



The Influence of Family Firm Heterogeneity on a Zero-Leverage Ratio

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Abstract. This study investigates why some family firms adopt zero-leverage policies by examining heterogeneity in their goals and governance structures. While prior research has largely focused on differences between family and non-family firms, we highlight the substantial variation within the family firm population itself. Drawing on agency theory and the socioemotional wealth (SEW) perspective, we integrate both economic and behavioral explanations of financing behavior. Using survey-based measures of SEW importance (SEWi) combined with financial data from 248 Belgian private family firms, we provide the first direct test of SEW as a determinant of zero-leverage. Our results reveal that goal-based heterogeneity matters: certain SEW dimensions increase the probability of maintaining zero leverage, whereas others reduce it. Governance-related factors also play a role, as the presence of a non-family CEO and passive shareholders are positively associated with a zero-leverage stance. Moreover, by distinguishing between zero total debt and zero long-term debt, we capture differences in their respective drivers and interdependence. These findings show that financial conservatism in family firms cannot be explained solely by agency costs or classical finance theories. Instead, heterogeneity in family goals and governance provides a more nuanced understanding of zero-leverage adoption. The study contributes to research on capital structure, family firm heterogeneity, and behavioral finance, offering insights for both scholars and practitioners.

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La influencia de la heterogeneidad de la empresa familiar en la ratio de endeudamiento cero

Resumen. Este estudio investiga por qué algunas empresas familiares adoptan políticas de apalancamiento cero, examinando la heterogeneidad en sus objetivos y estructuras de gobierno corporativo. Si bien la investigación previa se ha centrado principalmente en las diferencias entre empresas familiares y no familiares, destacamos la variación sustancial que existe dentro de la propia población de empresas familiares. Partiendo de la teoría de agencia y la perspectiva de la riqueza socioemocional, integramos explicaciones tanto económicas como conductuales del comportamiento de financiación. Utilizando medidas basadas en encuestas sobre la importancia de la riqueza socioemocional, combinadas con datos financieros de 248 empresas familiares privadas belgas, ofrecemos la primera prueba directa de la riqueza socioemocional como determinante del apalancamiento cero. Nuestros resultados revelan que la heterogeneidad basada en objetivos es relevante: ciertas dimensiones de la riqueza socioemocional aumentan la probabilidad de mantener un apalancamiento cero, mientras que otras la reducen. Los factores relacionados con el gobierno corporativo también desempeñan un papel, ya que la presencia de un director ejecutivo no familiar y de accionistas pasivos se asocia positivamente con una posición de apalancamiento cero. Además, al distinguir entre deuda total nula y deuda a largo plazo nula, captamos diferencias en sus respectivos determinantes e interdependencia. Estos hallazgos muestran que el conservadurismo financiero en las empresas familiares no puede explicarse únicamente mediante los costes de agencia o las teorías clásicas de las finanzas. En cambio, la heterogeneidad en los objetivos y el gobierno corporativo familiar ofrece una comprensión más matizada de la adopción de políticas de apalancamiento cero. El estudio contribuye a la investigación sobre estructuras de capital, heterogeneidad de empresas familiares y finanzas conductuales, aportando perspectivas tanto para académicos como para profesionales.

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1. Introduction

A substantial body of evidence shows that many firms operate with lower leverage ratios than predicted by traditional finance theories such as the trade-off and the pecking order theory (e.g., Devos et al., 2012; Graham, 2000; Korteweg, 2010). The most extreme manifestation of such financial conservatism is the zero-leverage phenomenon, referring to companies that carry no outstanding debt (Strebulaev & Yang, 2013). Zero-leverage firms are far from marginal. Strebulaev and Yang (2013), for instance, document that an average of 10% of large U.S. publicly listed nonfinancial firms were debt-free between 1962 and 2009. In addition, Bessler et al. (2013) report that over 25% of firms in their 2011 international sample followed a zero-leverage policy. This increase appears to be a global trend, observable among both publicly listed (El Ghouli et al., 2018) and private firms (Lefebvre, 2021; Sardo et al., 2024).

This development is puzzling, as persistent zero-leverage levels among firms challenge the predictions of classical finance: forgoing the tax benefits of debt is typically viewed as suboptimal (Graham, 2000). Therefore, scholars started to look for drivers and explanations for this puzzling finance behaviour and found out that - among other factors such as financial constraints, dividend policies and financial flexibility (Saona et al., 2023) - family ownership is an important antecedent, i.e., family firms are more likely to adopt a zero-leverage policy than their nonfamily counterparts (e.g., Domenichelli, 2019; Fardnia et al., 2023; Strebulaev & Yang, 2013). These pioneering studies mostly differentiate between family and non-family firms, overlooking the well-documented heterogeneity within the family firm population (e.g., Abella-Garcés & Ferrer, 2022; Arteaga & Basco, 2023; Daspit et al., 2021). Indeed, differences within family firms may be as substantial as, or even greater, than those between family and non-family firms (Chua et al., 2012; Nordqvist et al., 2014). Surprisingly, family firm-specific heterogeneity antecedents (e.g., different levels of family involvement in ownership, management and governance) have not yet been systematically examined in the context of zero-leverage. This is a striking omission, given that family firms are the dominant organisational form worldwide and follow a distinctive financial logic shaped by idiosyncratic family as well as business factors (Gallo et al., 2004; Jansen et al., 2023; Vekemans et al., 2025). For example, extant research shows that decision-making in family firms is not guided solely by economic goals such as shareholder value maximization but also by the preservation of socioemotional wealth

(SEW): the non-financial value families derive from their involvement in the firm, such as, for example, control or transgenerational succession motives (Gómez-Mejía et al., 2007). But prior research also found that there is a substantial variation in SEW motives across family firms. Family firms thus not only vary considerably in their governance structures but also in their SEW priorities (Blanco-Mazagatos et al., 2024; Chrisman et al., 2013). Unfortunately, we have a limited understanding about the impact of these family firm specific factors on the adoption of a zero-leverage policy.

Against this backdrop, the objective of this paper is to investigate the antecedents of zero-leverage policies in family firms by focusing on (1) SEW motives and (2) governance and agency structures, including family involvement in management and boards, the presence of non-family CEOs and passive shareholders. We draw on a unique dataset of 248 Belgian small and medium-sized family firms. These two sets of antecedents are particularly relevant because SEW preservation is widely recognized as a central driver of strategic decision-making in family firms, including financing choices (Muñoz-Bullón et al., 2024; Jansen et al., 2023), and governance and agency conditions such as family involvement at the top management, board and ownership strongly influence financing behaviour (Comino-Jurado et al., 2021a, 2021b; Michiels & Molly, 2017; Waldkirch, 2020). Therefore, we will use an SEW and agency theory lens to build our hypotheses. Our results show that, concerning the SEW dimensions, family prominence has a positive effect on zero-long term leverage ratios while family enrichment has a negative association with zero total leverage. In addition, nonfamily CEOs and higher passive shareholdings have a positive effect on zero long-term leverage. Outside directors are positively associated with zero total leverage.

This paper contributes to the literature in several ways. First, most prior research has relied primarily on agency theory, even though financing decisions are also shaped by non-economic considerations such as risk-taking propensity, emotional attachment, and family goals (Berrone et al., 2012; Michiels & Binz, 2025; Romano et al., 2001). Given that family firm financing is strongly influenced by control retention and loss aversion (Burgstaller & Wagner, 2015; González et al., 2013; Schmid, 2013), the SEW perspective provides a valuable complementary, but so far overlooked, theoretical lens to the agency perspective for explaining the adoption of zero-leverage policies.

Second, we test SEW arguments in the study of family firms' zero-leverage financing behaviour by

employing direct measures of SEW. Specifically, we use the SEW_i (importance) scale developed by Debicki et al. (2016), based on survey data, and combine it with financial data from the Belfirst database (Bureau Van Dijk). This allows us to construct a unique dataset and directly assess the varying impact of different SEW dimensions. While prior research has suggested SEW as a potential motive for zero-leverage policies (Fardnia et al., 2023), the concept and its distinct dimensions have not yet been measured directly and tested as an antecedent of the adoption of a zero-leverage policy in family firms.

Third, we contribute to the family firm heterogeneity debate. Michiels and Molly (2017) found in their literature review that heterogeneity in family firms is often neglected in research about financing decisions in family firms. Although some studies started to investigate heterogeneity aspects of family firms on leverage decisions in general (e.g., Muñoz-Bullón et al., 2024), the observation about the lack of finance studies on heterogeneity in family firms still stands to date (Vekemans et al., 2025). In our study, we will address this important gap by integrating SEW in the zero-leverage debate as a goal-related source of heterogeneity, and different governance structures (e.g., management, board, shareholders) as governance-based sources of heterogeneity (Chrisman et al., 2013).

Fourth, most studies measure zero-leverage using book leverage, defined as the sum of long-term debt and debt in current liabilities, including long-term debt due within one year (Strebulaev & Yang, 2013). However, long-term debt often has distinct determinants compared to short-term debt -for example, tangibility (Ginesti et al., 2023; Ramalho et al., 2018) - and typically represents a large share of total debt. Despite this observation, its role in shaping total leverage is frequently overlooked in conventional zero-leverage models. To address this empirical challenge, we distinguish between zero total debt and zero long-term debt and estimate their determinants simultaneously using a Seemingly Unrelated Bivariate Probit model. This approach exploits cross-equation error correlations, improves estimation efficiency relative to separate OLS regressions (Wooldridge, 2010), and allows us to uncover the drivers of both zero-leverage measures while explicitly accounting for the interdependence between long-term and total debt.

The remainder of the paper is organized as follows. Section 2 reviews the relevant literature. Section 3 describes the data and methods. Section 4 presents and discusses the results. Section 5 concludes and outlines avenues for future research.

2. Literature Review and Hypotheses

2.1. Zero-leverage phenomenon

Research on zero-leverage policies identifies two main explanations for the existence of this phenomenon: firms that choose not to use debt to maintain control and avoid covenants, on the one hand; and lack of access to debt due to information asymmetry or risk factors on the other hand. These firms usually have a substantial asymmetric information problem as they do not have established long-term financial records, such as those found in young, small firms with fewer assets (Bigelli et al., 2014; Devos et al., 2012). Consequently, loan officers will classify the firm as too risky and ration credit (Bigelli et al., 2014). Moreover, Bessler et al. (2013) and Devos et al. (2012) indicated that being financially constrained is the primary explanation for retaining a zero-leverage policy for a longer period.

When firms that are not financially constrained opt for a zero-leverage policy, they may look for financial flexibility (Bessler et al., 2013). The firms stockpile financial slack or debt capacity for a short time to get easier access to debt when needed (Bessler et al., 2013; Minton & Wruck, 2002). Firms that consciously follow a zero-leverage policy are often more profitable and have higher cash balances (Strebulaev & Yang, 2013). Moreover, they are more likely to pay higher dividends, which improves their reputation.

Next to all financial antecedents of a zero-leverage policy, Strebulaev and Yang (2013) also studied different aspects of governance, such as CEO ownership and the independence of the board of directors, which may impact the decision to follow a zero-leverage policy. Their arguments are based on the link between managerial preferences and corporate actions that have previously been found in the literature. Their results showed that when a CEO has a larger ownership stake, the firm is substantially more likely to have a zero-leverage ratio. Firms with a larger board of directors or with more independent directors are less likely to follow a zero-leverage policy as the power of the CEO becomes limited.

2.2. Zero-leverage in family firms

Strebulaev and Yang (2013), Domenichelli (2019) and Devos et al. (2012) investigated the zero-leverage phenomenon in family firms vis-à-vis nonfamily firms. They conclude that family firms are more likely to follow a zero-leverage policy than non-family firms (Domenichelli, 2019; Strebulaev & Yang, 2013). However, by comparing family versus non-family firms, researchers have

neglected family- and individual-level variables that may explain the firm's behaviour (Sharma et al., 2020). Therefore, a simple comparison between family and non-family firms does not provide insights into the antecedents of a zero-leverage policy within family firms (Payne, 2018). Only Ramalho et al. (2018) and Fardnia et al. (2023) focused in their zero-leverage research on heterogeneous firm-level characteristics, such as size, location, financial constraints and insider ownership but could not reveal significant effects of these firm level characteristics. Until now, the integration of family firm-specific heterogeneity has thus been neglected. The relationship between the family and the business is not the same in every family firm, as the family affects the business, and vice versa, which can vary widely across organizations (Payne, 2018). Not only the firm's characteristics, goals, and values, but also the family itself influences, through different behaviours and decisions, both the financial and non-financial outcomes for the business and the family (Payne, 2018). The differences in the characteristics, goals, and values result in different family firm behaviour, thus pointing to substantial heterogeneity among family firms (Daspit et al., 2021). Therefore, we will focus on the differences in family goals and in governance of the family firm. Both sources of family business heterogeneity will play a pivotal role in how the decisions are made in the firm and how the firm is seen by external parties, thereby influencing the probability of having a zero-leverage ratio.

2.3. Family firm heterogeneity as a determinant of the zero-leverage ratio

Chrisman et al. (2013) indicated that there are different dimensions along which family firms differ, such as family goals and family involvement in governance (Chrisman et al., 2013). Family firms can differ concerning the importance attached to family goals, such as the intention to transfer the firm to the next generation, which is rooted in the socio-emotional wealth perspective (Gómez-Mejía et al., 2007). Apart from that, family firms can differ in the extent of family involvement in the firm's governance, including ownership, management, and the board of directors. In the following sections, we will elaborate on these two dimensions of family firm heterogeneity and their relationship with the zero-leverage phenomenon.

2.3.1. Goal-based heterogeneity

González et al. (2013) Schmid (2013), and Burgstaller and Wagner (2015) indicated that family firms consider two elements when making financing decisions: retention of control and

risk aversion. On the one hand, family owners are reluctant to use financing sources, which dilute their perceived control over the family firm. On the other hand, using more bank debt increases the probability of default and is thus risk-enhancing. This illustrates the complexity of the leverage decision in family firms. Family control and loss aversion can be found as two core concepts of the SEW perspective (Gómez-Mejía et al., 2007), a behavioural theory. The SEW perspective suggests that the motives of individuals in a company go beyond purely economic goals to include preserving the family's emotional and social attachment to the firm. This means that the strategic decisions must consider how they affect the family's affective needs, such as maintaining family identity, reputation, and emotional connection to the business. Prior research found a negative relationship between SEW and debt levels (Baixauli-Soler et al., 2021). It is thus likely that SEW will also influence the zero-leverage policy. More specifically, it may mainly explain the willingness to acquire debt. The importance attached to SEW will thus impact family firms' willingness to use various financing sources, including debt (Kotlar et al., 2018; Vandemaele & Vancauteren, 2015). When a family firm needs to preserve its SEW, it will become one of its goals. The importance of the preservation of SEW will differ between family firms and can thus be seen as a goal-related source of heterogeneity. Debicki et al. (2016) capture the importance of SEW on a scale with three dimensions: family prominence, family continuity, and family enrichment.

Family prominence concerns "the importance of how the family, as business owners, is perceived by the community" (Debicki et al., 2016, p.51). This dimension not only focuses on the recognition and appreciation of the family, but also on social relationships developed through the business and the family's reputation. Family prominence concerns are part of the behavioural dimension identified by Saona et al. (2023) as underexplored in zero-leverage research, where reputation concerns create loss aversion regarding potential financial distress (Gómez-Mejía et al., 2014). High importance placed on family prominence may cause family firms not to focus on financial benefits solely, but more on socioemotional gains when evaluating projects (Gómez-Mejía et al., 2021). For example, elevating the local employment might be more important than its financial returns. Additionally, Gómez-Mejía et al. (2021) discussed that, in difficult circumstances, family firms can fall back to their network. Due to their strong relationships with the actors in their network (Laffranchini et al., 2020), the family firm can be confident that it

will be helped when needed. Indeed, beyond financial intermediaries, family firms may also draw on alternative financing sources rooted in their network relationships, such as trade credit from suppliers (Jansen et al., 2023; Lappalainen & Niskanen, 2013; Rivera-Franco et al., 2025). These alternative and potentially substituting financing sources may reduce the need for traditional bank debt, thereby reinforcing zero leverage tendencies in family firms with high family prominence.

We can extend this reasoning to the zero-leverage phenomenon. While traditional finance theory suggests that debt financing may be optimal, family prominence concerns create behavioural biases toward financial conservatism. However, family firms sometimes avoid using debt because in case of repayment problems, their reputation will be affected negatively. Thus, to protect the family firm's reputation, less or even no debt financing will be used due to the risk of failing to pay back the loans (Ramalho et al., 2018; Romano et al., 2001). When family identity is closely tied to business reputation, zero leverage can serve as a credible signal of financial stability that protects the family's social standing. We thus argue that the more important family prominence is, the lower the probability that the firm will use debt and thus the higher the probability of a zero-leverage policy.

H1a: The importance attached to family prominence is positively related to a zero-leverage ratio.

The second dimension, family continuity, captures "the importance to family decision-makers of preserving family control and involvement in the business" (Debicki et al., 2016, p. 51) and includes as key elements unity of the family, family dynasty, and family values. The family works together to make business decisions that are also good for the future generations (Debicki et al., 2016). The family will see the firm as a long-term investment (Chrisman & Patel, 2012; Sirmon & Hitt, 2003), whereby the firm remains in the hands of the family.

In order to keep the firm in the family's hands and ensure long-term survival, the family will limit any risk that would influence the retention of control (Chrisman & Patel, 2012). When family continuity is paramount, families seek financial security and a stable future for the firm, enabling essential investment and guaranteeing long-term growth and profitability. In the case of debt financing, any level of debt introduces external monitoring that threatens this continuity vision. Even with minimal debt, banks monitor the firm to verify repayment capacity, creating external oversight that is absent with zero leverage. This

monitoring represents a fundamental threat to the family's ability to make decisions based solely on long-term continuity goals rather than short-term financial performance. Accordingly, Burgstaller and Wagner (2015) and González et al. (2013) argued that when families prioritize maintaining control for future generations, they avoid debt financing. To diminish external influence and preserve full family control for continuity purposes, firms may then more likely opt for a zero-leverage policy.

H1b: The importance attached to family continuity is positively related to a zero-leverage ratio.

The third dimension, family enrichment, indicates "the significance of the desire to fulfil a broader range of obligations toward family members to enhance the harmony of the family as a whole" (Debicki et al., 2016, p. 51). When this dimension is highly important, the happiness and needs of the family (both inside and outside the business) are considered essential. Family enrichment can also enhance family harmony, as business decisions will thus focus on what is good for the family in the future and less on direct financial benefits (Gómez-Mejía et al., 2021). It induces altruistic behaviour and risk-averse actions (Bjuggren et al., 2012) to protect family harmony. When family enrichment is highly important, families prioritize meeting the diverse needs and welfare of all family members, both inside and outside the business (Gómez-Mejía et al., 2021). This focus on family welfare often translates into higher dividend distributions to ensure family members' financial well-being and maintain family harmony (Michiels et al., 2015). However, these dividend payments reduce internal cash flows available for business investments. When firms need to fund essential investments while maintaining dividend payments for family enrichment purposes, they must seek external financing. Previous research has found that family firms follow a specific pecking order, in which debt financing is their preferred external source after internal financing (Jansen et al., 2023). This creates a clear trade-off: firms emphasizing family enrichment through dividends will more readily accept debt to finance growth, as debt allows them to simultaneously satisfy family financial needs and business investment requirements. Thus, we argue that the chance of a zero-leverage policy will be lower when family enrichment is important.

H1c: The importance attached to family enrichment is negatively related to a zero-leverage ratio.

2.3.2. Governance-based heterogeneity

Many studies use agency theory to explain the debt ratio in firms. Traditional agency theory predicts that family ownership and management mitigate potential principal-agent conflicts. Indeed, agency problems may occur when ownership and control are separated, a situation less common in private family firms (Fama & Jensen, 1983). Moreover, family bonds and parental altruism will withhold family agents from demonstrating self-serving behaviour (Schulze et al., 2003). In addition, the concentration of ownership in the hands of family members places the family in a solid position to monitor the management team. It alleviates agency problems such as asset substitution behaviour (Steijvers & Voordeckers, 2009). Family owners usually have a longer investment horizon and focus on the firm's long-term survival (Sirmon & Hitt, 2003). These characteristics reduce agency costs of debt and, consequently, the risk for debtholders (Steijvers et al., 2010). Following these arguments, banks will thus more easily supply debt to family firms, which might reduce the probability of a zero-leverage policy.

However, other studies argue that, when ownership and control are not separated, the unchallenged discretion of family owners may lead to self-control problems (Lubatkin et al., 2005), such as risk-shifting behaviour, excessive compensation (Anderson & Reeb, 2003), nepotism (Pérez-González, 2006) and managerial entrenchment (Gomez-Mejia et al., 2001) which may harm the interests of debtholders. These potential agency problems may make financial institutions more cautious and vigilant when dealing with family firms, potentially increasing the probability of a zero-leverage policy. Therefore, whether banks are eager to extend bank debt will depend on the extent of agency costs the specific family firm incurs.

To minimize agency costs, different governance tools can be used (Chrisman et al., 2004; Domenichelli, 2019; Nordqvist et al., 2014). Governance mechanisms, such as the board of directors, may serve as a mechanism to deal with conflicts and to distribute power among people. In family firms, governance mechanisms can thus regulate the family involvement in ownership and management (Chrisman et al., 2013) and make the problems occurring from the convergence of management and ownership less severe. These mechanisms will thus capture the governance-related heterogeneity in the family firm.

The agency framework is particularly relevant for understanding zero-leverage in family firms because, as Saona et al. (2023) note, governance and agency structures remain an overlooked category of determinants in existing

research. One of the governance mechanisms we focus on is the top management team. The top management team can consist of family and non-family members. Family members are often included in the management team to maximize the achievement of family goals and to remain in control of the family firm (Chrisman et al., 2014; Chua et al., 2009). Hiring non-family managers is often based on business goals, rather than non-family goals such as preserving SEW (Chrisman et al., 2014). Accordingly, hiring non-family managers can be seen by creditors as a form of professionalization of the family firm (Stewart & Hitt, 2012). This impression of professionalism will influence agency costs. Non-family managers will limit self-control problems (Lubatkin et al., 2005). Indeed, they keep an eye on the decisions made to prevent these decisions from focusing only on the family's welfare and not on the company's welfare. This results in lower agency costs when acquiring debt. Based on these arguments, we expect that a higher proportion of family managers in the management team results in higher agency costs, which results in a higher probability of a zero-leverage ratio.

H2: The extent of family involvement in management is positively related to a zero-leverage ratio.

In the top management team, the CEO has the most power (Voordeckers et al., 2007; Waldkirch, 2020; Westhead, 1999). Like the other positions in the top management team, it can be held by a family or non-family member. Letting a non-family CEO run the family firm will thus even be a more important indication of the professionalization (Stewart & Hitt, 2012), as the non-family CEO will prevent emotions from severely influencing the decision-making process (Goel et al., 2013). From a demand-side perspective, when a non-family CEO is present, reducing conflicts of interest between principals requires maintaining a level of debt that enables creditors to monitor the non-family CEO's performance, thereby mitigating managerial opportunism (Blanco-Mazagatos et al., 2007). This demand-side mechanism lowers agency costs. Due to their position, non-family CEOs can exert significant influence on the firm's financial structure (Waldkirch, 2020). Non-family CEOs create distinct agency dynamics because, unlike family CEOs who bear both ownership and reputational costs of financial distress, non-family CEOs face asymmetric risk exposure: they can benefit from the upside potential of more debt (e.g. growth and empire building), but apart from career consequences of failure, they do not fully capture the downside risks. This asymmetry might create incentives for less conservative financial policies for non-family CEOs. Indeed,

Amore et al. (2011) find that when a non-family CEO is leading the firm, the use of debt increases significantly. This debt enables non-family CEOs to invest more. Also, previous research by Baixauli-Soler et al. (2021) indicates that having a family CEO reduces the debt level. Therefore, we argue that a non-family CEO will use more debt, reducing the probability of a zero-leverage ratio.

H3: Having a non-family CEO is negatively related to a zero-leverage ratio.

Another potentially important, but up to now overlooked, category of corporate governance mechanisms that may influence zero-leverage decisions, is non-family involvement in the board (Saona et al., 2023). After all, critical decisions, such as financing decisions, are one of the primary responsibilities of the board of directors (Koropp et al., 2014). When the board mainly consists of family members, it will be easier for the family to remain in control over these decisions. However, when external directors are included on the board, the focus on family goals will be tempered (Anderson & Reeb, 2004; Chrisman & McMullan, 2004), and there will be greater emphasis on business goals. Due to this monitoring of self-interests by the board's external members, the agency costs will be reduced (Voordeckers et al., 2007). Therefore, we argue that as non-family involvement in the board of directors increases, debt will be more readily available and preferred, resulting in a lower probability of a zero-leverage ratio.

H4: The extent of non-family involvement in the board of directors is negatively related to a zero-leverage ratio.

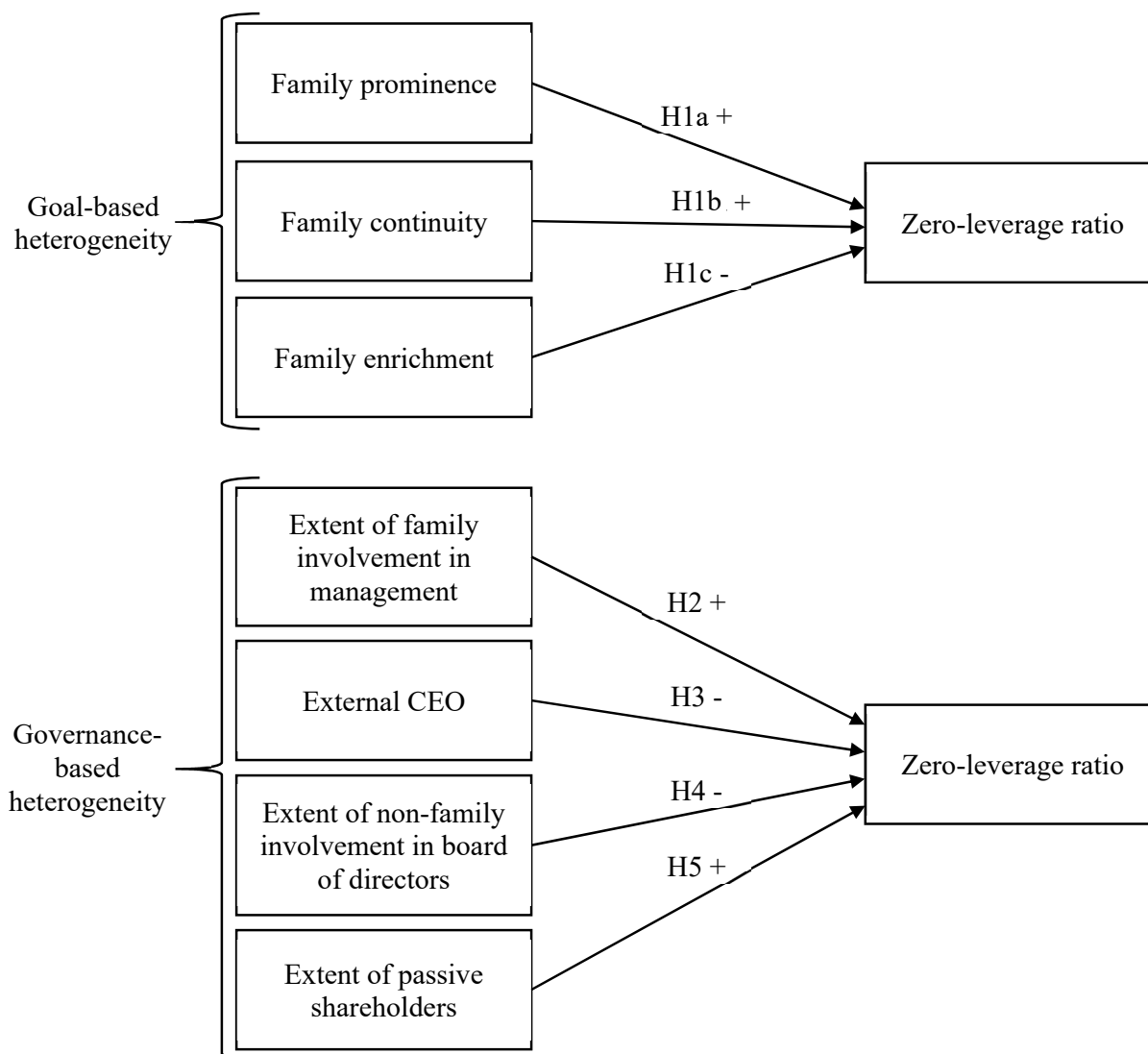
Finally, we focus on the ownership of the family firm as a governance mechanism. In a later-generation firm, ownership can become more dispersed. The family will be more extended, resulting in more passive family shareholders, not working in the firm (Lubatkin et al., 2005; Schulze et al., 2003). When having more passive shareholders, the chances of intra-familial principal-principal conflicts increase (Schulze et al., 2001; Stewart & Hitt, 2012) as the interests of passive and active shareholders may diverge. These conflicts generate more information asymmetry and agency problems (Kellermanns & Eddleston, 2007; Michiels & Binz, 2025). From a demand-side perspective, as ownership becomes more dispersed across generations, passive shareholders may shift their focus from business growth to wealth preservation (Comino-Jurado et al., 2021a). Second (and subsequent) generation

owners could tend to become more risk-averse and less concerned with growing the firm than with protecting the family's accumulated wealth, thereby reducing the need for external financing such as debt (Comino-Jurado et al., 2021a).

Additionally, they might lead to more conservative financial strategies as a consensus-building mechanism (Gersick et al., 1997). These conservative strategies will also influence the use of debt. Indeed, Molly et al. (2012) find that debt levels are lower in the second and later generations than in the first. We will thus argue that when there are more passive shareholders, the probability of a zero-leverage policy will be higher.

H5: The extent of passive shareholdings is positively related to a zero-leverage ratio.

The research framework of this study is summarized in Figure 1.

Figure 1. Research framework

3. Data, Variables, and Method

3.1. Data

To examine the influence of family-specific characteristics on a zero-leverage policy, we used a unique dataset consisting of survey data combined with financial data from the Bel-first database (Bureau Van Dijk). First, an online survey was sent out to 5,005 CEOs. The email addresses for survey distribution were purchased from Trends Business Information, a leading Belgian business database provider. The sampling frame was constructed using specific selection criteria: firms located in the Flemish region, privately held, with 10 to 500 employees (thereby excluding micro-firms with less than ten employees), organized as limited liability companies (NV or BVBA), excluding non-profit

organizations, financial institutions, education and public administration sectors or holdings. The final database contained email addresses for 5,005 companies, ensuring compliance with GDPR regulations through Trends Business Information's verified opt-in procedures.

The e-mails were sent out in December 2019, followed by two reminders: the first one after eight days, and the second one after 29 days after the first email. We received 546 responses, which corresponds to a response rate of 10.91%. This aligns with previous studies of privately held firms that target CEOs (Berent-Braun & Uhlaner, 2012; Cruz et al., 2010; Michiels et al., 2015). As selecting only family firms ex-ante was impossible, we coded these firms afterward. Based on our definition of a family firm: a firm in which a family has at least 50% of the shares and/or a firm that is perceived to be a family firm (Miller &

Le Breton-Miller, 2006; Voordeckers et al., 2007), our sample contains 414 family firms. The survey data is supplemented with data from a secondary source, the Bel-First database by Bureau Van Dijk, containing accounting statements of all Belgian firms. Using two different data sources, the risk of common method bias is mitigated since several control variables result from a database external to the survey. Due to missing variables in the survey or the Bel-first database, our final sample is 248 family firms.

3.2. Variables

3.2.1. Dependent variables

To capture the zero-leverage policy, we use two distinct measures namely zero total leverage (ZL) and zero long-term leverage (ZLTL). We define total leverage as the book value of the amount of long-term debt, debt in current liabilities plus long-term debt due within one year. Long-term leverage is defined as the book value of the amount of long-term debt exceeding maturity of one year (Strebulaev & Yang, 2013). We code both zero-leverage measures as 1 when the outstanding amount of total leverage (ZL) or long-term leverage (ZLTL) in 2019 is equal to zero, and 0 otherwise. In contrast to most prior studies, we also focus on long-term financial debt in this study. Long-term debt and total debt are by consequence related as long-term debt is usually an important component of total debt. To account for this distinction and to capture the relationship between the two leverage variables, we differentiate between zero total debt and zero long-term debt and estimate their determinants simultaneously in a Seemingly Unrelated Bivariate Probit regression model (see also section 3.3).

3.2.2. Explanatory variables

The explanatory variables are based on two sources of heterogeneity: the goal-based and the governance-based heterogeneity. To measure goal-based heterogeneity, we rely on SEW. In this paper, SEW will be measured via the socioemotional wealth importance scale (SEW_i scale) of Debicki et al. (2016). The scale consists of nine statements which are scored on a 7-point Likert scale by the CEOs of the family firms. These nine statements are grouped in three dimensions: family prominence, continuity, and enrichment. These three dimensions are constructed based on the average score on the statements related to the dimension and will be used in our analysis. For the governance-based heterogeneity, we include four governance variables. These variables are family managers (% of family managers in the top management team), non-family CEO (dummy variable that equals 1 if the firm has an external

CEO and equals 0 if there is a family CEO), outside directors (% of outside directors in the board of directors), and the passive shareholders (% of shares in the hands of family members who are not employed in the firm).

3.2.3. Control variables

We include four control variables that may influence a firm's zero-leverage ratio: firm size (natural log of assets), firm age, tangibility (fixed assets/total assets), and dividend policy (dividends/total assets). Tangibility is included only in the ZLTL regression model, as it is particularly relevant for securing long-term debt. In addition, introducing one distinct explanatory variable in each regression equation provides additional variation and improves estimation efficiency compared to separate OLS regressions. Therefore, we include the tangibility variable only in the ZLTL regression. Smaller, younger firms with fewer tangible assets typically face greater difficulties in accessing debt, increasing the likelihood of adopting a conservative financial policy. Dividend policy is also controlled for, as firms able to pay dividends are less likely to be financially constrained (Dang, 2013).

The base year is 2019 for all variables. To control for outliers, the variables are winsorized at 1% and 99% (Bacci et al., 2017). The control variables are lagged by one year in order to avoid constructed correlations between the control variables and the dependent variable (Bessler et al., 2013; Strebulaev & Yang, 2013).

3.3. Method

We analyse the data using descriptive statistics, mean comparisons, and a Seemingly Unrelated Bivariate Probit regression model to examine the influence of family firm heterogeneity on our zero-leverage measures (Wooldridge, 2010). Specifically, we differentiate between zero total debt and zero long-term debt and estimate their determinants simultaneously. Although long-term debt typically constitutes a major share of total debt, its effect on total leverage is often overlooked in conventional models. By estimating a system of two regressions, we account for this relationship, exploit cross-equation error correlations, and improve efficiency relative to separate OLS regressions (Wooldridge, 2010). This empirical approach allows us to identify the drivers of the two zero-leverage measures while accounting for the relationship between long-term and total debt. The probit regression technique is used as our two dependent leverage measures are dichotomous variables.

4. Results

4.1. Descriptive analyses

Our sample primarily comprises manufacturing and retail firms (64%), with most being medium-sized (77% with 10-50 employees) and mature

(69% between 26-50 years old). 25.4% of firms are zero-leveraged, which is comparable to Strebulaev and Yang's (2013) finding of 26.9%. Management structure shows 56% family managers, 25% external CEOs, 15% external board members, and 9.25% passive family shareholders.

Table 1. Descriptive statistics and t-tests between means

Variable	Mean	Std. Dev.	Min	Max	Non-ZLTL	ZLTL	t	Non-ZL	ZL	t
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
SEWi Prominence	4.22	1.51	1	7	4.184	4.328	-0.657	4.233	4.163	0.276
SEWi Continuity	4.72	1.57	1	7	4.760	4.614	0.640	4.779	4.457	1.223
SEWi Enrichment	4.56	1.55	1	7	4.677	4.201	2.120**	4.637	4.171	1.802*
Family managers	0.56	0.35	0	1	0.559	0.547	0.231	0.563	0.523	0.682
Non-family CEO	0.25	0.43	0	1	0.205	0.365	-2.565**	0.224	0.349	-1.726*
Outside directors	0.15	0.24	0	1	0.138	0.178	-1.169	0.133	0.219	-2.162**
Passive shareholders	9.25	23.12	0	100	7.119	15.500	-2.512**	7.805	16.128	-2.163**
Size (ln)	1.18 x 10 ⁷	3.87 x 10 ⁷	3,14 x 10 ⁵	5.76 x 10 ⁸	15.469	15.320	0.933	15.473	15.228	1.335
Age (ln)	35.69	12.52	20	93	3.527	3.509	0.383	3.516	3.552	-0.683
Tangibility	0.81	0.28	0.01	1	0.841	0.721	2.947***	0.813	0.798	0.330
Dividends	0.03	0.07	0.00	0.41	0.027	0.034	-0.645	0.025	0.046	-1.637

Notes: For Size and Age, descriptive statistics represent absolute values, while the regression analysis uses their natural logarithm; *, **, and *** represent significance at 10%, 5%, and 1% levels, respectively; N=248.

4.2. Comparison of the means

Our analysis reveals significant differences between zero long-term leverage and non-zero long-term leverage firms for SEWi enrichment, non-family CEO presence, passive shareholder ownership, and tangibility. Zero long-term leverage family firms show lower SEWi Enrichment values, more frequent non-family CEO management, and higher passive family shareholdings. More specifically, Table 1, Columns 5-7 shows that, on average, zero long-term leverage family firms seem to have a lower value on SEWi Enrichment, are more often managed by a non-family CEO and have more passive family shareholders. The means of the other family-specific variables do not significantly differ between the two groups. The percentage of family managers in the top management team and the percentage of outside directors on the board do not significantly differ between zero long-term leverage and non-zero

long-term leverage family firms.

A similar picture is found when we analyse the differences in the means of our variables between zero total leverage and non-zero total leverage (Columns 8-10). SEWi enrichment, non-family CEO presence, and passive shareholder ownership are significantly different between the two groups. In contrast, the outside directors variable is also statistically significantly different between the two groups, while the tangibility variable is not significant anymore. For the other control variables, we find no significant difference between zero-leverage and non-zero-leverage firms (for total as well as long-term debt) in terms of size, age, and dividend payout.

Table 2. Correlation table

	Zero-leverage	Zero LT leverage	SEW _i Prom	SEW _i Conti	SEW _i Enrich	Family managers	Non-fam CEO	Out-side directors	Pas-sive shareh	Size	Age	Tan-gibil-ity	Divi-dends
Zero-leverage	1.00												
Zero LT leverage	0.79***	1.00											
SEWi Prominence	-0.018	0.04	1.00										
SEWi Continuity	-0.08	-0.04	0.59***	1.00									
SEWi Enrichment	-0.11*	-0.13**	0.51***	0.72***	1.00								
Family managers	-0.04	-0.02	0.02	0.12*	0.21***	1.00							
Non-family CEO	0.11*	0.16**	0.08	-0.04	-0.21***	-0.42***	1.00						
Outside directors	0.14**	0.07	0.00	-0.03	-0.17**	-0.41***	0.30***	1.00					
Passive shareholders	0.14**	0.16**	-0.04	-0.04	-0.14**	-0.30***	0.26***	0.37***	1.00				
Size	-0.09	-0.06	0.17***	0.17***	-0.02	-0.42***	0.38***	0.34***	0.21***	1.00			
Age	0.04	-0.02	-0.01	0.04	-0.00	-0.08	0.02	-0.00	0.17**	0.12*	1.00		
Tangibility	-0.02	-0.18***	0.10*	0.10*	0.18***	0.13*	-0.10	-0.13**	-0.10	-0.15**	0.05	1.00	
Dividends	0.10	0.04	0.07	-0.05	-0.01	-0.09	0.01	0.08	0.00	0.13**	0.01	0.04	1.00

Notes. *, ** and *** significant at the 10%, 5% and 1% level, respectively.

4.3. Seemingly unrelated bivariate probit regressions

Our regression analyses examine goal-based and governance-based heterogeneity separately to avoid confounding effects. We will discuss the results in the next sections.

4.3.1. Goal-based heterogeneity

Results support H1a and H1c, showing that family prominence positively and family enrichment negatively affect the likelihood that ZLTL=1 (Column (2)), while family continuity shows no significant effect (H1b). Substantively, the corresponding average marginal effects indicate an increase of about 3.97 percentage points (prominence, significant at the 10% level) and a decrease of about 6.6 percentage points (enrichment, significant at the 1% level) on the probability that ZLTL=1 for a one-unit increase in

the independent variable. For ZL (Column 1), we only find a weakly negative significant effect on the 10% level for SEWi Enrichment (H1c) (average marginal effect of 4%). The lack of an SEW continuity effect suggests that debt financing may be viewed as a relatively safe instrument for maintaining control, as firms can use moderate debt levels to avoid more control-diluting financing options (Romano et al., 2001). The likelihood-ratio test rejects the null hypothesis that the cross-equation error correlation is zero ($\chi^2=152.45$ $p<0.001$), supporting the use of a bivariate probit specification.

Table 3. Seemingly Unrelated Bivariate Probit regressions

Variable	ZL ^a (1)	ZLTL (2)
SEWi Prominence	0.066 (0.76)	0.135 (1.70) *
SEWi Continuity	0.055 (0.54)	0.084 (0.89)
SEWi Enrichment	-0.167 (-1.74) *	-0.224 (-2.50) **
Size	-0.186 (-2.02) **	-0.113 (-1.26)
Age	0.206 (0.68)	0.078 (0.27)
Tangibility		-0.709 (-3.05) ***
Dividends	1.750 (1.43)	1.074 (0.89)
Constant included	Yes	Yes
Controlled for industry	Yes	Yes
Chi ²	38.42***	
LR test of rho=0 (Chi ²)	152.45***	
Number of observations	248	

Notes. ^a. Probit models with zero total leverage (ZL) = no debt in 2019 and zero long-term leverage (ZLTL) = no long-term debt in 2019 estimated as a Seemingly Unrelated Bivariate Probit model. z-statistics between parentheses. *, ** and *** significant at the 10%, 5% and 1% level, respectively.

4.3.2. Governance-based heterogeneity

For governance mechanisms, we find that non-family CEO presence (H3) and passive shareholdings (H5) significantly (at the 1% and 10% level respectively) increase the likelihood of ZLTL=1 (Column (2), Table 4), while the outside directors variable (H4) shows a positive significant effect on the likelihood of ZL=1 at the 10% level (Column (1), Table 4). Specifically, the corresponding *average marginal effect* shows that changing the nonfamily CEO dummy from 0 to 1 increases the predicted probability of ZLTL by 18.2 percentage points. Similarly, for passive shareholders, the predicted probability of ZLTL=1 increases with 0.24 percentage points for a one-unit increase. The average marginal effect of outside directors in the ZL regression is 19.9 percentage points. H2 concerning the effect of Family managers is not supported. The positive effects for non-family CEO and Outside director presence are surprising and in contrast to what we hypothesized in H3 and H4. We will investigate these results in more depth in the next section 4.3.3.

Table 4. Seemingly unrelated bivariate probit regressions

Variable	ZL ^a (1)	ZLTL (2)
Family managers	0.178 (0.50)	0.303 (0.95)
Non-family CEO	0.365 (1.42)	0.633 (2.64) ***
Outside directors	0.835 (1.67) *	0.226 (0.47)
Passive shareholders	0.005 (1.17)	0.008 (1.93) *
Size	-0.257 (-2.47) **	-0.182 (-1.84) *
Age	0.287 (0.91)	0.008 (0.03)
Tangibility		-0.724 (-2.87) ***
Dividends	1.770 (1.10)	1.395 (1.05)
Constant included	Yes	Yes
Controlled for industry	Yes	Yes
Chi ²	43.02***	
LR test of rho=0 (Chi ²)	148.61***	
Number of observations	248	

Notes. ^a. Probit models with zero total leverage (ZL) = no debt in 2019 and zero long-term leverage (ZLTL) = no long-term debt in 2019 estimated as a Seemingly Unrelated Bivariate Probit model. z-statistics between parentheses. *, ** and *** significant at the 10%, 5% and 1% level, respectively.

4.3.3. Post hoc analyses

A possible explanation for the opposite results as hypothesized may lie in a generational effect. Indeed, prior research (e.g., [Molly et al., 2012](#)) found that debt levels are lower in later generations. Therefore, we included a generational dummy variable (the value 1 for first generation, the value 0 for later generations) to our regression models. The results of these additional tests (results not reported) reveal that the generational dummy is not significant in any model. All other significant results stay the same. Thus, this observation suggests that our results are not driven by any generational effect.

Next, we analyse the agency effects related to H3 and H5 in more detail by investigating the conditional agency effects. Although the results of probit models are by construction conditional ([Hoetker, 2007](#)), we added the formal interaction effect between a nonfamily CEO and passive shareholders to our regression models. The marginal effects analysis reveals that the Passive shareholders variable has a positive effect on the probability of a zero-leverage policy (significant at the 10% level in the ZL regression, at the 1%

level in the ZLTL regression) but only when the firm has a nonfamily CEO. Vice versa, the marginal effects analysis of the impact of a nonfamily CEO on a zero-leverage policy, conditional on passive shareholdings delivers additional insights: in the ZLTL regression, a nonfamily CEO has a positive statistically significant effect on the probability of a zero-leverage policy when there are passive shareholders. When there are no passive shareholders, we do not find a significant effect of a nonfamily CEO. In the ZL regressions the effect becomes significant starting from at least 40% passive family shareholders (results not reported). Combined, these results suggest that passive family owners seem to have an aversion towards (long-term) debt, specifically when they cannot personally supervise how the borrowed funds are used. Accordingly, the “asymmetric risk exposure” argument, on which we build in our H3, is seemingly offset by an agency effect between passive shareholders and a nonfamily CEO.

5. Discussion and Conclusion

Our study examines zero-leverage policies in private family firms, advancing beyond simple family versus non-family firm comparisons to consider both goal-based and governance-based heterogeneity through agency and socio-emotional wealth theory lenses. Our findings reveal that family prominence positively relates to zero-leverage ratios, suggesting that firms that prioritize family reputation avoid debt to prevent reputational damage. These findings are consistent with the SEW framework: the desire to protect the family’s social standing in the community (a core dimension of family prominence) translates directly into conservative financial behaviour, as firms avoid debt to shield the family from reputational consequences of financial distress. Conversely, family enrichment is negatively associated with zero leverage. This reflects a demand-side logic: firms that place high importance on family enrichment distribute more dividends to satisfy family members’ financial welfare, thereby depleting internal cash flows and necessitating external financing. Given family firm pecking order in which debt is the preferred external source after retained earnings (Jansen et al., 2023), these firms more readily accept debt financing rather than avoiding it entirely.

Regarding governance, both nonfamily CEOs and higher passive shareholdings increase zero long-term leverage probability. Regarding passive shareholdings: from a demand-side perspective, firms with higher passive shareholdings tend to be in later generational stages, where family owners

become more risk-averse and prioritize wealth preservation over firm growth (Comino-Jurado et al., 2021a). This dynamic may reduce the demand for external financing, including debt, increasing the likelihood of zero-leverage. The finding of a positive relationship between non-family CEO presence and zero long-term leverage, contrary to H3, warrants further explanation. Our additional post hoc analyses show that this effect is conditional on the presence of passive family shareholders. Hence, passive family owners seemingly perceive leverage as too dangerous (i.e., risk of financial distress) when managerial control is delegated outside the family (Waldkirch, 2020). This is an empirical finding with important theoretical implications. Prior research on family firms adopting an agency perspective has predominantly focused on Type I principal-agent conflicts, such as those arising between family owners and nonfamily CEOs, or on Type II principal-principal conflicts between active and passive family shareholders. Our findings indicate that a more integrated approach, combining these distinct agency perspectives, is necessary to achieve a deeper understanding of family firms’ financial decision-making. This finding contributes to agency literature by demonstrating that governance conditions operate differently when family and business identities are intertwined: non-family CEOs may (be forced to) adopt the passive family owners’ conservative financial preferences rather than pursuing debt-financed growth.

5.1 Theoretical contributions

This study makes several important theoretical contributions to family business and corporate finance literature. First, we advance SEW theory by demonstrating that its dimensions have differential effects on financing behaviour in private family firms. While prior research often treats SEW as a unidimensional construct, our findings reveal that family prominence and family enrichment operate through distinct mechanisms (reputation protection versus resource optimization), leading to opposing effects on zero-leverage policies. This challenges the assumption of uniform SEW effects and calls for more nuanced applications of the theory. Second, we extend agency theory in family firms by identifying how governance mechanisms create unique financing dynamics that contradict traditional agency predictions. Our findings contribute to the understanding how agency relationships in family firms differ fundamentally from those in widely held corporations, particularly regarding the potential agency conflict between nonfamily managers and passive shareholders, a type of agency problem that has been often overlooked to date. Third, we

address the research gap identified by Saona et al. (2023) by providing a systematic examination of behavioural and governance determinants of zero-leverage policies in family firms, moving beyond the traditional focus on financial constraints that has dominated prior literature.

5.2 Practical implications

In practice, our results indicate that financial advisors and lenders must consider both family goals and governance structures when working with family firms, as these factors both shape financing preferences and choices that traditional finance models do not capture. For family business owners and managers, our findings highlight the importance of explicitly acknowledging the role of SEW dimensions in shaping financing decisions. Owners of family firms with strong family prominence concerns should be aware that their aversion to debt, while protecting the family's reputation, may forgo valuable tax and growth benefits. Family business advisors and tax planners can help design financing strategies that balance SEW preservation with financial optimization. For example, by using carefully structured debt instruments that minimize external monitoring, or by using financing sources such as trade credit. For family governance structures, our results suggest that the introduction of non-family CEOs or outside directors does not necessarily lead to more leveraged financial policies. Boards and family councils should therefore proactively discuss financing philosophy to ensure alignment between governance structures and the family's financial goals. Finally, as ownership disperses across generations, family firms should engage in proactive succession planning that addresses the growing risk aversion of passive shareholders and communicates a clear financing strategy that serves both active and passive members, especially when a nonfamily CEO leads the firm.

5.3 Limitations and future research

Our findings open several avenues for theoretical development, while acknowledging several limitations of our study. First, given data limitations, our analysis cannot fully distinguish between demand and supply-side factors influencing zero-leverage decisions. Future studies should examine these aspects separately to understand their relative importance better. Second, while our cross-sectional data provides valuable insights, longitudinal analyses could reveal how zero-leverage policies evolve and respond to changing family and market conditions. Third, our findings from Belgium's bank-based, civil-law context may not generalize to other institutional environments. Comparative studies across different financial systems could reveal

how institutional factors shape family firms' zero-leverage decisions. Fourth, the survey-based measurement of SEW combines survey data with objective financial data. Future studies could employ other proxies for SEW dimensions to corroborate our findings. In terms of future research, scholars could examine how various family objectives or governance structures impact other aspects of debt policy beyond zero-leverage (e.g. debt maturity, collateral requirements) and investigate the moderating role of family governance on the relationship between SEW dimensions and financing decisions. In conclusion, this study demonstrates that zero-leverage policies in family firms result from family-specific goals and specific governance structures that operate through mechanisms distinct from those in non-family firms. By revealing the heterogeneous nature of family firm financing behaviour, our findings challenge researchers and practitioners to move beyond simplified family versus non-family comparisons toward a more nuanced understanding of the diverse factors that drive family firm financial decisions. This study establishes a foundation for future theoretical and empirical work exploring the intricate relationships between family dynamics, governance structures, and strategic financial choices in family enterprises.

Ethical statement

The authors confirm that informed consent was obtained from all participants involved in the study. The authors confirm that data collection for the research was conducted anonymously and there was no possibility of identifying the participants.

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