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Capital structure and internationalization: The case of Portuguese industrial SMEs

Luís Pacheco

Universidade Portucalense, Department of Economics, Management and Computer Sciences, Room 201, Rua Dr. António Bernardino de Almeida, 541-619, 4200-072 Porto, Portugal

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ABSTRACT

The central objective of this paper is to empirically examine the relationship between the capital structure of Portuguese small and medium enterprises (SMEs) and their export performance. We focus our study in the Portuguese industrial firms due to their importance for the Portuguese economy and role played in the country's economic recovery amid the recessionary environment of the last decade. Though many empirical papers studied the determinant factors of capital structure, the interaction between export performance and capital structure has been much less studied. We intend to fill that gap, particularly for the case of Portugal and focusing on SMEs, where agency and asymmetric information problems could impact more on export performance, and not on large and listed corporations. Using panel data methodology, considering a sample of 3.164 firms and the period from 2011 to 2014, the paper extends the literature since analyzes the impact of the presence in foreign markets on short and long-term indebtedness. Distinguishing between different sectors of activity, the results suggest that profitability, asset tangibility, size, liquidity and presence in foreign markets are key factors affecting the capital structure of industrial SMEs. Albeit not validating the "upstream-downstream" hypothesis, we highlight the possible role played by agency costs and information asymmetries over debt during the internationalization process.

1. Introduction

Small and medium enterprises (SMEs) are commonly referred to as the backbone of any economy and one of the main problems reported by Portuguese SMEs is how to finance their activity, being largely dependent on banks (Antão and Bonfim, 2012). SMEs play a critical role in the global economy, as suppliers of employment and key agents for local and regional communities' well-being and the role of these firms ultimately depends on the flexibility they have to undertake entrepreneurial strategies and promote innovation.

The objective of this paper is to study the capital structure determinants of the Portuguese industrial SMEs and the way those determinants could influence their indebtedness levels. We extend the literature by analyzing the determinants of short and long-term indebtedness from a sample of firms, covering the period from 2011 to 2014. Also, our paper extends the literature since we distinguish between sectors of activity and examine the interactions between internationalization and debt structure. To our knowledge, this last question has never been studied for Portuguese firms, so our paper fills that gap.

E-mail address: luisp@upt.pt

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We conclude that the relation between internationalization and debt is not dependent on the destination of exports, meaning that it seems indifferent in terms of leverage whether firms are exporting to riskier or safer markets. Nevertheless, we conclude that export-oriented firms have less leverage, a negative relation possibly explained by agency theory and information asymmetries.

The next section presents an introduction to the main issues dealt in this paper and a literature review, ending with a discussion about the importance of industrial SMEs and its exports for the overall economy. Section three presents the hypothesis to be tested, the data and methodology to be used. The following section presents the empirical results, with the final section presenting a discussion of the results and some concluding remarks.

2. Literature review

Following the seminal paper from Durand (1952) about costs of capital for business, capital structure theory had its debut with a paper from Modigliani and Miller (1958) which developed a theoretical model concluding that a firm's capital structure is irrelevant to its value, asserting that a firm consists of a set of assets representing a certain capacity to generate returns, at a certain risk that determines the cost of capital. Since Modigliani and Miller's seminal work, capital structure decisions has been a broadly studied topic, however, given the diversity of results found in the literature, there is no consensus regarding an "optimal capital structure", being the Myers (1984, 1993) puzzle still actual (see Ardalan, 2016; for a recent review).

The *Trade-off theory* (Modigliani and Miller, 1963), the *Pecking Order* theory (Myers and Majluf, 1984; Myers, 1977, 1984) and the *Agency costs* theory (Jensen and Meckling, 1976), are the mainstream theories concerning capital structure decisions by firms. Though many studies have advanced our understanding of the determinants of a firm's capital structure, we think that there is a lack, at least in Portugal, of firm-level analysis linking export performance and practices in terms of capital structure. This paper contributes to that research using a panel data of 3.164 Portuguese industrial SMEs for the period 2011–2014, in order to study the impact of internationalization on the capital structure of Portuguese industrial SMEs.

With respect to Portuguese firms, there is an increasing number of papers using firm-level financial data to study the capital structure determinants (some examples are Antão and Bonfim, 2012; Bartholdy and Mateus, 2011; Bartholdy et al., 2015; Couto and Ferreira, 2010; Gama, 2000; Jorge and Armada, 2001; Matias et al., 2015; Nunes and Serrasqueiro, 2007; Pacheco and Tavares, 2015; Pastor and Gama, 2013; Serrasqueiro and Caetano, 2015; Serrasqueiro and Nunes, 2008, 2011, 2012; Serrasqueiro et al., 2014; Vieira and Novo, 2010). Nevertheless, to the best of our knowledge the Portuguese manufacturing firms have never been studied in terms of the association between capital structure and internationalization.

2.1. Capital structure and internationalization

Due to globalization and export growth, a robust export performance is increasingly a critical factor for a firm general performance and survival. For firms, entering the export market constitutes a high-risk decision that encompasses sunk costs, revenue volatility due to exchange rate movements, limited knowledge of external market conditions, local competition and cultural assimilation. There is broad evidence that international corporate activity is one of the determinants of capital structure (Burgman, 1996; Chen et al., 1997; Chkir and Cosset, 2001; Fatemi, 1988; Kwok and Reeb, 2000; Lee and Kwok, 1988; Low and Chen, 2004). According to the financial theory, multinational firms should have higher leverage compared to domestic firms due to their relatively larger size, stable cash flow generation and greater access to alternative and cheaper sources of financing, either domestic or abroad. Nevertheless, as explained below, most empirical results point in the opposite way.

Whether international diversification benefits a corporation and its shareholders has been the subject of considerable research. Lewellen (1971) argues that combining business with imperfectly correlated cash flows streams provides a coinsurance effect that creates more capacity for debt. While diversification may destroy value and profitability, its effect may be partially offset by an increased debt capacity and resulting tax shields. Cross border diversification appears to improve shareholder wealth (Eun et al., 1996), and the coinsurance effect may be a partial explanation for an increase in leverage. According to Agmon and Lessard (1977); Fatemi (1984), international diversification reduces the expected cost of bankruptcy and allows for increased debt capacity. So, risk is reduced by portfolio effects, since foreign cash flows are not perfectly correlated (Shapiro, 1978). However, Singh et al. (2003) provide evidence that while product diversified firms have higher degree of leverage relative to product focused firms, multinational corporations support a lower level of debt financing relative to domestic firms. So, firms that follow a strategy of dual diversification – product and market – tend to use more debt, a result that could be explained by the choice to use the increased debt capacity created through diversification. Nevertheless, in general, those authors conclude that multinational corporations will have lower leverage, financing their business more with equity rather than debt as the agency costs associated with the debt holder vs. stock holder conflict is likely to be a positive function of a firm's growth opportunities.

In the context of the agency theory, non-family managers have the incentive to assume riskier projects, including increasing the firm's presence in foreign markets (Anderson and Reeb, 2003). Since family controlled firms present higher risk aversion and concerns with survival and transmission to the next generation, the effect of the firm's ownership structure on internationalization strategies is a relevant topic (Zahra, 2003; Oesterle et al., 2013), though with mixed empirical evidences (Kontinen and Ojala, 2010; Sciascia et al., 2012).