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Capital structure and corporate governance quality: Evidence from the Institutional Shareholder Services (ISS)

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ABSTRACT

Grounded in agency theory, this study explores how capital structure is influenced by aggregate corporate governance quality. We measure governance quality using broad-based comprehensive governance metrics provided by the Institutional Shareholder Services (ISS). The empirical evidence reveals a robust inverse association between leverage and governance quality. Firms with poor governance are significantly more leveraged. It appears that leverage substitutes for corporate governance in alleviating agency conflicts. Further, we utilize empirical methods that control for endogeneity and show that poor governance quality likely brings about, and does not merely reflect, higher leverage. Our results are important as they show that the overall quality of corporate governance has a material impact on critical corporate decisions such as capital structure choices.

1. Introduction

The literature in capital structure began with the seminal work by Modigliani and Miller (1958) on the irrelevance of capital structure. Since then, capital structure continues to be a topic of interest in financial economics and has produced an enormous volume of research. Parsons and Titman (2008) offer a thorough and timely review of the literature in this area. Several theories have been advanced to explain capital structure decisions. One theory that has garnered strong empirical support is agency theory. Agency theory posits that capital structure is determined by agency costs due to conflicts of interest. The literature in this area has been built on the early work by Fama and Miller (1972) and Jensen and Meckling (1976).

Motivated by agency theory, this study is related to agency costs as an explanation for capital structure decisions. Specifically, this paper explores the association between capital structure and corporate governance quality. Corporate governance exists to provide checks and balances between shareholders and management and thus to mitigate agency problems. Hence, firms with better governance quality should suffer less agency conflicts.

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Like corporate governance, leverage has been argued to alleviate agency costs as well. Agency problems can be mitigated by leverage in several ways. First, one way to reduce agency conflicts is to cause managers to increase their ownership in the firm (Jensen & Meckling, 1976). By increasing the use of debt financing, effectively displacing equity capital, and firms shrink the equity base, thereby increasing the percentage of equity owned by management. Second, the use of debt increases the probability of bankruptcy. This additional risk may further motivate managers to decrease their consumption of perks and increase their efficiency (Grossman & Hart, 1982). Finally, the obligation of interest payments resulting from the use of debt helps resolve the free cash flow problem (Jensen, 1986).

Because leverage imposes constraints on managerial discretion, agency theory suggests that managers may be motivated to adopt sub-optimal leverage that does not maximize shareholders' wealth. The extent to which managers can take on sub-optimal leverage should hinge critically on the strength of corporate governance as corporate governance is specifically designed to combat agency conflicts. Hence, we argue that there ought to be a significant relation between leverage and corporate governance quality. This is the central premise of our study.

To measure corporate governance quality, we employ the governance standards provided by the Institutional Shareholder Services (ISS). The ISS governance standards include 51 factors encompassing eight corporate governance categories: audit, board of directors, charter/bylaws, director education, executive and director compensation, ownership, progressive practices, and state of incorporation. The ISS governance standards are the most all-inclusive data on corporate governance ever collected.

Governance matrices constructed from the ISS governance standards are especially interesting because prior literature shows that they are significantly related to several crucial corporate outcomes. For instance, using the ISS governance data to gauge the strength of corporate governance, Brown and Caylor (2006) find that firms with better governance quality are more profitable and more valuable (higher Tobin's q). Their results imply that firms with better governance quality experience lower agency costs and, hence, exhibit better performance and higher firm value. In addition, Chung et al. (2010) show that firms with better governance quality have narrower spreads, higher market quality index, smaller price impact of trades, and lower probability of information-based trading.[4] Also, Charoenwong et al. (2011) investigate the relationship between the quality of governance structure and adverse selection component with stocks listed on Singapore Exchange. They show that corporate governance has an inverse relationship with the adverse selection components of bid–ask spreads

Our empirical evidence shows a robust inverse relationship between leverage use and governance quality. In other words, firms where corporate governance is weaker are found to be significantly more leveraged. We argue that, due to the role of debt in mitigating agency costs, higher leverage substitutes for weaker governance mechanisms in alleviating agency conflicts. The negative association documented in this study is consistent with the *substitution hypothesis*. First advanced by La Porta et al. (2000), the substitution hypothesis posits that firms with weak governance, in an attempt to raise capital on attractive terms, need to establish a reputation for not expropriating wealth from shareholders. One way to do so is to carry more debt as fixed interest payments reduce what is left for expropriation; the weaker the firm's governance, the stronger the need for the reputation mechanism, and, thus, the more debt the firm should carry. The substitution effect we document is not only statistically significant but also economically meaningful. As firms improve their governance index from the 25th to 75th percentile, their leverage would decrease by as much as 12.88%.

Furthermore, it can be argued that leverage and corporate governance are endogenously determined. We relate corporate governance quality in an earlier time period to subsequent leverage to minimize endogeneity and find that the direction of causality is much more likely to run from governance quality to leverage than vice versa. In addition, using the two-stage least squares (2SLS) approach, which is less vulnerable to endogeneity, we find that the inverse association remains robust. Finally, our analysis based on year-to-year changes in corporate governance quality also reveals that an increase in governance quality is associated with a reduction in leverage. Overall, the evidence suggests that endogeneity does not appear to pose a serious threat in our sample.

We also compare our governance quality metrics with those employed in prior studies. In particular, we examine both the Governance Index developed by Gompers et al. (2003) and the Entrenchment Index invented by Bebchuk et al. (2009). We argue that our governance metrics are broader and capture far more information beyond what is impounded in the Governance Index or the Entrenchment Index. The empirical evidence strongly reinforces our argument, showing that our ISS-based governance metrics can explain variation in capital structure far better than the other two indexes.

The results of this study enrich the literature in several ways. First, the literature in corporate governance benefits because we show that governance quality is a significant determinant of capital structure.[5] Prior studies have examined the impact of Gompers et al.'s (2003) index on capital structure decisions (Jiraporn & Gleason, 2007; John & Litov, 2009). Our ISS governance metrics, however, provide much broader measures of governance quality than Gompers et al.'s (2003) Governance Index. Moreover, a recent study by Bebchuk et al. (2010) finds that the effect of Gompers et al.'s index on stock returns does not exist after the year 2000. They suggest that market participants learn over time about the difference between well-governed and poorly

[4] A number of recent studies also make use of the governance data provided by the ISS. For example, Aggarwal et al. (2009) employ the ISS governance data to compare governance quality between U.S. and international firms. They find that minority shareholders benefit as governance quality improves.

[5] A substantial number of studies seek to understand the impact of corporate governance on various corporate outcomes such as firm value (Brown & Caylor, 2006; Cremers & Nair, 2005; Gompers et al., 2003; Park et al., 2008), costs of debt financing (Cremers et al., 2007), corporate diversification (Jiraporn et al., 2006), cash holding (Dittmar & Mahrt-Smith, 2007), debt maturity structure (Harford et al., 2008), CEO compensation (Fahlenbrach, 2009), institutional ownership (Ciceksever et al., 2006), and liquidity (Chung et al., 2010).