
MICHELA ALTIERI

**PRICING
THE PUBLIC DEBT
OF BUSINESS
GROUPS:
THE U.S. MARKET**



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NOVEMBER 2023

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INTRODUCTION

The textbook theory of corporate financing decisions is written from the perspective of a stand-alone company; however, a large number of firms are organized in groups, both in developed and in developing countries (Khanna and Yafeh, 2005). Despite the fact that a large volume of securities issuance activity is generated by business groups in the U.S. (Kolasinski, 2009), this phenomenon remains largely unexplained.

This work investigates the relationship between business group affiliation and the cost of corporate debt with an empirical application to the US corporate bond market. After an overview of the institutional background in Chapter 1, the theoretical implications of business group affiliation for the borrowing costs are illustrated in Chapter 2. Finally, they are empirically investigated in Chapter 3.

Several mechanisms can affect the borrowing conditions of firms when they belong to a group. Limited liability of parent companies with respect to its subsidiaries is the main characteristic that distinguishes the business group from other company organizations. On the one hand, some past literature documented moderate risk sharing activity within groups (Khanna (2002); Byun et al. (2013)). These works argue that both parent and subsidiaries haven a lower cost of debt.

Other works, however, argue that business groups are a device through which the controlling shareholders either expropriate the minority shareholders for their private benefits (Bae et al. (2002); Claessens et al. (2000b); Johnson et al. (2000)), or substitute more risky assets for existing ones Banal-Estanol et al. (2013). Then, a tunneling activity (Morck et al., 2005) , or a risk shifting behavior (Khanna and Yafeh, 2005), engaged by the parent firm, could increase the risk of the subsidiary.

Using rich data sets of bond issuance on the US primary bond market and employing both linear and nonlinear econometric methods, I find evidence that the risk premium on bond issues is lower in subsidiaries than in comparable stand-alone firms. The findings also show that the reduction in subsidiary's bond yield spreads is affected by the financial health of its parent firm, which makes its implicit support in favor of the subsidiary ex ante credible. I explain this evidence in the presence of an implicit guarantee provided by the parent company to its subsidiaries (Luciano and Nicodano, 2014). In fact, the spreads of the parent bond are not adversely affected by the presence of an implicit guarantee. This asymmetry stems from the presence of limited liability of the parent company together with the non-contractual form of the implicit guarantee. Overall, the findings suggest that the benefits of limited liability are amplified for business groups.

The works makes significant contributions to several strands of literature. Existing research has extensively explored the relationship between

firm boundaries and firm value (Leland, 2007), but neglected the pricing of business groups in the U.S. In closely related studies, Chen et al. (2020) and (Kolasinski, 2009) investigate the use of subsidiary guaranteed debt to alleviate the financial constraints of the parent company. Therefore, my findings offer valuable insights into the realm of corporate financing within a parent-subsidary structure, by testing the benefits of coinsurance for groups as theorized in Luciano and Nicodano (2014).

This work also intersects with the broader literature concerning family firms and conglomerates in the US (Anderson et al. (2003); Kaplan and Zingales (1997)). While these studies argue that family firms are motivated to mitigate agency costs associated with debt, my research uncovers an alternative mechanism — a latent guarantee — that diminishes the cost of debt for subsidiary firms.

Notably, this perspective does not contradict earlier research that primarily scrutinized group membership's adverse impacts on shareholder value in the equity market (Claessens et al. (2000b);(Bae et al., 2002); Almeida et al. (2015)). In fact, this work shifts the focus of discussion from group efficiency in terms of equity performance to its influence on debt-related risk and value. Furthermore, it pioneers the identification of the economic value associated with an implicit guarantee on the public debt of non-financial firms.

Ultimately, it contributes to the empirical literature concerning the determinants of debt pricing ((Collin-Dufresne et al., 2001); (Fama and French, 1993)) by highlighting the significance of business group affiliation, and it provides a complementary approach, both theoretical and empirical, to explain the widespreadness of business groups around the world.

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Her research interests are centered around bond markets, with a particular emphasis on their interactions with the organizational structure of firms and the resulting impact on investors' wealth. She also delves into the regulatory framework of the banking sector, exploring its intersections with carbon emissions policies.

Michela Altieri's work has been published in prestigious finance journals, including the Journal of Financial and Quantitative Analysis, the Journal of Financial Markets, and European Financial Management.

Pricing The Public Debt of Business Groups: the U.S. Market - Michela Altieri

Corporate finance textbooks typically focus on standalone companies, but many firms operate within corporate groups. This study explores how business group affiliation influences the debt costs of parent and subsidiary firms in the U.S. corporate bond market. After an institutional overview in Chapter 1, Chapter 2 presents the theoretical framework on the impact of group membership on borrowing costs. Chapter 3 empirically examines the debt costs of parent and subsidiary firm in the U.S. bond market. The findings reveal that subsidiary firms benefit from lower debt costs due to implicit guarantees from their parent companies. This research is aimed at researchers and university professors studying bond markets and firm organizational structure.

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