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On the value of restrictive covenants: Empirical investigation of public bond issues

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ABSTRACT

Are restrictive covenants effective mechanisms in mitigating agency problems? Is the magnitude of the increase in the cost of debt due to agency problems non-trivial? We tackle these questions using a large dataset of public bonds. Contrary to the view that restrictive covenants in public bond contracts are standard boilerplates that serve little purpose, we find significant benefits in terms of reduction in the cost of debt associated with covenants. Restrictions on investment activities or issuance of higher priority claims reduce the cost of debt by about 35–75 basis points. These findings suggest that investors view bond covenants as important instruments in mitigating agency problems, and an increase in the cost of debt due to agency problems could be substantial. Additionally, we find that high growth firms and firms with low probability of default are less likely to include covenants suggesting that the costs of covenants outweigh benefits for these types of firms.

1. Introduction

Restrictive covenants are common elements in debt contracts, yet we have limited empirical evidence on how different types of covenants affect debt prices. Most empirical studies focus on factors affecting the firm's choice of covenants or causes and consequences of covenant violations.[1] By contrast, the main purpose of this paper is to investigate the impact on bond prices of covenants that restrict financing activities, investment activities and payouts. By studying the magnitude of the price effect of covenants, we are able to offer insights into the magnitude of the increase in the cost of debt due to agency problems and add to the debate on the overall effectiveness of bond covenants as instruments in mitigating agency problems.

Economists have long recognized that managers of the firm, whose ultimate responsibility is to shareholders, may take actions that increase the wealth of shareholders at the expense of bondholders. The impact of the shareholder–bondholder conflicts on investment decisions and the cost of debt have been widely discussed in the theoretical literature. Little is known, however, about the magnitude of the distortions and magnitude of the increase in the cost of debt due to the agency problems.[2] Using numerical simulations, Parrino and Weisbach (1999) estimate that the magnitude of the distortions due to the shareholder–bondholder conflict and the agency costs of debt are likely to be small. The authors caution, though, that the presence of restrictive covenants in debt contracts suggests a possibility of large distortions (p. 39). Given that the main cited purpose of covenants is to mitigate agency problems, examining the price effect of covenants may provide insights into the magnitude of the increase in the cost of debt due to the agency problems.

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[1] See, for example, Begley and Feltham (1999), Nash et al. (2003), Bradley and Roberts (2004), Qi et al. (2011), Miller and Reisel (2012).

[2] As a result, the literature has not reached a consensus on the overall importance of shareholder–bondholder conflict in explaining the capital structure choice.

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Smith and Warner (1979) are among the first to argue that restrictive covenants are effective instruments in mitigating agency problems in bond contract design. The importance of covenants in optimal financial contracting was further discussed by Aghion and Bolton (1992), Rajan and Winton (1995) and Watts and Zimmerman (1986, 1990), among others. By allocating state-contingent control rights to debtholders, covenants protect bondholders from possible opportunistic actions of managers which, in turn, allow firms to reduce the cost of debt by issuing bonds at lower yields. Covenants, however, may also impose significant costs on firms by limiting managerial flexibility. As such, bond issuers weigh the costs and benefits of covenants while designing bond contracts and only firms with positive *net* benefits include restrictive covenants. Thus, the optimal contracting hypothesis predicts that benefits of covenants, which are manifested in the reduction in the cost of debt, should be non-trivial.

The optimal contracting hypothesis contrasts with the view that bond issuers put little effort into debt contract design in terms of mitigating agency problems. This strand of literature suggests that bond covenants, unlike loan covenants, are often written loosely by lawyers, using boilerplate language, raising concerns about the effectiveness of bond covenants in mitigating agency problems (e.g., Beneish and Press, 1995; Chen and Wei, 1993; Nini et al., 2009; Verde, 1999).[3] Further, according to a number of legal institutions, an effective enforcement of covenants requires monitoring and processing of information. For instance, if lenders do not monitor for violation, the Doctrine of Waiver implies that they waive the covenant. Dispersed bondholders are less likely to monitor and process accounting information important for covenant enforcement than banks (e.g., Diamond, 1984; Ramakrishnan and Thakor, 1984). This implies that restrictive covenants in bond contracts may not be as beneficial as the wealth transfer argument would predict. Within this view, bond covenants would represent what Kahan and Yermack (1998) call the neutral mutation of security design of the type suggested by Miller (1977) and thus should have little impact on the cost of debt.

In this paper, we attempt to provide direct evidence of the benefits of covenants by analyzing the reduction in bond yields associated with restrictive covenants. In addition, we provide indirect evidence of the importance of the costs of covenants by analyzing the characteristics of firms that avoid including covenants in bond contracts. Our analysis is based on a large dataset of public bonds and incorporates endogeneity of covenant choice.

We find that restrictions on the issuance of higher priority claims such as negative pledge and sale–leaseback covenants reduce the cost of debt by about 60–75 basis points (depending on the specification used). We also find that restriction on investment activities such as merger and asset sales covenants reduce the cost of debt by about 35–60 basis points.[4] The magnitudes of the price effects are both economically and statistically significant. The results are robust to a set of control variables, including proxies for mechanisms mitigating agency problems at the firm and state levels: We consistently find that the majority of covenants provide significant benefits by reducing the cost of debt.

Further, the evidence presented in this paper confirms the crucial role of costs in the firm's choice of restrictive covenants. The high costs of covenants explain why firms may avoid these instruments in debt contract design. We find that high market-to-book firms are less likely to include restrictive covenants using both reduced-form and structural models of covenant selection. Our results are consistent with Nash et al. (2003) who argue that the costs of covenants may exceed benefits in high market-to-book firms. We also find that investment grade companies seldom include restrictions on payouts and additional debt; less than 6% of the investment grade companies in our sample include such restrictions. These covenants are likely to be too costly, i.e. net benefits are low, for the investment grade firms as firms with low probability of financial distress tend to pay dividends and rely on debt financing.[5] Overall, our results suggest that both costs and benefits of covenants influence debt contract design and provide evidence of self-selection in the firm's choice of covenants in support of the optimal contracting hypothesis.

Public bond contracts provide an important setting to examine the role of covenants in mitigating agency problems, which allows us to make a novel contribution to the literature. Our first contribution to literature is to show that bondholders value restrictive covenants and, as such, covenants are important mechanisms in mitigating agency problems. Related to our paper are the studies that examine factors affecting a firms' choice of covenants in public bond contracts (e.g. Begley and Feltham, 1999; Chava et al., 2010; Nash et al., 2003). Their findings of high contract variability across firms provide prima facie evidence on the importance of covenants. Our approach, however, allows us to provide direct estimates of the benefits of covenants and its magnitude.

Given that the existence of restrictive covenants is rationalized by their ability to mitigate agency problems (see also Tirole, 2006), our findings also imply that the magnitude of the increase in the cost of debt due to agency problems could be substantial and may explain why firms use debt conservatively in their capital structure (Graham, 2000; Parrino and Weisbach, 1999).[6] Further, the findings contribute to the empirical literature that identifies a link between covenants and firm value (e.g., Beneish and Press, 1995; Harvey et al., 2004) as we provide evidence that bond covenants reduce the cost of debt, which is a necessary condition for firm-level benefits.

Our findings are also related to the literature that examines covenants in loan contracts. Bradley and Roberts (2004), for example, demonstrate that the expected benefits of restrictive covenants positively impact the likelihood of their inclusion in loan

[3] See Section 3 of the paper for further discussion. One may also argue that covenants in bank loans protect bondholders again suggesting that restrictive covenants in public bonds serve little purpose. However, the literature argues that banks mainly act in self-interest (e.g., Roberts and Sufi, 2007). For example, upon violation of loan covenants, which happens quite often and rarely results in default, banks renegotiate the terms of loan contracts such as maturity, interest rate and collateral to increase bank protection potentially at the expense of other debtholders.

[4] We focus on the investment grade companies while estimating the price effect of restrictions on investment activities because almost all non-investment grade companies include these restrictions.

[5] See, for example, Gomes and Phillips (2012).

[6] Since covenants are not necessarily perfect mechanisms in mitigating agency problems, our estimates are likely to understate the magnitude of increase in the cost of debt due to the agency problems.