Family Businesses and Debt Maturity Structure: Focusing on Family Involvement in Governance to Explain Heterogeneity

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Abstract

Understanding family firms' debt maturity structure is important because it plays a key role in making strategic decisions and mitigating agency conflicts. This study investigates the relationship between family involvement in governance and debt maturity structure in family firms by drawing on governance literature and insights from the socioemotional wealth perspective. Based on a sample of non-financial Italian public family firms, comprising 383 firm-year observations, we find differences in the proportion of long-term debt depending on variations in components of family involvement in governance. In particular, later-generation involvement on the board is associated with a lower proportion of long-term debt. Furthermore, family ownership positively moderates this relationship such that the proportion of long-term debt is higher with high family ownership. This study contributes to literature by adding further nuance to our understanding of the heterogeneity of family firms, by considering the relationship between variations in family involvement in governance and debt structure. Our study has practical implications that may inform investors about factors related to family involvement in governance, which are likely to influence debt maturity structure, and thus long-term strategies of family firms.

Keywords: *Debt Maturity; Family Business; Family Involvement; Family Governance; Socioemotional Wealth.*

1. Introduction

Although a growing stream of literature has focused on family firms' financing behavior, the debate on the relationship between family involvement in governance and capital structure decisions remains open (Diéguez-Soto & Lòpez-Delgado, 2019; Gonzàlez, Guzmàn, Pombo, & Trujillo, 2014; Schmid, 2013). Improving our understanding of family firms' financing policies is relevant, because they are connected to key strategic decisions such as internationalization (e.g., Arregle, Duran, Hitt, & van Essen, 2017), product diversification (e.g., Hafner, 2021), restructuring (e.g., Belling, Pidun, & Knyphausen-Aufseß, 2022), and mergers and acquisitions (e.g., Gómez-Mejía, Patel, & Zellweger, 2018). Family firms are characterized by a "peculiar financial logic" (Gallo, Tàpies, & Cappuyns, 2004, p. 315; Michiels & Molly, 2017). Typically, debt is the preferred financing option for this type of firm (Molly, Uhlaner, De Massis, & Laveren, 2019; Romano, Tanewski, & Smyrnios, 2001). When family firms seek external sources of finance, they prefer debt over equity, consistent with the pecking order theory, which is based on asymmetric information and signaling problems (Blanco-Mazagatos, Quevedo-Puente, & Castrillo, 2007; Myers & Majluf, 1984). In line with this, a review of the literature identified the largest proportion (40%) of articles on financing decisions in family firms as focusing on debt decisions (Michiels & Molly, 2017).

However, prior literature has two key limitations. First, it has generally focused on the choice of debt versus equity (e.g., Molly, Laveren, & Deloof, 2010; Molly, Laveren, & Jorissen 2012), while there is limited research on the topic of debt maturity structure (short- vs long-term debt) in family firms (e.g., Díaz-Díaz, García-Teruel, & Martínez-Solano, 2016; Michiels & Molly, 2017; Mishra & McConaughy, 1999). The choice between short- and long-term debt, i.e., the debt maturity decision, *"*is one of several financing choices that the firm must take simultaneously" (Barclay & Smith, 1995, p. 619) and represents a key aspect of corporate financial policy (Shyu & Lee, 2009). If a firm chooses to use debt, it must also define the maturity of that debt because "information asymmetry and transaction costs differ according to the debt maturity structure" (Michiels & Molly, 2017, p. 374). Furthermore, debt maturity structure plays a relevant role in mitigating agency conflicts (Datta,

Iskandar-Datta, & Rama, 2005; García-Teruel & Martínez-Solano, 2010; Ozkan, 2000) between shareholders and bondholders as well as between majority and minority shareholders (Croci, Doukas & Gonenc, 2011; Díaz-Díaz, et al. 2016; Villalonga & Amit, 2006). In fact, long-term debt may be preferred both by managers to avoid recurring monitoring by creditors (Datta et al., 2005) and by large shareholders who want to expropriate wealth from minority shareholders (Díaz-Díaz et al., 2016). Second, most prior studies on the use of debt have compared family to non-family firms, ignoring the heterogeneity among family firms and the fact that differences among family firms are potentially larger than differences between family and non-family firms (Chua, Chrisman, Steier & Rau, 2012; Michiels & Molly, 2017). Hence, the aim of this research is to contribute to literature on family firm financing (Michiels & Molly, 2017; Molly et al., 2019) and on family firm heterogeneity (Daspit, Chrisman, Sharma, Pearson, & Mahto, 2018), by addressing debt structure in family firms and its differences among such firms.

This study explores family firms' financing decisions, drawing on literature on family involvement in governance and the socioemotional wealth (SEW) perspective. Our approach offers three main advantages: first, it allows for a deeper understanding of family firms' debt financing structures because it considers the presence of family members in governance, seeing that the family's involvement shapes the vision of the firm, influencing its "goals, strategies, structure, and the manner in which each is formulated, designed, and implemented" (Chua, Chrisman, & Sharma, 1999, p. 22). This includes family firms' decisions to use leverage as source of financing, including the choice of long- vs short-term debt. Furthermore, patterns of governance through family involvement allow family members to forge the business in a manner that managers of nonfamily business are not able to (Chua et al., 1999; Lansberg, 1983). Second, it is important to deepen our understanding of the heterogeneity of family firms (Pittino, Visintin, Lenger, Sternad, 2016) and family involvement in governance includes components that are widely acknowledged to differ among family firms (Daspit et al., 2021). Thus, considering it as a key factor in financing decisions can allow us to better interpret the wide variety of outcomes (Carney, 2005; Klein, Astrachan, & Smyrnios, 2005). Finally, a SEW

perspective allows us to highlight the importance of the demand side of debt financing, reflecting the willingness of family businesses to borrow (Berrone, Cruz, & Gómez-Mejía, 2012; Gómez-Mejía, Haynes, Nunez-Nickel, Jacobson, & Moyano-Fuentes, 2007; Molly et al., 2019).

Using a hand-collected dataset of Italian non-financial public family firms comprising 383 firm-year observations, from 2014 through 2018, we analyze the relationship between family involvement in governance and proportion of long-term debt in family firms. In particular, we consider key governance components of family firms (Daspit, Chrisman, Ashton, & Evangelopoulos, 2021) and distinguish between family firm involvement through management (having a family member as CEO) and board configuration (family involvement and later-generation involvement on the board of directors). We also explore the moderating effect of family ownership as another key component of family involvement in governance (Daspit et al., 2018) on the main relationships. Our findings indicate that a family firm's debt structure is associated with the extent of family involvement in the governance of the business. We find there is a lower likelihood of having a higher proportion of long-term debt when there is later-generation involvement on the board. Moreover, family ownership positively moderates the relationship between family involvement in governance, considered as later-generation involvement on the board, and proportion of long-term debt.

This study contributes to family business literature in several ways. First, we add to previous research (e.g., Croci et al., 2011; Díaz-Díaz et al., 2016) that has considered comparisons between family and non-family firms with regard to debt structure. By considering differences among family firms, we add to the growing academic debate about family firms' heterogeneous behavior (Carr, Chrisman, Chua, & Steier, 2016; Daspit et al., 2018; Daspit et al., 2021; Lardon, Deloof, & Jorissen, 2017; Michiels & Molly, 2017), showing the importance of key involvement in governance components in decisions relating to debt structure. In particular, we add to our knowledge of differences in family businesses governance (Daspit et al., 2021) by demonstrating that family representation and generational involvement on the board are associated with differing financing decisions relating to debt structure. As such, we also fill a gap in the literature that has mostly focused

on the choice of debt versus equity and, instead, show the importance of key involvement in governance components in decisions relating to debt structure. Second, we contribute to the growing literature on debt maturity in family firms, which to date has mainly relied on agency, pecking order, and trade-off theories (Jain & Shao, 2015; Michiels & Molly, 2017; Molly et al., 2019), by drawing on insights from the SEW perspective. Our findings indicate that a demand side perspective, based on SEW arguments, helps shed light on debt capital structure in family businesses by pointing towards relevant factors affecting such structure. Third, we contribute to knowledge of debt structure in public family firms, seeing that capital structure decisions in public firms typically differ from those in private firms because of lower financial constraints and greater access to internal capital markets. Despite this, recent papers have mostly investigated debt structure within samples of private family firms (e.g., Díaz-Díaz et al., 2016; Molly et al., 2019) and listed and unlisted family firms (e.g., Amore, Minichilli, & Corbetta 2011). For example, Molly et al. (2019) studied private small and medium sized firms, while Amore et al. (2011) included both private and public firms, but the latter accounted for only 4.1% of their sample. Despite prior research indicates that public family firms are more likely to have long-term debt (Croci et al., 2011; Jain & Shao, 2015), "relatively little is known regarding factors that influence the choice of debt maturity structure subsequent to going public" (Jain & Shao, 2015, p. 454). Our study identifies such factors by considering family involvement in family firms' governance, showing that public family firms do not always prefer long-term debt, as indicated in prior research, but that this varies depending on involvement in key governance components.

Our study has practical implications that may inform investors about potential factors related to family involvement in governance, which are likely to influence debt maturity structure, and thus long-term strategies of family firms. In particular, our results offer novel insights that may help external capital providers in differentiating family firms (i.e. family firms with longer- versus shorter-debt policy) on the basis of their governance characteristics such as family representation and later-generational involvement of family members on the board. This study can also offer insights to family

business owners to help them understand the varying balance of economic and non-economic objectives depending on family involvement on the board and generational stage of the business.

2. Theoretical background and hypotheses

2.1 Family firms and capital structure theories

In general, family business literature on financing decisions has been based on capital structure theories deriving from the trade-off or pecking order approach (Frank & Goyal, 2003; Michiels & Molly, 2017; Titman & Wessels, 1988). This, in turn, is based on agency theory (Jensen & Meckling, 1976), which states that a divergence of interests occurs between owners and managers (principal/agent), between majority and minority shareholders (principal/principal), and between owners and creditors. Trade-off theory posits that firms will seek to maintain an optimal capital structure whereby the benefits connected to debt (Jensen, 1986), such as the reduction of free cash flow agency costs, offset costs associated with asymmetric information between shareholders and bondholders (Jensen & Meckling, 1976; Myers, 1977). Along with this, benefits connected to debt tax shields (Modigliani & Miller, 1958) and potential financial distress costs (Kraus & Lintzenberger, 1973) are taken into account in order to determine an optimum capital structure whereby the marginal benefit of debt equals the marginal cost.

The pecking order theory (Myers & Majluf, 1984) is based on the idea that asymmetric information occurs between managers and investors, meaning that managers know more about the true value of the firm than outside investors. Supposing that there are three sources of funding available to firms – retained earnings, debt, and equity – while retained earnings do not exhibit adverse selection problems, external finance has "an adverse selection risk premium, but that premium is large on equity" (Frank & Goyal, 2003, p. 220). Accordingly, from a manager's point of view, a new project will be financed by using internal funds, if possible. When the amount of retained earnings is insufficient and outside finance is required, firms will prefer to use debt financing, because of its lower information costs than equity, which will thus represent the last option.

In sum, traditional theoretical frameworks point toward a preference by family firms for debt financing. In fact debt remains the preferred external funding option for family firms (Croci, et al., 2011; Michiels & Molly, 2017; Romano et al., 2001). Although prior research has mostly paid attention to the overall debt rate, as opposed to the use of equity (Michiels & Molly, 2017), it is also important to understand the use of short- versus long-term debt because it affects family owners' control over business (Mishra & McConaughy, 1999). In general, family firms tend to prefer long-term debt because it is subject to less monitoring, provides greater flexibility, and reduces the risk of losing control (Jain & Shao, 2015; Mishra & McConaughy, 1999; Molly et al., 2019).

2.2 Family firms and debt maturity structure

Studies on debt maturity in general have often adopted an agency theory perspective (Jensen & Meckling, 1976). This is because debt maturity structure is strictly connected to the conflicts between shareholders and debtholders in leveraged public firms. In these firms, an overinvestment problem can emerge when managers, after issuing debt, invest in riskier projects than the firm's average ones (risk shifting problem) (Barnea, Haugen, & Senbet, 1980; Fluck, 1998; Galai & Masulis, 1976). Conversely, in the presence of risky debt, managers acting in shareholders' interests may incur in an underinvestment problem when the former avoid undertaking projects that would generate cash flow mostly to service debt, without generating other benefits for shareholders (Berkovitch & Kim, 1990; John & Nachman, 1985; Myers, 1977). Creditors protect themselves from firms' overinvestment and underinvestment by providing debt with shorter maturity because it allows them to renegotiate contract terms systematically (Barclay & Smith, 1995; Díaz-Díaz et al., 2016; Ozkan, 2000).

In family firms, such conflicts among shareholders, debtholders and managers may be mitigated if the controlling family is a large shareholder and has adequate incentives to monitor managers' activity (Anderson, Mansi, & Reeb 2003; Shleifer & Vishny, 1997). Monitoring action is also strengthened in a family firm because the family often appoints its own members to the top management or the board allowing it to observe managerial behaviors more closely (Gonzàlez, et al., 2014; Sciascia & Mazzola, 2008; Sirmon & Hitt, 2003). In addition, family firms are less likely to

engage in riskier projects, after contracting debt, because of their wealth concentration, which induces them to adopt conservative strategies (Carney, 2005; Donckels & Frohlich, 1991; Kim, Kim, & Lee, 2008). Therefore, creditors' concerns outlined above may be reduced when they are dealing with family firms.

From a family firm's perspective, in general prior research indicates a preference for long-term debt in public family firms. For instance, Mishra & McConaughy (1999) point out public family firms' aversion to short-term debt due to their reluctance to control risk and to greater refinancing risk. Croci et al. (2011) find that long-term debt is more affordable in public family firms due to their lower agency costs of debt. Jain and Shao (2015) point out that family businesses prefer longer debt maturity even after going public because it reduces the opportunity cost of management time and allows for greater flexibility to pursue investments.

Although an agency lens can highlight relevant dynamics within relationships between family owners and debtholders, it is important to complement it with other perspectives because we should consider "not ownership concentration per se, but rather who the owners are and their priorities and preferences" (Miller, Le Breton-Miller, & Lester, 2010, p. 202). Transgenerational control, social relationships, intermeshing of family and business, and other factors concerning the family's emotional endowment have bearing on (demand-side) preferences relative to debt maturity structure. Thus, in our study we draw on a SEW logic (Berrone et al., 2012; Gómez-Mejía et al., 2007; Kotlar, Signori, De Massis, & Vismara, 2018) to complement prior insights on family firms' debt maturity, considering family firms' non-financial endowment relating to debt structure decisions.

2.3 Relationship between family involvement in governance and debt maturity structure: A SEW perspective

Family involvement in governance is a key factor explaining heterogeneity among family firms (Carney, 2005; Chua, Chrisman, Steier & Rau., 2012). Differences in governance help explain a firm's vision (Daspit et al., 2018) as well as several key decisions such as internationalization (Calabrò, Campopiano, Basco, & Pukall, 2017), knowledge sharing (e.g., Madison, Daspit, Turner,

& Kellermanns, 2018), and, as in our study, debt structure. Because of the influence of family involvement on firm goals, behaviors and resources (Sharma, Chrisman & Chua, 1997), family firms' debt financing is influenced by family involvement in governance, through involvement in management (e.g., Díaz-Díaz et al., 2016; Molly et al., 2012), in ownership (e.g., Croci et al., 2011; Lin et al., 2011), as well as in the board of directors (e.g., Comino-Jurado, Sánchez-Andújar, & Parrado-Martínez, 2021; Li & Zhang, 2018; Molly et al., 2019). In fact, "differences in the management, ownership, and governance structure can influence the relationship and information asymmetries between shareholders and bondholders" (Michiels and Molly, 2017, p. 374). However, except a limited number of studies (e.g., Molly et al., 2019), prior research has mostly explored the relationship between family involvement and debt financing decisions by using an agency lens (Jensen & Meckling, 1976). Ignoring a demand perspective and in particular family firms' affective needs may explain some of the inconsistent results emerging from previous studies (e.g.: Díaz-Díaz et al., 2016; Shyu & Lee, 2009).

The SEW perspective is an extension of the behavioral agency theory (Gómez-Mejía, Welbourne, & Wiseman, 2000; Wiseman & Gómez-Mejía, 1998), which in turn is a derivation of prospect theory (Kahneman & Tversky, 1979), according to which firms make choices depending on the reference point of the firm's dominant principals who try and preserve their SEW or affective endowment. Such endowment includes dimensions relating to the family's control and influence, the identification of family members with the firm, the binding social ties among them, the emotional attachment of family members to the firm, and the renewal of family bonds through succession (Berrone et al., 2012). Accordingly, key strategic decisions are based on the desire to preserve or enhance such endowment, which family members consider as a reference point for potential gains or losses (Gómez-Mejía, Cruz, Berrone, & De Castro, 2011; Kraiczy, Hack, & Kellermanns., 2015). Sense of dynasty, family reputation, and fear of losing control are some of the factors that, on the one hand, represent the affective endowment of family firms and, on the other hand, influence their relationship with external stakeholders, including creditors (Molly et al., 2019).

The SEW perspective has recently been used by scholars to analyze family firms' financial decisions. For instance, family firms have been found to be reluctant to cede ownership to external financiers, such as venture capitalists (e.g., Martí, Menéndez-Requejo, & Rottke, 2013) or institutional investors (e.g., Fernando, Schneible, & Suh, 2014) in order to preserve their SEW stock. This is because external equity providers confer financial and non-financial resources (Tappeiner, Howorth, Achleitner, & Schraml, 2013), but at the same time they may exert a monitoring activity that would undermine the family's power, a main dimension of affective endowment (Gómez-Mejía et al., 2011). When family firms decide to list their stocks, they may be willing to choose higher IPO underpricing than non-family firms (Leitterstorf & Rau, 2014), in order to retain control of the family firm and preserve their SEW (Michiels & Molly, 2017). Kotlar et al. (2018) also shed light on family firms' preference with regard to IPO pricing, clarifying the trade-off between financial and socioemotional wealth.

The SEW model can also be useful to contribute to our understanding of debt maturity structure in family firms from a governance perspective. We maintain that, when socioemotional considerations prevail over economic ones, family firms will have longer-term debt maturity because this allows them to maintain control over strategic decisions (Berrone et al., 2012; Chua et al., 1999), retain a long-term perspective, and ultimately preserve the firm's continuity. Long-term debt allows family firms to avoid periodic monitoring by debtors connected to credit renewals (Datta et al., 2005; Rajan & Winton, 1995) and as such this form of financing is perceived as being less restricting (Molly et al., 2019) and avoids the risk of loss of control (Schmid, 2013). Indeed, family firms with high SEW are concerned with transgenerational sustainability (Zellweger, Kellermanns, Chrisman, & Chua, 2012). Family members do not typically consider their firm as a business asset that is easy to liquidate (Berrone et al., 2012; Casson, 1999). Instead, it represents the family's heritage and tradition (Cennamo, Berrone, Cruz & Gómez-Mejía, 2012). Family owners often strongly perceive a sense of their dynasty (Zellweger et al., 2012) and therefore have goals of long-term competitiveness in order to increase their descendants' wealth (Berrone et al., 2010). When SEW is high, family principals are

encouraged to undertake far-sighted investments, such as those in capital investments in plant, equipment, and information technology (Kang, 2000; Miller & Le-Breton-Miller, 2006). This long-term horizon stimulates the family to concentrate on maximization of firm value instead of shareholder value, generating fewer relevant conflicts between shareholders and bondholders (Anderson, Mansi, & Reeb, 2003; Filatotchev & Mickiewicz, 2001). In contrast, short-term debt may lead to severe crises (Brunnermeier, 2009; Gourinchas & Obstfeld, 2012), as well as early firm closure and liquidation (Diamond, 1991; Gertner & Scharfstein, 1991). Family's involvement and long-term horizon allow family firms to obtain longer-term debt (Díaz-Díaz et al., 2016), consistently with their willingness to undertake farsighted investments. Finally, the desire to build an enduring legacy pushes family firms to appear as credible partners to their debtholders by entering in implicit contracts in order to develop long-term financial relationships that are essential for undertaking firm-specific investments (Andres, 2008; Díaz-Díaz et al., 2016; Williamson, 1979).

In contrast, when socioemotional concerns are less important, in other words when SEW is low, family firms will have shorter-term debt maturity because they are less concerned with maintaining control and more willing to adopt risky strategies if they perceive that they may be compensated commensurately in economic terms. Short-term borrowing is characterized by stricter covenants, higher refinancing risk and greater probability of bankruptcy risk, because it can't be 'locked in' and has to be repaid in full (Mishra & McConaughy, 1999), as well as greater monitoring because it comes up for renewal more often (Datta et al., 2005; Rajan & Winton, 1995). However, at the same time, it can offer other advantages such as being cheaper thanks to interest savings, offering greater financial flexibility, and improving bank relationships due to the frequency of contact and renegotiation of the debt (Broner, Lorenzoni, & Schmukler, 2013; Jun & Jen, 2003; Krishnamurthy & Vissing-Jorgensen, 2015; Petersen & Rajan, 1994). Short-term debt also allows borrowers to signal that they possess positive private information about future payoffs (Diamond 1991; Flannery 1986). Empirical findings show that faster returns on investments are associated with a shorter payment structure, suggesting a

particular relationship between debt maturity structure and the nature of the firm's assets (Caprio & Demirguc-Kunt, 1998; Hart & Moore, 1995).

2.3 Hypotheses

Boards of directors are key governance bodies (Daspit et al., 2021) through which family members exert control over strategic decisions (Schulze, Lubatkin, & Dino, 2003). Boards are considered "the ultimate legal authority with respect to decision-making in the firm" (Adams & Ferreira, 2007, p. 218) and a firm's financing policy is established at the board level (Molly et al., 2019), especially in public firms. SEW considerations can shape the board composition of a family firm (Le Breton-Miller & Miller, 2013). In family firms, family principals are likely to consider the board as a means to influence top executives in order to achieve the family's non-economic goals. Specifically, the board may be seen as a "vehicle… to justify strategic decisions that cater to the family's socioemotional wealth preservation agenda" (Gómez-Mejía et al., 2011, p. 676). We expect family firms with high family involvement in governance, measured through greater family representation on the board (Calabrò, Minichilli, Amore, & Brogi, 2018), to be more likely to have a greater proportion of long-term debt as this allows them to preserve their SEW endowment. Family firms prefer long-term debt for various reasons: families are reluctant to being controlled by lenders through short-term debt and prefer to avoid refinancing risk, which is higher with short-term debt as it has to be renegotiated more often (Mishra & McConaughy, 1999); long-term debt also reduces the opportunity cost of management time and allows for greater flexibility to pursue investments (Jain & Shao, 2015). Hence, our first hypothesis is as follows:

Hypothesis 1: *Family involvement on the board is positively associated with the proportion of long-term debt.*

We now move on to considering family involvement in governance through having a family member as CEO. Having a family member as CEO allows the family to exercise its authority directly over strategic decisions in the family business (Berrone et al., 2012), including those about debt structure. When top executives are family members, the family firm's identity becomes stronger

(Zellweger, Eddlestone, & Kellermanns, 2010). This causes family members to become more strongly tied to organizational identity and, in turn, identifying with the family business is a key dimension of the SEW endowment, because greater identification between family and business leads family members to perceive the firm as an extension of their family (Berrone et al., 2012). Consequently, they will be more careful about the consequences of their actions on the family's image and reputation (Binz, Hair, Pieper, & Baldauf, 2013). When there is a family CEO, family members are likely to avoid decisions that may harm their SEW and generate an affective endowment loss, because family CEOs are more likely to follow the preferences of the family aimed at increasing the family's non-economic utilities and/or preventing losses of SEW (Berrone et al., 2010). In fact, family CEOs have a shared interest with the rest of the family in preserving SEW because of their common family identity (Pazzaglia, Mengoli, & Sapienza, 2013). In addition, family CEOs generally have longer tenures in family businesses than outside CEOs (Le Breton-Miller, Miller, & Steier, 2004; Westhead, Cowling, & Howorth, 2001) and they are more likely to develop a long-term focus, making decisions aimed at guaranteeing the longevity of the business (Le Breton-Miller & Miller, 2006; Zachary, McKenny, Short, & Payne, 2011), another key dimension of SEW (Berrone et al., 2012). These reflections point towards family firms with high family involvement in governance, considered as having a family CEO, as preferring long-term debt maturity. Because of greater identification between family and business, family CEOs are more likely to exercise their control by increasing the family's non-economic utilities and preventing losses of SEW. Given that short-term debt implies that the business is monitored more frequently by lenders, family CEOs will prefer long-term debt in order to avoid SEW losses connected to lower managerial discretion. Therefore, we propose the following hypothesis:

Hypothesis 2: *The presence of a family CEO is positively associated with the proportion of long-term debt.*

Finally, we consider a third aspect of the family's involvement in governance, based on the generation that is involved on the board. The family firm generational stage impacts how family

involvement affects a firm (Daspit et al., 2018) and, at the same time, generational involvement may affect corporate debt in family businesses (e.g., Comino-Jurado et al., 2021; Molly et al., 2010; Molly, Laveren, & Jorissen, 2012). The literature indicates that the identification with the family firm is very high for the founder, but it gradually weakens, as the years go by (Dyer & Whetten, 2006) and newer generations take over (Sciascia, Mazzola, & Kellermanns, 2014). At later generational stages, SEW weakens (Berrone et al., 2012), because family members become less emotionally attached to the family firm (Gómez-Mejía et al., 2007; Gu, Lu, & Chung, 2019). Hence, the affective attachment of family members becomes less relevant compared to the achieving financial performance and family members may be more willing to undertake risky investments (González et al., 2014; Schulze et al., 2003), which are typically financed through shorter-term debt (Díaz-Díaz et al., 2016; Myers, 1977). The identity of a family firm's owner is inextricably tied to the organization that usually carries the family's name (Berrone et al., 2012, p. 262). Therefore, beyond financial consequences, the failure of an investment would be emotionally devastating for family members, because they would consider the damage in terms of the family's reputation, image and identity (De Massis, Kotlar, Mazzola, Minola, & Sciascia, 2014; Dyer & Whetten, 2006; Gómez-Mejía et al., 2007; Kepner, 1983). However, later generations perceive the emotional endowment to a lesser extent than the founder (Arrondo-García, Fernández-Méndez, & Menéndez-Requejo, 2016; Gómez-Mejía et al., 2007; Lubatkin, Schulze, Ling, & Dino, 2005). Thus, a de-emphasis on SEW may stimulate the family members' propensity to adopt risky investments with a shorter time frame perspective.

As the family grows over the years, family members from later generations may also develop the business in new directions, as they are interested in fulfilling their own needs and agendas, generating diluted family ties (Ensley & Person, 2005; Sciascia et al., 2014). In addition, as the family grows, later generations have weaker affective bonds with their original family and different family branches may see themselves as nurturers of their own branch, weakening the shared family identity (Blanco-Mazagatos et al., 2007; Drago, Ginesti, Pongelli & Sciascia, 2018). Therefore, across subsequent generations, the SEW endowment and the desire to preserve it become less central

(Arrondo-Garcìa et al. 2016; Gómez-Mejía et al., 2007; Lubatkin et al., 2005). These considerations point towards family firms with later-generation involvement on the board as having less long-term debt because they are less emotionally attached to the family firm and perceive the emotional endowment (and any potential emotional loss) to a lesser extent than the founder. Thus they may be more willing to undertake risky investment decisions, which are typically financed through shorter-term debt. Therefore, we propose our third hypothesis as follows:

Hypothesis 3: *Later-generation involvement on the board is negatively associated with the proportion of long-term debt.*

We now move on to the moderating effect of family ownership, seeing that it is a key dimension of family involvement in governance (Daspit et al., 2018) that significantly affects a firm's strategic decisions (Chrisman, Chua, Pearson, & Barnett, 2012; Zahra, 2003; Zahra & Pearce, 1989). At the same time, ownership in the hands of family members allows the family to strengthen the control dimension of SEW (Berrone et al., 2012) as it increases the identification and emotional links between family members and the firm (French & Rosenstein, 1984). Family ownership is the differentiating factor from non-family firms and is at the basis of the pecking order that characterizes their access to sources of financing (Blanco-Mazagatos et al., 2007). As the family's stock ownership increases, the family has greater control over the firm's strategic decision making (Anderson & Reeb, 2003). As such we expect family ownership to affect the main relationships that we have hypothesized.

Our first main relationship relates to high family involvement in governance through greater family involvement on the board. We expect the positive relationship between family involvement on the board and proportion of long-term debt to be enhanced when there is higher family ownership, because family members with a strong ownership position are able to exercise authority and exert formal and informal control (Berrone et al., 2012), including via the board of directors. Therefore, the family is likely "to see the board as a tool to reinforce their control and to pressure top executives to pursue the family's objectives" (Gómez-Mejía et al., 2011, p. 676), specifically relating to SEW preservation, and limiting the role of outside directors (Michiels & Molly, 2017). Thus, we expect

the relationship between family firm involvement on the board and proportion of long-term debt to be stronger when there is higher family ownership.

Our second main relationship relates to family firm involvement in governance, by having a family member as CEO of the firm. We expect the positive relationship between family involvement in governance (family CEO) and proportion of long-term debt to be enhanced when there is higher family ownership, because family CEOs acting on behalf of shareholders with significant shareholdings (in this case the family) will have even greater power and control, including over the board of directors (Finkelstein, 1992). This is referred to as ownership power, a type of power that grows based on the percentage of ownership held by the CEO and their family, seeing that the family is the basis for these executives' support (Finkelstein, 1992). Thus, we expect the relationship between having a family CEO and proportion of long-term debt to be stronger when there is higher family ownership.

Finally, our third main relationship relates to family involvement in governance as later-generation involvement on the board. As illustrated above, later generations tend to have lower SEW, which we hypothesized is associated with shorter debt maturity because family attachment to the firm weakens. If there is greater family ownership, on average, each family member will have a greater average shareholding (Gómez-Mejía et al., 2007), which should counter the reduction in their desire to protect the SEW endowment. Therefore, we expect that the negative relationship between later-generation involvement and proportion of long-term debt will be mitigated when there is higher family ownership, because each individual in the family will hold a greater ownership stake, prompting them to take into account emotional considerations in their choice of debt maturity (Gómez-Mejía et al., 2007). Therefore:

Hypothesis 4a: *The extent of family ownership moderates the positive relationship between family involvement on the board and the proportion of long-term debt such that the proportion of long-term debt will be higher with high family ownership.*

Hypothesis 4b*: The extent of family ownership moderates the positive relationship between family CEO and the proportion of long-term debt such that the proportion of long-term debt will be higher with high family ownership.*

Hypothesis 4c*: The extent of family ownership moderates the negative relationship between later-generation involvement on the board and long-term debt such that the proportion of long-term debt will be higher with high family ownership.*

Our research model is illustrated in Figure 1.

[Insert Figure 1]

3. Methodology

3.1. Data and sample selection

To create our dataset, we collected governance data from several sources: the database of the Italian Security Stock Exchange Commission (CONSOB), annual and governance reports, as well as company websites. In order to establish family generation and presence of family CEO and family directors we searched for relevant information as well as kinship ties (same last name and/or indication of family ties) by using company websites and the Lexis/Nexis database. Finally, financial and accounting data were extracted from *Bureau van Dijk*'s AIDA database.

Relying on prior empirical studies of Italian public family firms, we identified a firm as a family firm if the family holds at least 50% of the outstanding shares and one or more of its members are on the board of directors (Drago et al., 2018). This level of ownership is higher than that used in US studies, which typically rely on a 20% or 25% threshold (e.g. Anderson & Reeb, 2003), because of the peculiarities of the Italian context, presenting higher ownership concentration (Bianco & Casavola, 1999; La Porta, Lòpez-de-Silanes, Shleifer, & Vishny, 1998).

This criterion led to an initial sample of 79 non-financial Italian family firms that were listed on the Italian Stock Exchange from 2014 to 2018 (395 firm-year observations). We removed 12 firm-year observations with missing governance and/or accounting data needed for our analyses. This

process generated a final sample of 79 unique family public firms and 383 firm-year observations. Table 1 provides the composition of our final sample by year and industry sector.

[Insert Table 1]

3.2. Variables

Dependent variable. We measured debt maturity (DEB_MAT) as the proportion of long-term debt (i.e. the debt with a time to maturity exceeding one year) to the book value of total debt (Arslan & Karan, 2006; De Meyere, Vander Bauwhede, & Van Cauwenberge, 2018; Díaz-Díaz et al., 2016; Li & Zhang, 2019). We note that debt maturity may refer to financial or non-financial debt. Financial debt refers to financial resources obtained mainly from the financial industry, while non-financial debt includes mainly commercial loans.

Independent variables. We measured family involvement in governance through three variables: 1) family involvement on the board; 2) the presence of a family CEO; and 3) later-generation involvement on the board (Baixauli-Soler, Belda-Ruiz, & Sánchez-Marín, 2021; Drago et al., 2018). We measured family involvement on the board (FOB) as the percentage of family members out of the total number of board members (Molly et al., 2019). We measured family leadership (F_LEAD), i.e. presence of a family CEO, as a dummy variable that equals 1 (one) if a family member serves as the firm's CEO and 0 (zero) otherwise (Block & Wagner, 2014; Kowalewski, Talavera, & Stetsyuk, 2010). Finally, we measured later-generation involvement on the board of directors (F_GEN) as the latest family generation involved in the board of directors (Drago et al., 2018; Sciascia et al., 2014).[1] We measured the moderator variable, family ownership (F_OWN), as the percentage of shares held by family members.

Control variables. We controlled for firm-level and corporate governance characteristics that may influence debt maturity structure. In line with extant literature, we controlled for firm size (SIZE) since it influences the level of debt maturity (De Meyere et al., 2018). Similarly, we controlled for

[1] When multiple generations simultaneously serve on the board of directors, F_GEN was coded as the number of the latest generation of family members on the board.

leverage (LEV), profitability (PROFIT), as well as the proportion of tangible assets out of total assets (TANG) (Arslan & Karan, 2006; De Meyere et al., 2018). We also included sales growth (GROWTH), corporate tax rate (GAAP_ETR) and firm age (F_AGE), since these variables are closely related to debt maturity (Comino-et al., 2021; Díaz-Díaz et al., 2016; Molly et al., 2019).

With regard to corporate governance variables, we controlled for board size (B_SIZE), CEO duality (CEO_DUA) and board independence (IND_DIR) because these characteristics affect the oversight of managerial activities and may impact corporate debt decisions (Aktas, Andreou, Karasamani, & Philip, 2019; Anderson, Mansi, & Reeb, 2004; Li & Zhang, 2019). Finally, we included industry and years dummy variables. Industry dummy variables are based on the classification derived from the AIDA database, which classifies all public firms into three main industries (i.e. manufacturing, services, and wholesale).

All the variables are calculated on a yearly basis and are described at the bottom of Table 2.

3.3. Empirical model

We developed our empirical strategy by investigating which model may be more appropriate with panel data. Therefore, we performed the Hausman test and the Breusch-Pagan Lagrange Multiplier test (Drago et al., 2018; Ferramosca & Allegrini, 2018) and found that a random effect model (RE) was preferable. Thus, we tested the relationship among the variables representing family involvement in governance and proportion of long-term debt by using a RE regression model. In particular, we explored the relationship between our family involvement in governance variables (family involvement on the board, family CEO, and later-generation involvement) and proportion of long-term debt, as well as the interaction effect of family ownership on these relationships.

4. Findings

Table 2 reports descriptive statistics and correlations for the variables used in the main regression analysis. We observe that firms in our sample had, on average, 32% of long-term debt out of their total debt (DEB_MAT). Moreover, the average percentage of family members on the board of directors (FOB) was around 29%, while CEOs from the owning family (F_LEAD) were present in

62% of total observations. Data related to later-generation involvement (F_GEN) show that most family firms had the second generation of family members on the board, with companies in our sample ranging between having only the first and up to the fourth generation on the board. The average percentage of shares held by family members (F_OWN) was about 63%, reflecting the relatively high ownership concentration in our sample of Italian public firms.

Table 2 also reports correlations for all the variables used in our main regression models. F_LEAD and FOB are significantly and negatively associated with DEBT_MAT. With regard to control variables, SIZE and LEV are in line with expectations derived from prior literature (Díaz-Díaz et al., 2016). We also computed a test for multicollinearity through the estimation of variance inflation factor (VIF) coefficients for all the independent and control variables as well as the moderator variable. The results of these tests were always below the threshold of 10 (Kennedy, 2008), with the maximum VIF being 2.61.

[Insert Table 2]

In Table 3, we report the regression results. In Model (1) we show the results obtained including control variables only. We find that only the variable LEV is positively and significantly associated with DEBT_MAT (Arslan & Karan, 2006). In Models (2), (3), and (4) we add the three main independent variables related to FOB, F_LEAD, and F_GEN. The coefficient of the variable FOB is positive but only marginally significant in Model (4) ($p<0.1$), indicating that family involvement on the board (FOB) tends to be associated with greater proportion of long-term debt. Therefore, we find marginal support for Hypothesis 1. Contrary to our expectations, we find support for family CEO (F_LEAD) being negatively associated with proportion of long-term debt (DEBT_MAT) in Model (4) ($p<0.1$), although this is only marginally significant. This suggests that family firms tend to have a lower proportion of long-term debt when they have a family CEO (rather than higher as hypothesized). Therefore Hypothesis 2 is not supported. Finally, we find that later-generation involvement (F_GEN) is significantly and negatively associated with proportion of long-term debt (DEBT_MAT), in Model (4) ($p<0.05$), therefore Hypothesis 3 is supported. Then, we gradually

include family ownership (F_OWN) as a moderator variable of the main relationships between family firm involvement in governance variables and proportion of long-term debt (DEBT_MAT) in Models (5) through (9). Model (6) includes the interaction between FOB and F_OWN, which is not statistically significant, therefore Hypothesis 4a is not supported. Model (7) includes the interaction between F_LEAD and F_OWN and is not statistically significant, therefore Hypothesis 4b is not supported. In Model (8) the interaction between F_GEN and F_OWN is positive and statistically significant ($p<0.001$), therefore Hypothesis 4c is supported. Finally, Model (9) includes all three interactions terms and confirms the significant interaction of F_OWN on the main relationship between F_GEN and proportion of long-term debt.

[Insert Table 3]

To better illustrate the moderating effect of family ownership, we plot the significant interaction in Fig. 2 (using the online tool available at: http://www.jeremydawson.co.uk/slopes.htm). It can be observed that low family ownership is associated with a negative relationship between later-generation involvement in governance and proportion of long-term debt, whilst high family ownership flips the relationship, with later-generation involvement being associated with a greater proportion of long-term debt.

[Insert Figure 2]

4.1. Robustness analyses

To increase the robustness of our analysis, we performed several additional tests. First, because one could argue that corporate decisions about leverage and debt maturity are complementary and taken concurrently, we re-estimated Model (8) by excluding the variable LEV and the results (untabulated) obtained continue to be similar to those reported in Table 3. Second, we obtained similar results (untabulated) to those reported in Table 3 when we re-estimated regression models by measuring the variable PROFIT as net operating income divided by total assets. Third, we controlled for the sensitivity of our results to potential effect of outliers. We re-estimated Model (9) by winsorizing the variable DEBT_MAT at 1% and 99%, and the results obtained (untabulated) confirm

the significant results in Table 3. Fourth, literature suggests that variations in the definition of family firms may have an impact on the empirical results (Mazzi, 2011). Hence, we re-estimated Models (5) and (9) employing a less strict definition of family firm that identifies a family firm if the family holds at least 25% and one or more of its members is on the board of directors (Kowalewski et al., 2010), giving us a sample of 93 unique firms (431 firm-year observations). The results reported in Table 4 show a marginally significant relationship between FOB and proportion of long-term debt as well as a significant relationship between F_GEN and proportion of long-term debt in Model (10), although the interaction term F_GENxF_OWN only shows a marginal level of significance in Model (11). We attribute this to having firms with lower levels of family ownership in the sample (using 25% rather than 50% threshold) and therefore family ownership having a weaker effect.

[Insert Table 4]

Fifth, we addressed potential endogeneity concerns by using lagged values for our family involvement in governance variables (Coles, Daniel, & Naveen, 2008; McKnight & Weir, 2009). Hence, we re-estimated Models (5) and (9) and the results of this robustness test are reported in Table 5. The results confirm the negative and significant relationship between F_GEN and proportion of long-term debt in Model (13) although the interaction term F_GENxF_OWN is only marginally significant (we suspect because of the smaller sample size).

[Insert Table 5]

Sixth, since our dependent variable is left censored, we re-estimated Models (5) and (9) by using a Tobit model. The estimation results, reported in Table 6, generally confirm the main relationships reported in Table 3, although the impact of FOB is not significant in Model (15).

[Insert Table 6]

Finally, further analysis of our models suggests that the largest change in the marginal effect of family ownership occurs up to around the mean value of family ownership, suggesting that greater family ownership has an effect on the proportion of long-term debt but only up to a certain point.

5. Discussion and concluding remarks

This study contributes to knowledge on debt maturity in public family firms by investigating the role played by family involvement in governance components, taking into account a SEW perspective. Our findings provide a more nuanced understanding of debt structure by looking beyond differences between family and non-family firms and, instead, considering the heterogeneity of family firms through governance and SEW perspectives. Furthermore, we study public firms, thus adding to similar studies that have focused on debt structure in private firms (Molly et al., 2019). In doing so we reframe debt structure choices by going beyond agency theory considerations, seeing that information asymmetry is less prevalent in public firms (Díaz-Díaz et al., 2016), and taking into account, instead, controlling families' desire to have greater influence and flexibility through reduced monitoring by creditors, limiting refinancing risk and the risk of losing control (Jain & Shao, 2015; Mishra & McConaughy, 1999; Molly et al., 2019), even after going public. Our findings remain similar in most robustness tests, where we exclude leverage, measure profit with an alternative measure, exclude outliers, use a less strict definition of family firm, use lagged values for variables measuring family involvement in governance, and use a Tobit model.

5.1. Discussion of findings

Our study builds on prior work showing that public family firms are more likely to have long-term debt (Croci et al., 2011; Jain & Shao, 2015), by highlighting that this is not the case across the board but that it depends on differences in factors relating to family involvement in governance. Specifically, our main finding indicates that there is lower long-term debt in firms that have later generations on the board. This is supported by a SEW perspective, according to which in these firms the strong identification between family and firm at the founding stage becomes progressively weaker as the generational stage increases (Gòmez-Mejìa et al., 2007; Van Gils, Voordeckers, & Van den Heuvel, 2004). This suggests that, with later generations, family firms are less risk averse and less likely to adopt conservative investment policies (Croci et al., 2011), allowing them to focus on growth opportunities through short-term debt. Further, we offer insight into the moderating role of another aspect of family involvement in governance, namely family ownership. Prior studies have noted that

family ownership is a key component of family involvement in governance (Daspit et al., 2018) and plays a key role in terms of the family wanting to preserve its SEW through its debt maturity choices (Zellweger et al., 2012). Although later generations tend to place less importance on nonfinancial endowment than the founding generation and are more driven by financial goals, our study shows that family ownership effectively counterbalances the de-emphasis on SEW, producing a positive effect on the main relationship. Our sample contains family firms with a relatively high family ownership and this may explain why even higher levels of family ownership are able to counter-act the effect of having later generations on the board, avoiding risky business decisions that may jeopardize the family's SEW (Gómez-Mejía et al., 2007) and instead allowing the family to reduce refinancing risk and creditor monitoring through having more long-term debt (Mishra and McConaughy, 1999; Molly et al., 2019; Shyu & Lee, 2009). Interestingly, this appears to be the case only up to a certain point, i.e. at around 65% of family ownership. As a possible explanation, we can speculate that, at later generational stages and beyond 65% family ownership, the family's ownership – although high overall – becomes quite fragmented and thus less effective.

In line with prior research, we find some support for greater family involvement on the board tending to be associated with the proportion of long-term debt. This finding makes sense in light of the family firm's financing policy usually being decided at the board level (Molly et al., 2019). Indeed, greater family involvement on the board is an indicator of higher SEW endowment, which family members will want to preserve and enhance (Gómez-Mejía et al., 2011) preferring a greater proportion of long-term debt, which allows the family to maintain control over strategic decisions (Berrone et al., 2012; Chua et al., 1999), reduce refinancing risk and satisfy the need to maintain higher liquidity (Jain & Shao, 2015), retain a long-term perspective and ultimately preserve the firm's SEW and continuity (Berrone et al., 2010). Finally, regarding the relationship between family firm involvement in governance through management and proportion of long-term debt, our arguments find partial support for a negative relationship, which is contrary to our expectations. Although we do not find strong support for this relationship, the finding suggests that decisions regarding long-

term debt tend to be taken regardless of the family status of the CEO. This could be explained by our sample, seeing that Italian law requires public firms to have independent directors and they are seen as an important control mechanism (Cucari, Esposito de Falco, & Orlando, 2018), limiting the CEO's decision power regarding debt-related choices.

Overall, these findings indicate that, from the SEW perspective, the family's involvement in some governance components and SEW considerations play a role in decisions regarding how much long-term debt to take on. Specifically, we demonstrate that we need to distinguish among involvement in governance components in order to have a more subtle understanding of this phenomenon.

5.2. Theoretical and practical implications

Our study enhances the debate on family firm heterogeneity by adding further nuance to the literature and distinguishing among components of family involvement in governance. This allows us to move beyond studying differences between family and non-family firms with regard to their debt structure (Croci et al., 2011; Díaz-Díaz et al., 2016) and shed further light on the debate about the heterogeneity of family businesses (Daspit et al., 2021). Specifically, by employing a SEW perspective, we offer greater nuance into our knowledge of long-term debt in public firms and show that later-generation involvement is associated with lower proportion of long-term debt, although with greater family ownership long-term debt is higher.

A second contribution is to add to the growing demand-side view of debt maturity in family firms, complementing the still dominating supply side view, based on agency, pecking order, and trade-off theories (Jain & Shao, 2015; Michiels & Molly, 2017; Molly et al., 2019). Our findings add to family firm literature by indicating that a demand side perspective helps us shed light on capital structure in family businesses and pointing towards relevant factors affecting such structure. We believe that such demand side perspective does not substitute or prevail over a supply side perspective, rather these views complement each other and should be taken into account in order to understand debt maturity structure more fully in family firms.

Our final contribution is to shed light on differences in debt structure in public family firms, depending on key components of family involvement in governance, answering calls to understand more fully the factors that may influence debt maturity in family firms after going public (Jain & Shao, 2015). Our study identifies later-generation involvement and family ownership as being some of these factors, thereby adding further refinement to the family involvement in governance perspective.

This work has practical implications that can be beneficial for investors, managers, stakeholders and policymakers. A greater understanding of the relationship between family involvement in governance and debt maturity structure may help external providers of finance to identify some potential constraints of long-term firm's growth. Moreover, lenders and creditors should not consider family businesses as an indistinct universe but should distinguish among them with regard to their level of family involvement in governance. Hence, creditors and non-family shareholders may strengthen the way they protect themselves, when these factors may lead to a higher financing risk, by using stricter contracts or pushing up the cost of financing.

5.3. Limitations and future research directions

This paper is not free from limitations. First, we measure components of family involvement in governance separately and future research could consider whether such different governance components may affect each other (Chua, Chrisman, & De Massis, 2015). Extending this, future studies could also consider flow aspects of family involvement in governance components, complementing the stock aspects on which we focus, and their relationship with family centered non-economic goals (Chua et al., 2015). Second, although we draw on the SEW perspective, we do not measure SEW directly. Future research could consider doing so, as well as include other relevant antecedents such as family vs business goals (e.g. Molly et al., 2019), through surveys. Third, the use of a sample of public Italian family firms could limit the generalizability of our results to other types of firms and countries. In fact, different legislation on the protection of shareholders and creditors (La Porta et al., 1998) would allow us to compare this context, characterized by lower lender

protection, to the Anglo-Saxon context, which is more prevalent in family business research, where the corporate governance system has different features. Future research may also consider different levels of family involvement in governance, even in terms of number of later-generation kin serving on the board. Finally, although we implemented additional checks, our results may suffer from an endogeneity concern as this remains a complicated issue to mitigate.

With regard to additional directions for future research, we suggest investigating the impact of other potential factors (e.g. family name, financial versus non-financial background of family members, and gender diversity on the board in relation to risk-averse attitude), that may affect the corporate debt maturity structure. Furthermore, we suggest extending our results by investigating whether CEO or chief financial officer characteristics (e.g. gender, affiliation, professional and educational background, power, etc.) play a role in affecting family firms' debt maturity structure and policies. Future research avenues should also consider the possibility that family involvement in governance may have a mediating role between family ownership and debt maturity structure, as well as the effects of interest-bearing and non-interest-bearing debt on debt maturity structure.

5.4. Concluding remarks

Drawing on governance literature and insights from the SEW perspective, this study has investigated the relationship between family involvement in governance and debt maturity structure in family firms. By showing that there are differences in the proportion of long-term debt depending on differences in involvement in governance, we add to our understanding of family firms' debt maturity structure. This is important because debt maturity plays a key role in making strategic decisions and mitigating agency conflicts and allows us to add further nuance to our understanding of the heterogeneity of family firms with regard to debt structure.

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Figure 1 - Research model

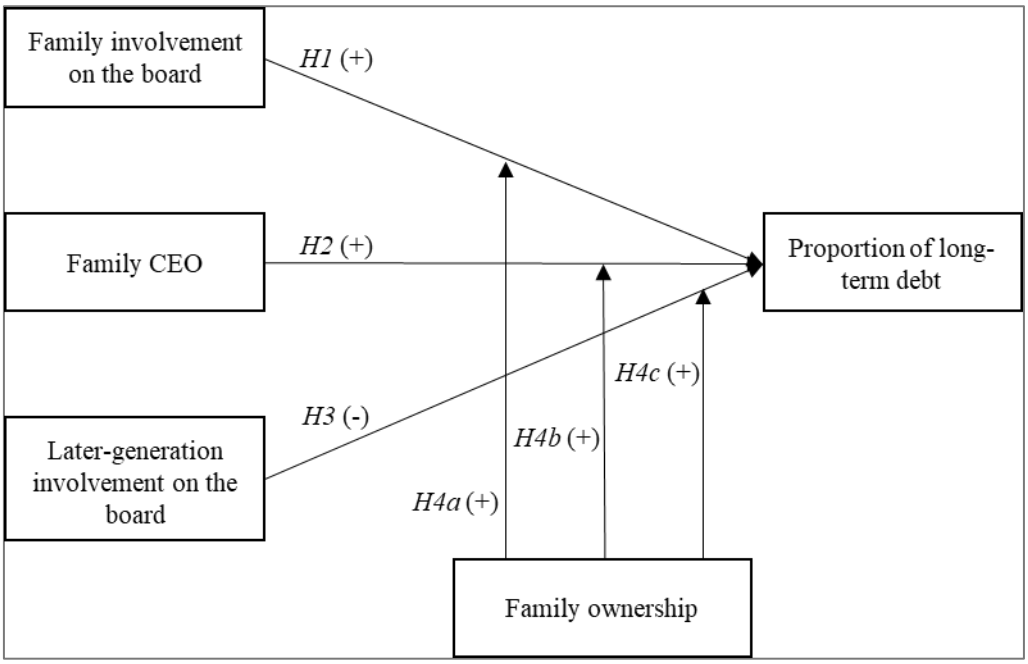

Figure 2 – Interaction effect

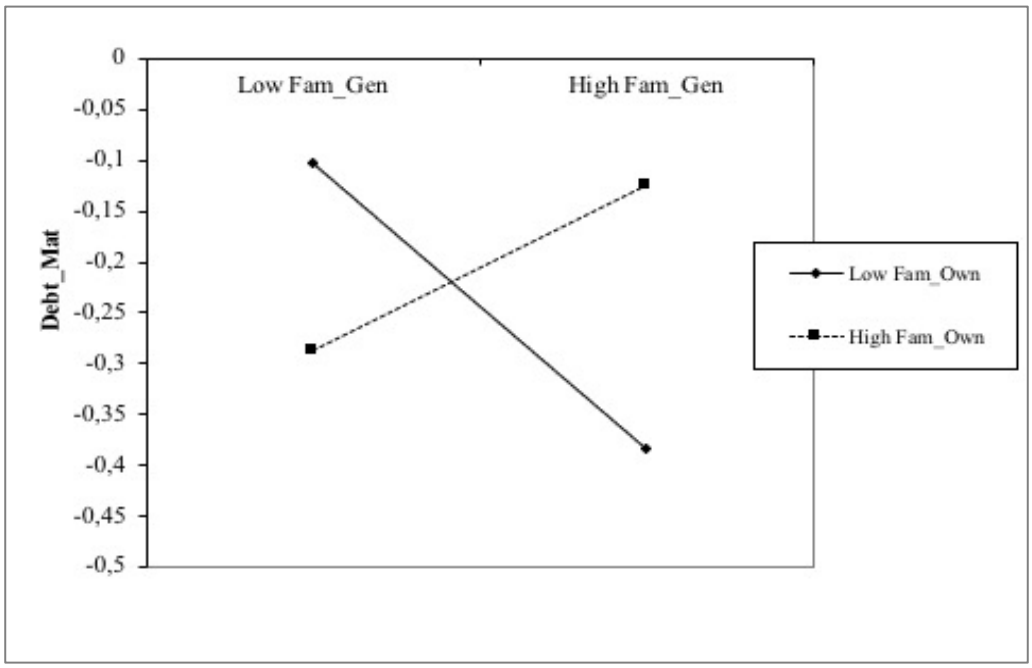

Table 1 – Sample composition

Panel A: Sample composition by industry

Industry	Observations	Sample proportion
Manufacturing	224	58.49%
Services	144	37.60%
Wholesales	15	3.92%
Total	**383**	**100%**

Panel B: Sample composition by year

Year	Observations	Sample proportion
2014	77	20.10%
2015	78	20.37%
2016	78	20.37%
2017	79	20.63%
2018	71	18.54%
Total	**383**	**100%**

Table 2 – Descriptive statistics and correlations

	Obs.	Mean	S. Dev.	Min.	Max.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1). DEB_MAT	383	0.32	0.23	0	0.96	-														
(2). FOB	383	28.71	13.45	7.14	80	-0.12*	-													
(3). F_LEAD	383	0.62	0.45	0	1	-0,17*	0.37*	-												
(4). F_GEN	383	2.03	0.68	1	4	0.012	0.06	-0.16*	-											
(5). SIZE	383	12.27	1.59	8.66	15.69	0.29*	-0.35*	-0.15*	-0.33*	-										
(6). LEV	383	0.18	0.14	0	0.86	0.81*	-0.14*	-0.15*	0.06	0.26*	-									
(7). PROFIT	383	0.34	0.12	-0.80	0.56	0.04	-0.44	-0.02	0.15*	0.12*	0.00	-								
(8). TANG	383	0.10	0.10	0.00	0.46	0.00	0.15*	-0.10*	0.18*	-0.19*	0.06	0.03	-							
(9). GROWTH	383	0.38	3.48	-0.99	58.23	0.02	0.02	0.04	-0.06	-0.12*	-0.01	-0.03	-0.04*	-						
(10). GAAP_ETR	383	0.23	0.27	0	1	0.11*	0.00	0.02	0.10*	0.14*	0.11*	0.00	-0.00	-0.01	-					
(11). F_AGE	383	49.55	33.97	2	155	0.08	-0.03	-0.19*	0.05*	0.28*	0.11*	-0.03	0.12*	-0.05	0.05	-				
(12). B_SIZE	383	8.77	2.89	3	18	0.21*	-0.43*	-0.18*	0.39*	0.70*	0.19*	0.09	-0.11*	-0.5	0.08	0.23*	-			
(13). CEO_DUA	383	0.38	0.48	0	1	-0.10*	0.33*	0.51*	-0.22*	-0.23*	-0.02	-0.04	0.04	-0.06	0.01	-0.22*	-0.28*	-		
(14). IND_DIR	383	0.39	0.15	0	0.87	0.24*	-0.35*	-0.08	0.08	0.42*	0.21*	-0.01	-0.27*	0.04	0.03	0.22*	0.32*	-0.22*	-	
Moderator:																				
(15) F_OWN	383	62.91	8.89	50.00	87.03	-0.24*	0.19*	0.06	-0.14*	-0.32*	-0.19*	-0.07	0.03	-0.07	-0.08	-0.08	-0.31*	0.13*	-0.20*	-

Note: * denotes significance at 5%.
Variable description: DEB_MAT is long-term debt (i.e. the book value of debt with a time to maturity exceeding one year) to the book value of total debt. FOB is the percentage of family members on the board of directors. F_LEAD is a dummy variable that equals to 1 (one) when the CEO is from the owning family, and 0 (zero) otherwise. F_GEN is the latest family generation that is on the board of directors. SIZE is the natural logarithm of total assets. LEV is long-term debt to total assets. PROFIT is net income to total assets. TANG is property, plant, and equipment divided by total assets. GROWTH is the annual variation of sales. GAAP_ETR is tax expense divided by pre-tax book income. F_AGE is the number of years since firm's foundation. B_SIZE is the total number of board of directors. CEO_DUA is a dummy variable equal to 1 (one) if the CEO is also the chairperson of the board, and 0 (zero) otherwise. IND_DIR is the percentage of independent directors to board of director. F_OWN is the percentage of family held shares.

Table 3 – Regression results

	Dependent variable: DEB_MAT								
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
Family involvement in governance:									
FOB		0.000	0.000	0.015†	0.001*	-0.000	0.001†	0.001*	0.003
		(0.000)	(0.000)	(0.000)	(0.000)	(0.004)	(0.000)	(0.000)	(0.004)
F_LEAD			-0.035†	-0.035†	-0.035†	-0.035†	-0.176	-0.037†	-0.243†
			(0.020)	(0.020)	(0.020)	(0.020)	(0.120)	(0.019)	(0.129)
F_GEN				-0.037*	-0.038*	-0.037*	-0.038*	-0.294***	-0.318***
				(0.016)	(0.016)	(0.016)	(0.016)	(0.090)	(0.092)
Controls:									
SIZE	0.013	0.013†	0.014†	0.014†	0.011	0.012	0.011	0.012	0.011
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.007)	(0.007)
LEV	1.121***	1.123***	1.115***	1.117***	1.111***	1.106***	1.100***	1.113***	1.103***
	(0.049)	(0.049)	(0.049)	(0.049)	(0.049)	(0.050)	(0.050)	(0.049)	(0.050)
PROFIT	0.079	0.079	0.079	0.093	0.091	0.089	0.089	0.094	0.094
	(0.061)	(0.061)	(0.061)	(0.061)	(0.060)	(0.060)	(0.060)	(0.059)	(0.059)
TANG	-0.158	-0.152	-0.169	-0.133	-0.145	-0.146	-0.133	-0.193†	-0.177†
	(0.102)	(0.103)	(0.103)	(0.101)	(0.101)	(0.101)	(0.101)	(0.100)	(0.099)
GROWTH	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
GAAP_ETR	0.007	0.007	0.009	0.013	0.012	0.012	0.010	0.017	0.014
	(0.025)	(0.025)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)
F_AGE	-0.000	-0.000	-0.000	0.000	0.000	0.000	-0.003	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.003)	(0.001)	(0.000)	(0.003)
B_SIZE	0.000	0.002	0.002	0.005	0.004	0.004	0.004	0.005	0.005
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
CEO_DUA	-0.004	-0.008	-0.001	-0.002	-0.002	-0.003	-0.002	-0.006	-0.007
	(0.185)	(0.189)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
IND_DIR	0.050	0.062	0.064	0.060	0.056	0.055	0.058	0.057	0.061
	(0.063)	(0.064)	(0.064)	(0.063)	(0.063)	(0.063)	(0.063)	(0.062)	(0.062)
Moderator:									
F_OWN					-0.001†	-0.002	-0.003*	-0.009***	-0.011***
					(0.001)	(0.002)	(0.001)	(0.002)	(0.003)
Interaction effects:									
FOBxF_OWN						0.000			-0.000
						(0.000)			(0.000)

F_LEADxF_OWN							0.002 (0.001)		0.003 (0.002)
F_GENxF_OWN								0.004*** (0.001)	0.004*** (0.001)
INTERCEPT	-0.172† (0.098)	-0.209* (0.104)	-0.209* (0.104)	-0.191† (0.100)	-0.044 (0.131)	0.012 (0.181)	0.052 (0.155)	0.442* (0.210)	0.574* (0.244)
Years, Industry	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	383	383	383	383	383	383	383	383	383
R-sq. overall	0.68	0.68	0.68	0.69	0.70	0.70	0.70	0.71	0.70
Wald Chi2	597.05	597.64	601.79	625.93	632.91	629.98	632.95	662.90	671.39
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: ***p < 0.001, **p < 0.01, *p < 0.05, † p < 0.10. Standard errors are in parenthesis. See Table 2 for variable description.

Table 4 – Regression robustness results (different definition of family firms)

	Dependent variable: DEB_MAT	
	Model (10)	Model (11)
Family involvement in governance:		
FOB	0.001†	0.002
	(0.000)	(0.003)
F_LEAD	-0.027	-0.135
	(0.019)	(0.092)
F_GEN	-0.043***	-0.180***
	(0.011)	(0.076)
Controls:		
SIZE	0.015*	0.016*
	(0.007)	(0.007)
LEV	1.148***	1.146***
	(0.047)	(0.048)
PROFIT	0.084	0.087
	(0.058)	(0.058)
TANG	-0.130	-0.142
	(0.097)	(0.098)
GROWTH	0.001	0.000
	(0.001)	(0.001)
GAAP_ETR	-0.000	-0.000
	(0.023)	(0.023)
F_AGE	0.000	0.000
	(0.000)	(0.000)
B_SIZE	0.005	0.005
	(0.002)	(0.002)
CEO_DUA	-0.008	-0.006
	(0.189)	(0.190)
IND_DIR	0.050	0.054
	(0.058)	(0.059)
Moderator:		
F_OWN	-0.009	-0.005
	(0.000)	(0.002)
Interaction effects:		
FOBxF_OWN		-0.000
		(0.000)
F_LEADxF_OWN		0.001
		(0.001)
F_GENxF_OWN		0.002†
		(0.001)
INTERCEPT	-0.137	0.112
	(0.094)	(0.157)
Years, Industry	Yes	Yes
Observations	431	431
R-sq. overall	0.71	0.71
Wald Chi2	724.54	728.92
Prob > Chi2	0.000	0.000

Notes: ***p < 0.001, **p < 0.01, *p < 0.05, † p < 0.10. Standard errors are in parenthesis. See Table 2 for variable description.

Table 5 – Regression robustness results (lagged values)

	Dependent variable: DEB_MAT	
	Model (12)	Model (13)
Family involvement in governance:		
FOB	0.001†	0.005
	(0.000)	(0.005)
F_LEAD	-0.039†	-0.031*
	(0.022)	(0.155)
F_GEN	-0.023	-0.263*
	(0.018)	(0.018)
Controls:		
SIZE	-0.003	-0.001
	(0.011)	(0.010)
LEV	1.090***	1.074***
	(0.057)	(0.057)
PROFIT	0.090	0.107
	(0.070)	(0.070)
TANG	-0.211†	-0.224*
	(0.114)	(0.111)
GROWTH	0.001	0.001
	(0.001)	(0.001)
GAAP_ETR	0.037	0.030
	(0.029)	(0.029)
F_AGE	-0.000	-0.000
	(0.000)	(0.000)
B_SIZE	0.010†	0.010*
	(0.005)	(0.005)
CEO_DUA	-0.019	-0.019
	(0.024)	(0.023)
IND_DIR	0.086	0.098
	(0.076)	(0.075)
Moderator:		
F_OWN	-0.002†	-0.010*
	(0.001)	(0.003)
Interaction effects:		
FOBxF_OWN		-0.000
		(0.000)
F_LEADxF_OWN		0.004†
		(0.002)
F_GENxF_OWN		0.003†
		(0.001)
INTERCEPT	0.157	0.646*
	(0.196)	(0.296)
Years, Industry	YES	YES
Observations	305	305
R-sq. overall	0.68	0.69
Wald Chi2	467.89	497.79
Prob > Chi2	0.000	0.000

Notes: ***p < 0.001, **p < 0.01, *p < 0.05, † p < 0.10. Standard errors are in parenthesis. See Table 2 for variable description.

Table 6 – Regression robustness results (Tobit model)

	Dependent variable: DEB_MAT	
	Model (14)	Model (15)
Family involvement in governance:		
FOB	0.001***	0.006
	(0.000)	(0.003)
F_LEAD	-0.220	-0.232†
	(0.176)	(0.121)
F_GEN	-0.050***	-0.397*
	(0.014)	(0.081)
Controls:		
SIZE	0.003	0.005
	(0.006)	(0.006)
LEV	1.252***	1.122***
	(0.049)	(0.049)
PROFIT	0.103†	0.117*
	(0.058)	(0.057)
TANG	-0.081	-0.126
	(0.077)	(0.077)
GROWTH	0.001	0.018
	(0.001)	(0.001)
GAAP_ETR	0.017	0.000
	(0.026)	(0.023)
F_AGE	0.000	0.000
	(0.000)	(0.000)
B_SIZE	0.007†	0.007*
	(0.003)	(0.003)
CEO_DUA	-0.042*	-0.042*
	(0.017)	(0.017)
IND_DIR	0.042	0.043
	(0.056)	(0.055)
Moderator:		
F_OWN	-0.002***	-0.013***
	(0.000)	(0.002)
Interaction effects:		
FOBxF_OWN		-0.000
		(0.000)
F_LEADxF_OWN		0.003†
		(0.001)
F_GENxF_OWN		0.005***
		(0.001)
INTERCEPT	0.098***	0.730***
	(0.104)	(0.203)
Years, Industry	Yes	Yes
Observations	383	383
Pseudo R2	6.54	6.81

Notes: ***p < 0.001, **p < 0.01, *p < 0.05, † p < 0.10. Standard errors are in parenthesis. See Table 2 for variable description.