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Ownership structure and debt leverage: Empirical test of a trade-off hypothesis on French firms☆

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ABSTRACT

Debt may help to manage type II corporate agency conflicts because it is easier for controlling shareholders to modify the leverage ratio than to modify their share of capital. A sample of 112 firms listed on the French stock market over the period 1998–2009 is empirically tested. It supports an inverted U-shape relationship between shareholders' ownership and leverage. At low levels of ownership, controlling shareholders use more debt in order to inflate their stake in capital and to resist unfriendly takeovers attempts. When ownership reaches a certain point, controlling shareholders' objectives further converge with those of outside shareholders. Moreover, financial distress will prompt controlling shareholders to reduce the firm's leverage ratio. Empirically, it is shown that the inflection point where the sign of the relationship between ownership and debt changes is around 40%. Debts may help in curbing private appropriation and appears also as a governance variable.

1. Introduction

Recent empirical studies in corporate governance show the prevalence of firms with a dominant shareholder (La Porta et al., 1997, 1998, 1999; Claessens et al., 2000; Faccio et al., 2002; Paligorova and

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Xu, 2009). The fundamental agency problem in firms with a dominant shareholder is between controlling shareholders and outside investors. This situation can potentially impact a firm's financing decisions, particularly choices regarding leverage. The capital structure literature addresses the relationship between ownership structure and debt levels for firms with diffused ownership.[1] The results of these studies are mixed to some extent. Some studies suggest that debt is positively related to managers' equity ownership (Leland and Pyle, 1977; Stulz, 1988; Harris and Raviv, 1988a,b; Berger et al., 1997), while other empirical studies argue for a negative relationship between managerial ownership and debt levels (Friend and Lang, 1988). Another line of research investigates how the separation of cash flow rights and control rights affects capital structure. Namely, it explores the impact of the outside shareholders' expropriation risk on debt levels. Here, debt is seen as an expropriation device similar to control enhancement mechanisms.

Our motivation is different; we investigate the relationship between controlling shareholders' ownership and corporate debt levels. Here also the extent literature shows mixed results. Kim and Sorensen (1986), and Agrawal and Mandelker (1987) for American firms; Friedman et al. (2003) for Asian firms; Boubaker (2007) for French firms; and Holmen and Hogfeldt (2004) for Swedish firms all find evidence of a positive relationship between debt and control. Considering U.S. firms, Nielsen (2006) empirically documents a trade-off between a levered financial structure and a weak shareholding. These results suggest that debt will help in expropriation because it gives more power on economic resources. However, the conclusions are not unanimously univocal. Faccio et al. (2003) moderate the former idea. In the United States, debt seems to play an effective, disciplinary role in governance. In Europe, the companies at the bottom of a pyramid, who are seen as more vulnerable, are not particularly indebted. On the other hand, in Asia, the situation is different, with strong pressure on the firms in the pyramid. However, excessive debt leverage exposes the firm to failure, a situation where both public and private earnings for the control group are lost. Holderness et al. (1999) find no relationship and show that managerial stock ownership does not increase with debt leverage. Grullon and Kanatas (2001) for American firms or Brailsford et al. (2002) for Australian firms conclude in favor of a nonlinear complex relation between control and debt, positive at the beginning but turning negative at a certain point of control. For the latter, the inside shareholders will try to avoid a loss of control linked to a risk of financial distress, so they will limit the debt ratio of the controlled firm. Ellul (2008) confirms such a nonlinear relationship in a large sample of family firms over many countries. The category of family firms is a subset of controlled firms with specific features. Many empirical studies underline the importance of control incentives (Anderson et al., 2003; Doukas et al., 2010). Family firms prefer debt financing as a non-dilutive security. This paper proposes an empirical study of a self-regulated relationship between debt levels and controlling shareholders' capital ownership. Our hypothesis is that this relationship is non-linear. Capital structure decisions depend on the trade-off between the non-dilution entrenchment needs of controlling shareholders and their goal of reducing firm risk. Thus, the relation between controlling shareholders' ownership and the firm's debt levels may be complex and may have an inverted-U shape. We use a sample of firms listed in the French stock market from the SBF 250 index over the period 1998–2009 in order to explore this relationship.

The French context provides an especially good platform to conduct our research for several reasons. First, as documented by La Porta et al. (1999), the corporate governance system in France is characterized by a high concentration of ownership, family-controlled firms, the presence of family members in management, the relative lack of good protection of outside shareholders, and an inefficient law enforcement system. French firms rely more heavily on bank financing and their internal funding is decreasing. Domestic institutional environment is seen as important to explain the international differences in financing decision (Alves and Ferreira, 2011; Cheng and Shiu, 2007). By considering only one country we neutralize this effect.

Our results show that controlling shareholders' ownership affects a firm's debt level in different ways and support the hypothesis of a trade-off relationship. In particular, we evidence to an inverted U-shaped relationship between the ownership stake of the controlling shareholders and debt levels. Thus, debt first increases (non-dilution entrenchment effect) and then decreases (risk reduction and

[1] These are developed mainly in the US context.