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Family-Centered Goals, Family Board Representation, and Debt Financing

Vincent Molly, Lorraine Uhlaner, Alfredo De Massis, Eddy Laveren

Abstract This study investigates the effect of both family-centered goals and family board representation (family member representation on the board of directors) on family firm capital structure. Based on a sample of 327 Belgian family SMEs, our findings show that family-centered goals indirectly affect the total debt rate through family board representation. More specifically, the results indicate that this mediating effect holds primarily for the short-term (vs. long-term) debt rate and for the financial (vs. nonfinancial) debt rate. Taken together, our findings suggest that the socioemotional wealth (SEW) perspective is relevant and fruitful to explain debt decisions in family firms. Our findings contribute to family business literature and enable scholars and practitioners to gain a better understanding of family firm capital structure decisions.

Keywords Family business, family-centered goals, financing, debt, governance, board of directors, socioemotional wealth

JEL Codes: D22, G32, L21

1 Introduction

Family firms differ from nonfamily firms in their greater propensity to assess strategic decisions in relation to both economic and noneconomic goals, linked to the creation of financial wealth (FW) and socioemotional wealth (SEW) (Gómez-Mejía et al. 2007; Gómez-Mejía et al. 2011; Kotlar et al. 2017). In the family firm context, such noneconomic goals often revolve around the family and concern continued family control, family harmony, next generation succession, and employment of family members. These family-centered goals are acknowledged to drive the behavior of family firms (Gómez-Mejía et al. 2007; Koropp et al. 2013b; Kotlar and De Massis 2013; Lyagoubi 2006). In the SEW perspective, such variations in goal orientation explain the differences between family and nonfamily firms, and among family firms, in their pursuit of a range of strategic decisions, including R&D investments (Chrisman and Patel 2012; Patel and Chrisman 2014), international diversification (Gómez-Mejía et al. 2010), acquisitions (Gómez-Mejía et al. 2015), and financing (see, for example, Cirillo et al. 2015; Leitterstorf and Rau 2014; Michiels and Molly 2017). With respect to the latter, prior research sheds light on how SEW influences certain financing decisions in family firms (Jain and Shao 2014; Kotlar et al 2017; Leitterstorf and Rau 2014; Tappeiner et al. 2012; Fernando et al. 2014; Landry et al. 2013; Vandemaele and Vancauteran 2015). However, the relationship between family-centered goals and the use of debt financing in family firms has scarcely been studied. This is rather surprising since previous research finds differences in the use of debt financing between family- and nonfamily firms (e.g., Blanco-Mazagatos et al. 2007; González et al. 2013; Burgstaller and Wagner 2015), and within family firms (e.g., Amore et al. 2011; Molly et al. 2010, 2012; Koropp et al. 2013a, 2013b). Moreover, debt financing is the most important source of external financing for family firms (Romano et al. 2001) and hence warrants further research efforts. In this paper, we

examine family heterogeneity with respect to the variation in family-centered goals as a starting point to explain differences in debt financing among family firms.

Given that the firm's financing policy is usually established at the board level, we expect the relation between family-centered goals and capital structure to be mediated by the family's discretion or ability to influence board decisions. Hence, the second objective of our study is to test the possible mediating effect of family representation on the board of directors (henceforth BOD or board) on the relationship between family-centered goals and debt financing in family firms. In this way, our study extends current knowledge on two important aspects of family firm heterogeneity, namely, family-centered goals and board composition (Chrisman et al 2007; Chua et al. 2012). The third objective is to explore whether this mediating effect is more evident for certain types of debt. While most studies only focus on the total debt rate, here we also distinguish between types of leverage (financial and nonfinancial debt) and debt maturity structure (short-term and long-term debt).

The main contribution of this study to family business literature lies in broadening our understanding and applicability of the SEW perspective in the unique context of family firm financial decision-making (Fernando et al. 2014; Koropp et al. 2014). We find that the relation between the owning family's "willingness" (i.e. their favorable disposition) to pursue family-centered goals and the firm's debt rate is mediated by the owning-family's position on the board (i.e. their "ability" or discretion to impose family-centered goals when making financing decisions). This finding offers empirical support to the ability and willingness framework adopted to predict the family firm's particularistic behavior (De Massis et al. 2014; Chrisman et al. 2015). It also illustrates the importance of studying the distinct aspects of SEW as Berrone et al. (2012) propose, providing further insights into the real motives behind SEW and how this affects family

firm debt financing. In addition, our study contributes to ongoing discussions on the heterogeneity of family firm behavior (Carr et al. 2016; Chua et al. 2012) by identifying the owning family's willingness (family-centered goals) and ability (family board representation) as two key drivers of family firms' heterogeneous behavior, consistent with prior research on this matter (Chua et al. 1999; De Massis et al. 2014). Finally, our findings also have a number of implications for practice. We offer insights to family owners, financial institutions, policy makers, and business advisors to improve their understanding of the complexity of financial decisions and the determinants of capital structure choices in family firms.

The remainder of the article is structured as follows: The next section reviews the literature on financing, goals, and board composition in family firms, and presents the resulting hypotheses. The method section provides details of the sample, data collection, variables, and statistical methods. In the subsequent section, the empirical results are presented. Our final section includes a discussion of our findings, together with some conclusions and practical implications.

2 Literature review and hypotheses formulation

This section presents the overall research framework (see Figure 1), including the hypotheses and their rationale.

[Insert Figure 1 about here]

2.1 Family-centered goals and capital structure

Past family business research on capital structure and debt financing differentiates between demand-side factors, namely, those affecting the firm's willingness to borrow (Barton and Matthews 1989; Hutchinson 1995), and supply-side arguments that examine the ways in which

firms may be restricted from borrowing, for instance, due to financing constraints. In the business financing literature, this distinction between demand and supply is an important aspect in interpreting the results, as Chua et al. (2011) clearly state. In this article, our focus is on the demand-side perspective associating family-centered goals to the use of debt financing.

Koropp et al. (2013b), Kotlar and De Massis (2013) and Lyagoubi (2006) suggest that owner-manager goal orientation may serve as a framework for understanding differences in financing decisions and capital structure decision-making. While both family and nonfamily firms are likely to pursue economic goals, such as profit maximization, increased financial value or increased market share, family-owned firms more uniquely pursue family-centered goals, such as the preservation of family ownership and control, family harmony, and providing work to family members. Family business scholars have debated whether the pursuit of family-centered goals derives from a form of altruism (selfless behavior not motivated by economic returns) (Eddleston and Kellermanns 2007), or from the less selfless aim of preserving the family's social identity (Uhlaner et al. 2007). Either way, more recent family firm research acknowledges that the importance placed on family-centered and business-centered goals can vary widely among family firms, leading to recognizing their *heterogeneity* (Chrisman et al. 2007), which may help explain differences in capital structure among family firms.

Recently, family business financing research has drawn on the SEW perspective - an umbrella concept incorporating the family-centered goals of family firms (Chua et al. 2015) - to explain differences between family and nonfamily firms, and among family firms. For instance, extant research sheds light on how SEW considerations influence financing decisions, such as IPO pricing and other IPO post-investment policies (Jain and Shao 2014; Kotlar et al 2017; Leitterstorf and Rau 2014), use of private equity (Tappeiner et al. 2012), openness to institutional investors

(Fernando et al. 2014), lease decisions (Landry et al. 2013), and dividend payouts (Vandemaele and Vancauteran 2015). However, the relation between SEW and a family firm's use of debt is less well understood.

In the SEW perspective, family firms are expected to maintain family control and influence, fulfill family desires for belonging and identity, and perpetuate family values and family dynasty as a means of preserving or enhancing SEW (Berrone et al. 2012, Kotlar et al. 2017). When SEW is threatened, the owning family may accept a greater risk of inferior firm performance. Family-centered goals oriented to preserving SEW can thus be seen as "willingness" drivers of family firm behavior, and hence likely to influence capital structure decisions (Barton and Matthews 1989; De Massis et al. 2014; Hutchinson 1995). Schmid (2013) suggests that family firms take into account the risk of losing control when making debt-financing decisions due to creditor monitoring. They tend to have lower leverage ratios as creditors extensively exert influence on business operations. Elaborating further on Schmid's (2013) findings, a family firm's greater focus on family-centered goals, such as retaining family control, is expected to be negatively related to the use of debt financing.

Past research examines the values and goals of the owner/manager to explain capital structure differences within family firms. Romano et al. (2001) suggest that a family firm more strongly focused on business-centered goals will make financing decisions oriented towards a growth strategy, which is likely to result in a higher debt rate (Romano et al. 2001). The greater focus on family-centered goals, such as family control, successful business transfer, or family employment, is likely to have a reverse effect, meaning that the family firm will be less indebted. Similar conclusions can be drawn from the work of Molly et al. (2010, 2012) and Koropp et al. (2013a), where the authors link their findings to family business succession. Family firms that experienced

a succession are more oriented towards the family and towards goals, such as preservation of control, which is negatively related to debt financing. This more conservative financing behavior in family firms is in line with the SEW perspective, suggesting that family firms strongly focused on safeguarding family involvement and control are assumed to minimize risk-taking, and thus retain greater control over their wealth by employing less debt financing.

In sum, to preserve their SEW, family firms with a stronger focus on family-centered goals tend to take on less debt to reduce their risk of losing family control. We thus hypothesize:

Hypothesis 1 (H1): The relationship between the pursuit of family-centered goals and the family firm's debt rate is negative.

2.2 Family board representation as mediator

The BOD of privately-held firms is an important vehicle to implement the owners' goals. Goals represent the owners' desires or motives, whereas the BOD represents the owners' discretion or "ability" to impose these desires or motives (De Massis et al. 2014).

The BOD in family firms typically consists of only family shareholders or a majority of family shareholders (Gallo et al. 2004). As such, one might presume the owning family's greater ability or discretion to retain family control and influence, or to implement the family-centered goals (Chrisman et al. 2015). Such discretion is likely to include decisions affecting capital structure, for example, whether or not to take on equity partners, or whether to take on external debt to finance new projects. When the board is primarily or exclusively composed of family members, it can more easily ensure the family's interests and perpetuate family-centered goals and desires that maximize SEW (Lane et al. 2006; Faghfoury et al. 2015; Berrone et al. 2010; Gómez-Mejía et al. 2007). Other researchers argue for an even stronger relationship between family-centered goals

and family board composition, suggesting that owning families often consciously choose all-family boards to assure the implementation of family-centered goals (Jaskiewicz and Klein 2007) and “keeping the family character” (Voordeckers et al. 2007). Thus, an all-family BOD maintains family control by reducing the risk of the BOD overturning the owning family’s wishes (Anderson and Reeb 2004). By contrast, a BOD with nonfamily (outsider) members may be more pressed to balance the (noneconomic) interests of family shareholders with the economic interests of nonfamily shareholders to expand the business or attain short-term profits (Blumentritt 2006; Chrisman et al. 2004; Corbetta and Salvato 2004; Faghfour et al. 2015; Luoma and Goodstein 1999; Neubauer and Lank 1998; Nordqvist et al. 2014; Steijvers et al. 2010; Voordeckers and Steijvers 2006).

Based on the aforementioned literature, we examine the possible mediating effect of family BOD representation on the relationship between family-centered goals and debt financing in family firms. We expect that the more motivated the firm’s owners are to pursue family-centered goals, the more likely they will be to retain their “ability” to influence the firm by maintaining a high level of family representation on the board. This high representation, in turn, will assure the family’s ability to impose these goals, thereby influencing financial decision-making, including decisions affecting the level of debt. Since financial decisions are one of the main responsibilities of the board (Koropp et al. 2013b), we expect the family’s ability to influence such decisions via its board representation to mediate the (indirect) relationship between family-centered goals and total debt rate. Formally stated:

Hypothesis 2 (H2): Family board representation will mediate the negative relationship between the pursuit of family-centered goals and the family firm’s total debt rate.

2.3 Debt type and maturity structure

The total level of debt usually consists of several types of liabilities, such as bank loans, accounts payable, short-term and long-term debt. Although studies on different categories of debt financing are rather limited (Koropp et al. 2013b; Lopez-Garcia and Sanchez-Andujar 2007), some interesting insights can be found in literature. A first important distinction is the debt maturity structure concerning the difference between short-term and long-term debt. Consistent with other research findings, Mishra and McConaughy (1999) find that family firms prefer to use lower levels of debt, as this allows them to reduce the risk of losing control, although the effect is strongest in relation to short-term debt. The authors explain that short-term borrowings are usually characterized by greater refinancing risk, and eventually greater bankruptcy risk, which potentially increases the power of creditors to take control of the firm. Consistent with this argument, Ortiz-Molina and Penas (2008) and Shyu and Lee (2009) find that creditor monitoring is more effective in the case of short-term debt, as it is subject to more frequent control and contract renegotiations compared to long-term borrowing. Shareholders/managers therefore prefer using long-term debt, as they feel less constrained by this type of borrowing in controlling the firm.

A second main distinction in debt financing concerns the difference between financial and nonfinancial debt. Shyu and Lee (2009) focus their study on financial debt without considering accounts payable, received prepayments, or other types of debt not associated with bank loans, which typically constitute nonfinancial debt considered part of the firm's day-to-day operations and may not directly threaten family control. According to Strebulaev and Yang (2013), these nonfinancial liabilities are not part of the firm's active capital structure choices. Financial debt, however, is used as a resource to finance the business and its investment projects, and is usually subject to collateral or covenants with a bank to secure the debt obligation. This allows the creditor to impose restrictions on the activities and actions the firm undertakes. Therefore, we expect that

family firms will make a considered choice in the use of financial debt and will favor lower levels of such debt based on control risk considerations.

Overall, if the risk of losing control is greater for short-term debt and financial debt, we expect the negative mediating effect of high family board representation on the firm's leverage to be stronger for short-term debt than long-term debt, and for financial debt versus nonfinancial debt. Therefore, in line with the hypotheses formulated earlier and in accordance with the SEW perspective, the short-term debt rate and the financial debt rate is expected to be more negatively related to the pursuit of family-centered goals through the mediating effect of family board representation. This leads to our final hypotheses:

Hypothesis 3a (H3a): The mediating effect of family board representation for the independent variable (pursuit of family-centered goals) will be stronger for the family firm's short-term debt rate than for its long-term debt rate.

Hypothesis 3b (H3b): The mediating effect of family board representation for the independent variable (pursuit of family-centered goals) will be stronger for the family firm's financial debt rate than for its nonfinancial debt rate.

3 Method

3.1 Data

The research data used in this study is a combination of survey data and publicly available archival data. Although many family firm studies rely exclusively on self-reported data (e.g., Daily and Dollinger 1992; Schulze et al. 2003), this research benefits from a regulatory environment in Belgium whereby all limited liability companies have to publish annual accounts. Thus,

quantitative data on firm leverage and other variables can be collected from legally required information available through the Bel-First database of Bureau Van Dijk containing detailed financial information on over 400,000 Belgian businesses.

The subjective information derives from a large-scale survey sent out to 2,500 private small and medium-sized firms in Flanders (northern region of Belgium) in 2006. Starting from the Bel-First database, we used several criteria to derive our survey population. First, companies involved in the financial, educational, and social sectors were excluded from the population. Second, we further selected SMEs with between 10 and 250 employees, since micro firms often lack a high degree of formality in their organizational structure and governance (Gray and Mabey 2005). From this population, we selected potential family firms based on meeting one of four additional criteria: we indirectly inferred family involvement in these firms if two or more company directors had the same family name (1), or the company is named after one of its directors (2); a company was considered a family firm if two or more directors reside at the same address (3), or if at least one of the directors resides at the business address (4). These criteria resulted in a group of 8,146 potential family firms from which we drew a random sample to arrive at 2,500 firms. In a subsequent step, we sent a postal survey to the managing directors of these companies. The survey included questions on the pursuit of family-centered and business-centered goals, and on family ownership, management, and governance characteristics. After two rounds, the survey achieved a response rate of 20.16%, resulting in a population of 504 respondent firms. This response rate is in line with other family business studies (e.g., Chrisman et al. 2009). For the purpose of the analysis, we omitted 9 respondents from the research population of 504 due to the anonymous character of these firms. To further identify the family firms in our dataset, we started from the various family firm definitions of Westhead and Cowling (1998). Firms were regarded as family

firms if 50% or more of shares are owned by family members, or the managing director perceives the company as a family business (3 firms excluded). Since family board representation is a main variable in this study, only limited liability companies under Belgian law (*naamloze vennootschap/société anonyme*) were selected (149 firms excluded), which is the only business form in Belgium where the firm is legally obliged to have a BOD. Finally, given the demand-driven nature of our hypotheses on the use of debt financing, we considered the potential effect of supply-side financing constraints by removing firms from our sample that experienced difficulties in attracting bank financing. Based on our survey data with respect to refused credit requests, 16 firms were identified as financing-constrained firms and were thus removed from our sample. Applying all the above criteria led to a total sample of 327 family firms.

To assess the presence of nonresponse bias, we compared firm characteristics between the responding firms and the original 2,500 firms of the survey population. With respect to size, industry, age and location, the group of respondents had similar characteristics to those of the survey population. We also compared the firms that responded to the first round of our questionnaire against those that responded in the follow-up survey two months later. No significant differences were found between these two groups of respondents with respect to firm size, industry, age, location, and all the other dependent and independent variables used in our analyses.

3.2 Variables

Dependent variables. To test our hypotheses on the *total debt rate*, we averaged the proportion of total debt (which can be calculated as the sum of financial and nonfinancial debt or the sum of

short-term and long-term debt) to total assets over the years 2007 and 2008.¹ We further divided total debt into short-term debt (maturity of under one year) and long-term debt (maturity of over one year) to gain insights on the debt maturity structure based on the *long-term debt rate* and *short-term debt rate*. Since total debt also contains interest-bearing and noninterest-bearing debt, a final distinction was made between the *nonfinancial debt rate* and *financial debt rate*, where the latter was calculated by taking the proportion of total interest-bearing debt to total assets averaged over the period 2007-2008.

Independent variables. The family-centered goals variable assesses the extent to which family firms pursue family-centered goals. Previous studies (Astrachan and Jaskiewicz 2008; Gómez-Mejía and Wiseman 1997; Westhead and Howorth 2007; Zellweger and Astrachan 2008; Zellweger et al. 2013) show that family firms differ from their nonfamily counterparts by focusing on family-centered goals, such as family control, family harmony, succession, and employing family members. In line with Berrone et al. (2012), these priorities refer to some important SEW dimensions, such as “family control and influence”, “emotional attachment of family members”, and “renewal of family bonds through dynastic succession”. We therefore included the following four goal items in the family-centered goals scale: (1) “successful business transfer to the next generation”, (2) “preservation of family control and independence”, (3) “minimization of family conflicts” and (4) “provision of work to family members”. Each item was measured as the degree to which the owner-manager attaches importance to the pursuit of these family-centered goals, measured on a seven-point Likert scale ranging from -3 (not at all) to +3 (to a very high extent). The scores of all these goal items were averaged (Cronbach’s alpha = .73).

¹ While the financial crisis began in 2007 in the US, in Belgium the crisis did not begin until the last quarter of 2008. Furthermore, in Belgium, corporate credit supply was only affected from 2009 onwards (Vermoesen et al. 2013). Thus, the period covered in this research (i.e. through 2008) was still protected in Belgium from the major shifts taking place elsewhere.

For the mediating variable relating to *family board representation*, we looked at the proportion of family members on the BOD as a percentage of the total number of board members. This is in line with the measurement that Corbetta and Salvato (2004) suggest. This variable represents the family's discretion through which they can impose their goals on outsiders on the BOD. High family board representation thus means that the owning family has high discretion to impose their family-centered goals when making decisions.

As control variables, we included *return on assets* (ROA) measured as earnings before interest, taxes, depreciation, and amortization divided by total assets. ROA measures the internal financing capacity of the firm, hence a negative relationship is expected with the debt rate, given that managers and owners usually prefer to finance their activities with internal funds rather than debt. Consistent with prior finance research (Fama and French 2002; Harris and Raviv 1991), we also controlled for the proportion of tangible (or fixed) assets (*tangibility*), an indicator of the firm's collateral value measured by calculating the ratio of fixed to total assets. We presumed that large proportions of tangible assets lead to the lenders' greater willingness to supply the firm with funds. We also included firm *size* as a control variable (Anderson and Reeb 2004; Romano et al. 2001) measured as the natural logarithm of total assets. With respect to industry, we used three dummy variables based on industry codes available in Bel-First. These correspond to the *manufacturing*, *construction*, and *trade* sectors, with the service sector used as reference. Firm *age* was also included as a control variable measured by the difference between 2007 and the year of foundation. Finally, we also took into account the importance of business-centered goals by controlling for this factor in analyzing the family firm's debt rates. Business-centered goals are a summated scale calculated by taking the average of the following four business-centered goal items (Cronbach's alpha = .74): (1) "increase in financial value", (2) "sales growth", (3) "profit

maximization”, and (4) “increase in market share”. These four business-centered goal items together with the four family-centered goal items were subjected to an exploratory factor analysis with varimax rotation, which resulted in a two-factor model, explaining over 56% of the total variance. No significant cross-loadings were detected. The descriptive statistics and the Pearson correlations of the variables used in this study are shown in Table 1.

[Insert Table 1 about here]

3.3 Data analysis

We used an Ordinary Least Squares Regression analysis to test for the main effects (H1) and the process macro for SPSS developed by Hayes (2013) to test for the mediation effects, which relies on bootstrapping to disentangle the impact of the direct and indirect effects. A 95% confidence interval was used to analyze this indirect effect based on 1,000 bootstrap samples. First, we tested for the effect of the control variables on the firms’ debt rate. Second, we tested for the direct effect of family-centered goals on the firms’ debt rate (H1). Third, we analyzed the indirect effect of family-centered goals on the debt rate through family representation on the board (H2). Last, the above steps were repeated to test our hypotheses on the firms’ short-term and long-term debt rate, and the firms’ financial and nonfinancial debt rate (H3a and 3b). All models were tested with heteroscedasticity-consistent standard errors. With regard to potential multicollinearity, the observed variance inflation factors always remained below the threshold of 10, with a maximum value of 2.53 (Hair et al. 2010). To reduce the influence of outliers in our regression analyses, we further excluded the most extreme 1% of cases of all dependent variables from further examination. Several alternative tests were also carried out to check the robustness of our findings.

4 Results

The results of the regression analyses based on the Hayes (2013) process macro are shown in Tables 2 to 6. The first baseline model for each of the dependent variables in the different tables includes only the control variables. To test H1 and H2, Table 2 includes a model for the total debt rate introducing family-centered goals (H1), after which we tested the mediation effect in the final two models (H2). Tables 3 and 4 contain the analyses on the short-term and long-term debt rate (H3a), while Tables 5 and 6 include the models on the financial and nonfinancial debt rate (H3b). Figure 2 provides an overall representation of the different relationships tested, including the total, direct, and indirect effects between the variables.

[Insert Figure 2 about here]

In this study, we examine the effect of differences in the pursuit of family-centered goals amongst family firms. Based on the SEW logic, we presume that even in a sample of family firms, a greater focus on family-centered goals is negatively related to a firm's use of leverage, since companies pursuing family-centered goals in accordance with SEW preservation prefer to maintain control and restrict outsider involvement. Consequently, we posited that family firms with a greater focus on family-centered goals would be more reluctant to use debt (Chen et al. 2008). However, as Model 2 (Table 2) shows, our results reject H1, since no significant relationship between family-centered goals and the firms' total debt rate is found.

Turning to H2, we expected to find that the more family-centered goals are pursued in the firm, the higher the representation of family members on the BOD, and the more these goals will be implemented and likely to influence financial decision-making in the firm. As Model 3 (Table 2) illustrates, the family-centered goals variable is positively related to family board representation. When integrating the mediating effect of both variables in Model 4 (Table 2), we find that the family-centered goals variable is not directly related to, yet indirectly affects, the total debt rate.

There is a significant indirect effect of family-centered goals on the firms' total debt rate through family board representation, with a coefficient of the indirect effect, $b = -.24$, and a 95% bias-corrected and accelerated (BCa) confidence interval (CI) = $[-.024, -.006]$. For instance, the unstandardized beta coefficient in Model 4 of $-.24$ means that when family board representation increases by 1 percent, the debt rate will decrease by 0.24 percent. This is a small but meaningful mediation effect, with the Sobel test showing a significant indirect effect (z score = -2.618 ; $p < .05$). These results therefore confirm H2.

[Insert Table 2 about here]

An interpretation of our findings is that establishing a family-centered goal orientation requires BOD support. Indeed, in many privately held family firms, the board is the organizational and governance context where decisions on strategy and financing are made (Neubauer and Lank 1998). The BOD is often highly controlled by the family, as board representation allows ensuring the family's interests and perpetuating the family's goals and desires (Lane et al. 2006). Since only the indirect effect of family-centered goals is significant through family board representation, and the direct effect is not, confirmation is found of a negative indirect-only mediation effect. As Zhao et al. (2010) show, this is one of the four mediating patterns observed in scientific research.

When further disentangling the firms' total debt rate, Tables 3 to 6 provide insights on the influence of family-centered goals and family board representation on the short-term and long-term debt rate, and financial and nonfinancial debt rate, respectively. Tables 3 and 4 first present the results on the mediating effect of family board representation on the firms' short-term and long-term debt rate.

As Model 4 (Table 3) illustrates, there is a significant indirect effect of family-centered goals on the firms' short-term debt rate through family board representation, $b = -.19$, 95% BCa CI = $[-.021, -.005]$. These results also provide evidence of a small but meaningful mediation effect, with the Sobel test showing a significant indirect effect (z score = -2.459 ; $p < .05$). For the long-term debt rate, Table 4 shows that no significant mediating effect is found, $b = -.05$, 95% BCa CI = $[-.009, .000]$, with the Sobel test rejecting a significant indirect effect (z score = -1.290 ; $p > .10$). Overall, these findings confirm H3a.

[Insert Tables 3 and 4 about here]

Finally, Tables 5 and 6 show that a negative mediating effect is also found for the financial debt rate. The analysis shows (see Model 4 in Table 5) that there is a significant indirect effect of family-centered goals on the firms' financial debt rate through family board representation, $b = -.13$, 95% BCa CI = $[-.016, -.003]$, with the Sobel test showing a significant indirect effect (z score = -2.330 ; $p < .05$). With respect to the firms' nonfinancial debt rate, Model 4 in Table 6 shows that there is a positive trend of family board representation on the nonfinancial debt rate ($p < .10$), but overall the mediation effect is not significant, $b = -.06$, 95% BCa CI = $[-.009, .000]$, with the Sobel test rejecting a significant indirect effect (z score = -1.540 ; $p > .10$). This pattern of results provides support for H3b.

[Insert Tables 5 and 6 about here]

To summarize, consistent with H3a and H3b, our results show that the indirect effect of family-centered goals on debt via family board representation is supported especially with regard to short-term debt and financial debt compared to other sources of debt financing. These findings are in line with literature illustrating that short-term and financial borrowings are usually characterized

by greater refinancing risk, greater bankruptcy risk, and increased credit monitoring. They also confirm the applicability of the SEW perspective to family firm debt financing behavior, since these particular forms of leverage pose the greatest threat to family control, rendering them less desirable in family firms strongly pursuing family-centered goals and characterized by high family board representation.

We also assessed the robustness of our findings by performing several additional tests. First, we re-estimated our models by including the potential outliers of all dependent variables. Second, we also considered the influence of business-centered goals in our analyses by excluding this variable from our model. Third, we considered the potential effect of supply-side financing constraints by integrating financing constrained firms in our sample. We also analyzed the effect of board size by omitting from our sample companies with fewer than three members on their board. However, introducing these adaptations and variations to our analyses did not change the results and the findings reported above. Finally, we tested an alternative model with the interaction effects of family-centered goals and family board representation. However, these results were not significant either (see Appendix 1).²

5 Discussion and conclusion

Prior studies on financing behavior in family firms rooted in the SEW theoretical perspective are scarce. The fact that SEW has hardly been studied in relation to leverage is somewhat surprising, since debt financing is one of the most important sources of external financing for family firms in most countries (Romano et al. 2001). Our study shows that SEW is a relevant and fruitful lens through which to explain debt decisions in family firms. It also provides an interesting framework

² The results from the robustness analyses are available from the corresponding author upon request.

to better understand the demand-side of financing, which should be clearly differentiated from studies that provide insights on the supply (or lack) of different sources of financing available on the market (see, for example, Chua et al. 2011; Molly et al. 2012 and Michiels and Molly 2017).

Our results indicate that family firms indeed consider both family-centered goals and family control through board representation when making decisions on the firm's debt rate. However, the fact that no significant direct effect of family-centered goals on firm debt rates was found suggests that family-centered goals do not directly influence decisions regarding debt use. We found this effect only through higher family board representation. Therefore, in line with De Massis et al. (2014), family representation on the board could be seen as an "ability driver" of SEW firm behavior, since greater power and control on the board grants family owners the discretion to impose their family-centered goals when making decisions. Our findings offer empirical support to the ability and willingness framework adopted to predict the particularistic behavior of family firms (De Massis et al. 2014; Chrisman et al. 2015), stating that both willingness (family-centered goals) and ability (family board representation) are needed to determine the family firm's distinctive behavior. In this regard, family-centered goals can be seen as a necessary but insufficient aspect of SEW influencing family firm financing behavior, requiring the ability to act in line with SEW through the family's control on the BOD. As such, we provide insights on the possible motives behind family firm propensity for SEW preservation (i.e. family-centered goals) and how this may be associated with family firm capital structure. Our findings also contribute to ongoing discussions on the heterogeneity of family firm behavior (Carr et al. 2016; Chua et al. 2012). Consistent with prior research (Chua et al. 1999; De Massis et al. 2014), willingness (family-centered goals) and ability (proportion of family members on the BOD) are identified as two key drivers of family firms' heterogeneous behavior.

Our findings have certain implications for practice, particularly in relation to family firm financial behavior and firm performance that may affect growth. High family board representation and a family-centered goal orientation are characteristics of family firms pursuing SEW. These firms usually have a more negative attitude towards external finance, which dissuades them from using such financing sources. Firms strongly focused on safeguarding SEW are assumed to minimize risk taking and thus retain greater control over their wealth by employing less debt. In addition to preferring to retain control of their business (Gómez-Mejía et al. 2007), family firms will likely deter growth opportunities rather than use external financing when internally generated funds have been exhausted. While this may contribute to noneconomic performance (Jaskiewicz and Klein 2007), it is also likely to constrain the family firm's future financial performance in terms of growth. If SEW is threatened, family firm owners may accept a greater risk of inferior financial performance. Family firm owners should therefore distinguish between family-centered and business-centered goals when assessing the appropriateness of capital structure choices. Increasing their knowledge of financial topics and processes would also engender a positive attitude towards debt financing decisions in optimizing their capital structure.

Furthermore, suppliers of financing (financial institutions, amongst others) should incorporate family firm heterogeneity in their marketing strategies and strive for greater understanding of family firm cautiousness, tailoring their financing to their customer's needs (less monitoring, less collateral requirements). In practice, many family SMEs predominantly use short-term debt financing, perhaps because financial institutions often push towards short-term funding to reduce information asymmetries. Indeed, Harford et al. (2008) indicate that the concern of bondholders on risk shifting is greatest for long-term debt. However, as this study shows, from the demand-side viewpoint and taking into account control considerations, SEW preservation stimulates family

firms to reduce their reliance on short-term debt. This discrepancy between debt demand and supply should be taken into account, for example, by financial institutions seeking to ease family firm access to bank financing.

Finally, we suggest policy makers focus on mechanisms to facilitate access to bank debt to provide family firms with adequate financing. They might consider ways to reduce the family owner's fear of losing control in financial decision-making, thereby fostering future growth. For business advisors, the findings encourage a better understanding of their customers to help them plan their future financing policy in line with the firm's long-term survival.

Although this paper contributes to both the family business and more generally finance literature in numerous ways, we must also acknowledge its limitations. First, while the independent variables were lagged by one to two years from measuring the dependent variables, supporting the proposed directionality of relationships between independent and dependent variables, any assumption of causality should be interpreted with caution, and would need more careful testing, for instance, through analyses over a longer period of time, using a panel study, or cross-lagged approach. Second, the time range of the financial data used to conduct the analysis for this study is limited to two years (2007 and 2008) to reduce the major disruptions of the global financial crisis in this period (hitting Belgium in the last quarter of 2008). The major crisis is likely to have led to financing constraints (supply-side) for family firms, which may result in a different capital structure. Consequently, several internal or external factors may have changed the importance of the demand- versus supply-side. This perspective would be interesting to study in future research. In addition, major events at the firm level, such as a merger/acquisition or generational transfer, may influence the goals (changing priorities), governance structure, or use of debt (financing constraints). Therefore, in line with Steier et al. (2015), future research could investigate the

evolution in the goal orientation and governance of firms, and the effects on capital structure decisions.

In conclusion, the indirect relationship we found between family-centered goals and family firm debt rate through the mediating role of family board representation, as well as the differences in the strength of this effect between various types of debt, may lead to developing a better understanding of family involvement and how this affects capital structure decisions for scholars, family business members, policy makers, and investors alike.

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Tables and Figures

Table 1 Descriptive statistics and correlations

Variables	Mean	St Dev.	1	2	3	4	5	6	7	8	9	10	11
Total debt rate	.58	.22											
Short-term debt rate	.44	.20	.80***										
Long-term debt rate	.16	.13	.39***	.27***									
Financial debt rate	.18	.16	.62***	.27***	.68***								
Nonfinancial debt rate	.21	.14	.53***	.66***	-.21***	.02							
Return on assets	.15	.11	-.15***	.22***	.04	-.12**	-.13**						
Tangibility	.31	.21	.13**	.16***	.49***	.33***	-.26***	.08					
Age	55.98	37.41	-.14***	-.05	-.14**	-.13**	-.09	-.12**	-.21***				
Size	7.92	1.09	-.04	-.01	-.21***	-.05	.11	-.12**	-.22***	.21***			
Family-centered goals	1.25	1.09	.01	.05	-.07	-.02	.06	.02	-.02	-.00	.06		
Business-centered goals	1.87	.76	.02	.06	-.04	-.03	.11	.02	-.01	-.07	.10	.42***	
Family board representation	.86	.22	-.16***	.16***	-.03	-.13***	-.09	.03	.08	-.11	.31***	.22***	-.02

*** and ** indicate significance at the 1% and 5% levels respectively.

Table 2 Regression analyses with process macro (Hayes, 2013): Total debt rate

Variable	Total debt rate (1)		Total debt rate (2)		Family board representation (3)		Total debt rate (4)				
	β	SE	β	SE	β	SE	β	SE			
Constant	.68***	.11	.68***	.11	1.36***	.12	1.00***	.15			
Return on assets	-.39***	.15	-.40***	.15	-.04	.18	-.41***	.14			
Tangibility	.12*	.06	.12*	.07	.02	.07	.13**	.06			
Age	-.00*	.00	-.00*	.00	-.00	.00	-.00**	.00			
Size	.00	.01	.00	.01	-.07***	.01	-.02	.01			
Industry	-.10**	.04	-.10**	.04	.02	.05	-.09**	.04			
Construction	-.01	.05	-.01	.05	.06	.05	.01	.04			
Trade	-.01	.04	-.01	.04	.05	.05	-.00	.04			
Business-centered goals	.00	.02	-.00	.02	-.03	.02	-.01	.02			
Family-centered goals			c →	.01	.02	a →	.06***	.02	c' →	.02	.01
Family board							b →	-.24***	.06		
Adj R ²	.07		.06		.16		.11				
F	3.83***		3.44***		6.66***		5.27***				
N	288		288		288		288				

***, ** and * indicate significance at the 1%, 5% and 10% levels respectively

Notes: β , unstandardized coefficient, SE = heteroscedasticity-consistent standard error.

Lower case letters for family-centered goals and family board representation refer to relationships shown in Figure 2.

Table 3 Regression analyses with process macro (Hayes 2013): Short-term debt rate

Variable	Short-term debt rate (1)		Short-term debt rate (2)		Family board representation (3)		Short-term debt rate (4)	
	β	SE	β	SE	β	SE	β	SE
Constant	.61***	.11	.61***	.11	1.31***	.12	.85***	.13
Return on assets	-.41***	.14	-.41***	.14	-.03	.18	-.42***	.13
Tangibility	-.15***	.05	-.15***	.05	.04	.07	-.14***	.05
Age	-.00	.00	-.00	.00	-.00	.00	-.00	.00
Size	-.00	.01	-.00	.01	-.06***	.01	-.01	.01
Industry	-.11***	.03	-.11***	.03	.03	.05	-.10***	.03
Construction	-.02	.04	-.02	.04	.08**	.05	-.00	.04
Trade	-.00	.03	-.02	.04	.06	.05	-.01	.04
Business-centered goals	.01	.02	.01	.02	-.03	.02	.00	.02
Family-centered goals			c → .01	.01	a → .06***	.02	c' → .02	.01
Family board							b → -.19***	.06
Adj R ²	.10		.10		.15		.13	
F	4.69***		4.23***		6.77***		6.33***	
N	292		292		292		292	

***, ** and * indicate significance at the 1%, 5% and 10% levels respectively

Notes: β , unstandardized coefficient, SE = heteroscedasticity-consistent standard error.

Lower case letters for family-centered goals and family board representation refer to relationships shown in Figure 2.

Table 4 Regression analyses with process macro (Hayes 2013): Long-term debt rate

Variable	Long-term debt rate (1)		Long-term debt rate (2)		Family board representation (3)		Long-term debt rate (4)	
	β	SE	β	SE	β	SE	B	SE
Constant	.21***	.08	.22***	.08	1.42***	.15	.29***	.10
Return on assets	-.07	.09	-.07	.09	-.05	.25	-.07	.10
Tangibility	.28***	.05	.28***	.05	.01	.08	.28***	.05
Age	-.00	.00	-.00	.00	-.00	.00	-.00	.00
Size	-.02**	.01	-.02**	.01	-.07***	.02	-.02**	.01
Industry	.05*	.03	.05*	.03	.00	.05	.05**	.03
Construction	.00	.03	.00	.03	.05	.05	.01	.03
Trade	.02	.02	.02	.02	.03	.05	.02	.02
Business-centered goals	-.01	.01	-.00	.01	-.03*	.02	-.01	.01
Family-centered goals			c → -.00	.01	a → .05***	.02	c' → -.00	.01
Family board							b → -.05	.04
Adj R ²	.24		.24		.16		.25	
F	7.33***		6.44***		6.14***		5.90***	
N	229		229		229		229	

***, ** and * indicate significance at the 1%, 5% and 10% levels respectively.

Notes: Lower case letters for family-centered goals and family board representation refer to relationships shown in Figure 2.

β , unstandardized coefficient, SE = heteroscedasticity-consistent standard error.

Table 5 Regression analyses with process macro (Hayes 2013): Financial debt rate

Variable	Financial debt rate (1)		Financial debt rate (2)		Family board representation (3)		Financial debt rate (4)			
	β	SE	β	SE	β	SE	β	SE		
Constant	.08	.09	.08	.09	1.31***	.12	.25**	.11		
Return on assets	-.24***	.09	-.24***	.09	-.03	.18	-.24***	.09		
Tangibility	.29***	.05	.29***	.05	.03	.07	.29***	.05		
Age	-.00	.00	-.00	.00	-.00	.00	-.00	.00		
Size	.01	.01	.01	.01	-.06***	.01	-.00	.01		
Industry	.01	.03	.01	.03	.03	.05	.01	.03		
Construction	.05	.03	.05	.03	.08	.05	.06*	.03		
Trade	.06**	.03	.06*	.03	.06	.05	.06**	.03		
Business-centered goals	-.01	.01	-.01	.01	-.03*	.02	-.01	.01		
Family-centered goals			c →	.00	.01	a →	.06***	.02	c' →	.01
Family board							b →	-.13***	.04	
Adj R ²	.13		.13		.16		.15			
F	6.74***		5.97***		6.85***		6.89***			
N	292		292		292		292			

***, ** and * indicate significance at the 1%, 5% and 10% levels respectively

Notes: β , unstandardized coefficient, SE = heteroscedasticity-consistent standard error.

Lower case letters for family-centered goals and family board representation refer to relationships shown in Figure 2.

Table 6 Regression analyses with process macro (Hayes 2013): Nonfinancial debt rate

Variable	Nonfinancial debt rate (1)		Nonfinancial debt rate (2)		Family board representation (3)		Nonfinancial debt rate (4)			
	β	SE	β	SE	β	SE	β	SE		
Constant	.18***	.07	.18***	.07	1.32***	.12	.27***	.08		
Return on assets	-.12	.07	-.12	.07	-.06	.14	-.12	.07		
Tangibility	-.14***	.04	-.14***	.04	.04	.07	-.14***	.04		
Age	-.00**	.00	-.00**	.00	-.00	.00	-.00**	.00		
Size	.01	.01	.01	.01	-.06***	.01	.00	.01		
Industry	.01	.02	.01	.02	.03	.05	.01	.02		
Construction	.06**	.02	.06**	.02	.08	.05	.06**	.02		
Trade	.05*	.03	.05*	.03	.06	.05	.05**	.03		
Business-centered goals	.02*	.01	.02	.01	-.03*	.02	.01	.01		
Family-centered goals			c →	.00	.01	a →	.06***	.01	c' →	.00
Family board							b →	-.06*	.04	
Adj R ²	.11		.10		.16		.11			
F	6.74***		5.98***		6.77***		5.94***			
N	291		291		291		291			

***, ** and * indicate significance at the 1%, 5% and 10% levels respectively

Notes: β , unstandardized coefficient, SE = heteroscedasticity-consistent standard error.

Lower case letters for family-centered goals and family board representation refer to relationships shown in Figure 2.

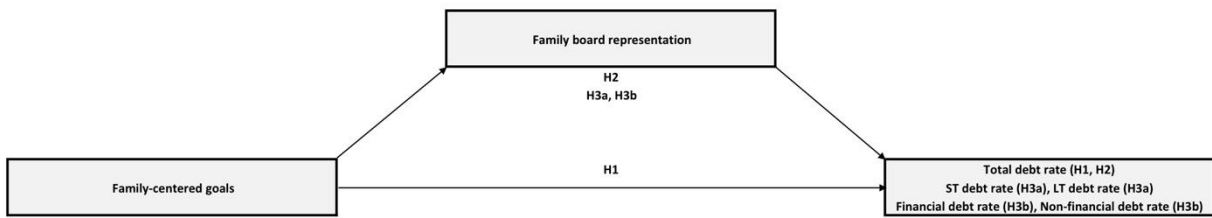


Figure 1 Research framework

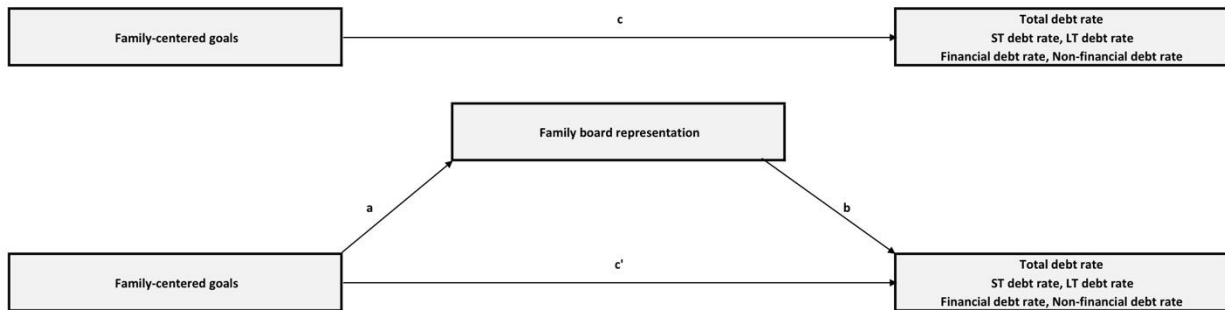


Figure 2 Research models: Total, direct, indirect effects

Appendix

Appendix 1: Alternative model tests with interaction effects

Variable	Total debt rate		Short-term debt rate		Long-term debt rate		Financial debt rate		Non-financial debt rate	
	β	SE	β	SE	β	SE	β	SE	β	SE
Constant	.81***	.12	.70***	.11	.23***	.08	.14	.09	.20***	.07
Return on assets	-.41***	.14	-.42***	.13	-.08	.10	-.25***	.09	-.12*	.07
Tangibility	.13**	.06	-.14***	.05	.28***	.05	.29***	.05	-.14***	.04
Age	-.00*	.00	-.00	.00	-.00	.00	-.00	.00	-.00**	.00
Size	-.01	.01	-.01	.01	-.02**	.01	-.00	.01	.01	.01
Industry	-.09**	.04	-.10***	.03	.05*	.03	.01	.03	.01	.02
Construction	.01	.04	-.00	.04	.00	.03	.06*	.03	.06***	.02
Trade	-.00	.04	-.01	.04	.02	.02	.06**	.03	.05*	.03
Business-centered goals	-.01	.02	.00	.02	-.01	.01	-.01	.01	.01	.01
Family-centered goals (FCG)	.02	.01	.02	.01	-.00	.01	.01	.01	.00	.01
Family board representation (FBR)	-.22***	.07	-.17***	.06	-.04	.04	-.12***	.04	-.05	.04
FCG x FBR	.05	.05	.04	.05	.06*	.03	.02	.04	.04	.03
Adj R ²	.11		.14		.25		.15		.12	
F	4.91***		5.69***		6.23***		6.44***		5.33***	
N	288		292		229		292		291	

***, ** and * indicate significance at the 1%, 5% and 10% levels respectively

Notes: β , unstandardized coefficient, SE = heteroscedasticity-consistent standard error.