the relation between managerial ownership and firm performance. I find that firms with higher managerial ownership have higher firm performance. Next, I test whether firms with higher managerial ownership engage more in risk-taking activities. I find that firms with higher managerial ownership have higher firm-specific risk.[4]

Taken together, my findings support the view that bondholders are concerned about managerial preferences for risk-taking activities, and have incentives to monitor managers by shortening debt maturity. This evidence is consistent with the idea that investor demand in the corporate bond markets plays an important role in determining the maturity structure of corporate bonds (Custódio et al., 2013).

My work makes two contributions to the extant literature. First, previous studies focus on US firms and examine the relation between managerial ownership and the maturity of debt outstanding from the perspective of firm demand (e.g., Datta et al., 2005; Custódio et al., 2013). To the best of my knowledge, my study is the first to examine the relation between managerial ownership and debt maturity structure using a sample of newly issued Japanese corporate bonds from the perspective of investor demand. Second, earlier studies show that yield spreads are higher for firms with higher managerial ownership because of wealth transfers from bondholders to shareholders (Bagnani et al., 1994; Ortiz-Molina, 2006). This study contributes to these extant

[1] Prior works that use the balance sheet approach based on debt outstanding include, e.g., Barclay and Smith (1995), Stohs and Mauer (1996), Johnson (2003), Berger et al. (2005), Datta et al. (2005), Billet et al. (2007), Brockman et al. (2010), and Custodio et al. (2013).

[2] Previous studies that use the incremental approach based on new public debt issues include, e.g., Guedes and Opler (1996), Custodio et al. (2013), and Badoer and James (2016) for US firms and Cai et al. (1999) for Japanese firms.

[3] Earlier studies on the relation between corporate governance and yield spreads include, e.g., Anderson et al. (2003), Bhojraj and Sengupta (2003), Anderson et al. (2004), Klock et al. (2005), Ortiz-Molina (2006), Cremers et al. (2007), Ertugrul and Hegde (2008), Qiu and Yu (2009), Anderson et al. (2010), Liu and Jiraporn (2010), Bradley and Chen (2011), Shuto and Kitagawa (2011), and Tanaka (2014).

[4] See, e.g., Coles et al. (2006), John et al. (2008), and Nguyen (2011) for empirical studies on the relation between corporate governance and risk-taking activities.