



Financing decisions in private family firms: a family firm pecking order

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Abstract Family firms are one of the most ubiquitous forms of business organizations worldwide. Their survival and growth are thus not only crucial for the firms themselves but also for the overall economy. One of the factors that influence their survival and development are their financing decisions. These decisions are generally described through the pecking order theory. However, not much is known about the applicability of this theory in private family firms. Given the shortcomings (both theoretically and empirically) of the current literature, we analyze 1087 incremental financing decisions from 277 family firms to develop and test a specific family firm pecking order. We integrate the elements of the socioemotional wealth perspective to theoretically explain the preferred order and introduce family capital into the pecking order model. Our

findings indicate that family firms first prefer internal financing, next debt financing, followed by family capital, and last external capital. We also find that SEW considerations play a role in this financing decision. Especially the retention of control over the firm and the aim to pass the firm to the next generation appear to play an important role in determining this order. These dimensions ensure that family firms try to avoid extra capital. However, when it is needed, they will opt for family capital over external capital. This paper thus provides more insight into the reasoning behind financing decisions in private family firms.

Plain English Summary How do family firms finance their investments? When looking for ways to finance their investments, firms have several options. According to traditional finance theories, they generally follow a so-called pecking order: they prefer to first use their internal funds, before turning to external financing. For family firms, the most ubiquitous form of business organization worldwide, two important aspects have been ignored in this research until now. First, socioemotional aspects influence decision-making in family firms and thus probably also financing decisions. Next, the business family itself can act as an external source of finance, which is not yet accounted for in the current pecking order model. In this research, we take these issues into account in order to develop—theoretically and empirically—a family firm pecking order. We investigate over a thousand financing decisions of 277 privately held

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family firms. Our results show that they prefer internal financing, followed by bank debt, family capital, and external capital. Especially the retention of control over the firm and the aim to pass the firm to the next generation appear to play an important role in determining this order. Our research thus indicates that future research should pay attention to the peculiarities of family firms when investigating their financing decision.

Keywords Family firms · Small- and medium-sized firms · Pecking order · Financing decisions · Socioemotional wealth

1 Introduction

Firms use multiple sources of funds to finance their overall operations, investments, and growth (Martinez et al., 2019). The financing decisions they make are essential for a firm's survival (Koropp et al., 2014) and result in a particular capital structure (Martinez et al., 2019). Over the years, several theories have tried to explain these financing decisions. One of the most prominent theories is the pecking order theory (Myers, 1984), which describes a preferred order in the various financing sources that firms use to finance their investments. According to this theory, firms will first use internally generated funds, such as retained earnings. When the internal funds are insufficient, the firm will resort to external funds, with a preference for debt, and, lastly, equity.

The pecking order theory is based on the problem of information asymmetry (Myers, 1984; Myers & Majluf, 1984) and assumes that due to incomplete information for investors, borrowing costs will increase (Degryse et al., 2012). The highest costs arise with the issue of equity, as the risks for the investors will be higher with this financing type because they are not sure whether the firm is overvalued or not (Myers & Majluf, 1984). In that case, the added value of the new investors will flow towards the current investors. The costs arising from this asymmetric information problem can thus explain the hierarchical order. However, empirical research is inconclusive about the pecking order: some studies support a pecking order in financing decisions (Lin et al., 2008; López-Gracia & Sogorb-Mira, 2008; McNamara et al., 2017), while others find little evidence

(Fama & French, 2005; Frank & Goyal, 2003). Additionally, some research has shown that information asymmetry may not fully explain the pecking order theoretically (Fama & French, 2005; Frank & Goyal, 2003; Lin et al., 2008). Especially in private firms, of which the majority is family owned, separation of ownership and control is less prevalent, making information asymmetries related to equity financing less of a problem (Burgstaller & Wagner, 2015; Fama & French, 2005; Jensen & Meckling, 1976).

In this paper, we revisit the pecking order—from both a theoretical and empirical point of view—with a focus on private family firms. We define a family firm as a firm in which a family has at least half of the shares and/or a firm that is perceived to be a family firm (Chua et al., 1999; Miller & Le Breton-Miller, 2006). Previous research about whether financing decisions of private family firms follow a pecking order is relatively scant, despite their abundant presence and influence on the overall economy and the essential nature of financing decisions in family firms (Michiels & Molly, 2017). Additionally, the problem of asymmetric information cannot fully explain the reasoning behind the preferred order in family firms (Gottardo & Maria Moisello, 2014; Romano et al., 2001) which calls for more in depth theorizing. Indeed, family firms have a “peculiar financial logic” that characterizes them (Gallo et al., 2004) and complicates the financing decision-making process. The choice for financing sources is often determined by control considerations in family firms (Schmid, 2013). They are reluctant to use financing sources, such as external equity, that dilute their perceived control over the firm (Koropp et al., 2014). The socioemotional wealth (SEW) perspective (Gómez-Mejía et al., 2007) takes these elements of family control and loss aversion into account and may thus help to explain a *family firm* pecking order. The SEW perspective suggests that the motives of individuals in a company go beyond purely economic goals, such as maximization of shareholder value. Family owners may use gains or losses in their SEW as the main frame of reference when taking strategic (financing) decisions. It may thus be essential to take these family firm-specific elements into account when researching their financing decisions.

Previous empirical research has revealed findings that are in line with a pecking order in financing decisions in family firms. Some studies focused on the

attitude toward different financing sources (Lappalainen & Niskanen, 2014; Romano et al., 2001), while others studied the relation between profitability and debt (Burgstaller & Wagner, 2015; López-Gracia & Sánchez-Andújar, 2007). These previous tests on capital structures often use the ratio of debt over assets, thereby taking into account all accumulated liabilities since the establishment of the firm and thus ignoring the timing of the acquired debt or equity (de Haan & Hinloopen, 2003). Additionally, these debt ratios do not distinguish between internal equity and external equity, which is necessary to empirically test a pecking order. Thus, none of these studies used methods that enabled them to focus on the actual financing decision made, which is surprising, as this is the core of the pecking order theory. Additionally, in order to obtain a family firm-specific pecking order, the integration of family firm-specific financing types, such as family equity, is required. However, this integration is missing in current empirical research. We argue that especially a more fine-grained distinction in the equity category is needed. As the theoretical argument for the use of family capital is totally different than for external equity, the integration of this specific financing type in the pecking order is important.

In this paper, we develop and test a specific pecking order for family firms based on incremental financing decisions made for investments, using a unique dataset consisting of 1087 financing decisions from 277 small- and medium-sized family firms in Belgium. By applying the methodological strategy proposed by de Haan and Hinloopen (2003), we determine the hierarchy of the financing sources used. We distinguish between four different financing types: internal financing, bank debt, family capital, and external capital. A multinomial logit model first distinguishes the different financing types used by family firms. Afterwards, an ordered probit analysis is conducted to determine the hierarchy of the financing types. For each possible financing hierarchy, a separate ordered probit model is estimated, which shows the hierarchy that suits the data best. Finally, a continuation-ratio logit model is used to test whether there is a sequential mechanism that determines the response outcome.

This paper contributes to the existing literature in four ways. First, we respond to the call of Reay and Whetten (2011) to modify existing theories to the specific context of family businesses to improve

their explanatory power. We do this by expanding the pecking order theory in order to integrate family firm-specific elements to explain the preferred order. After all, traditional asymmetric information arguments (Myers, 1984) cannot fully explain the reasoning behind the preferred order in family firms (Gottardo & Maria Moisello, 2014; Romano et al., 2001), as several family-specific elements complicate the financing decision-making process in family firms (Michiels & Molly, 2017). These elements can be captured by the socioemotional wealth theory (Gómez-Mejía et al., 2007). The integration of this perspective, next to the problem of asymmetric information, will enable us to explain the theoretical reasoning behind the preferred financing order.

Second, we do not only expand the pecking order theory by integrating family firm-specific elements to explain the preferred order but also by adding a family-specific financing type. Michiels and Molly (2017) argued that traditional frameworks, such as the pecking order theory, need a more extended view beyond the use of the classic financing types. Lappalainen and Niskanen (2014) and Romano et al. (2001) found that family firms have different attitudes towards family capital and external capital when increasing equity financing. That is why we make a distinction between these two types of capital. We will thus test a pecking order with four financing types: internal financing, bank debt, family capital, and external capital.

Third, we take the heterogeneity of family firms into account when researching their financing decisions. As a majority of previous studies about financing decisions in family firms only make the oversimplified comparison between family and non-family firms, there is a need for research that takes the differences between family firms into account (Daspit et al., 2021; Michiels & Molly, 2017). We answer these calls and acknowledge goal-based heterogeneity by integrating the SEW perspective. After all, family firms can differ on their various family-related goals. For example, for some family firms, control considerations are more important than for others. In addition, not all family firms have the same dynastic succession intentions. We aim to measure these different SEW dimensions in a direct way, in contrast to prior studies building on the SEW perspective in the finance field which use indirect measures (e.g., Molly et al., 2019) or a composite direct measure (Baixauli-Soler et al.,

2021). Additionally, we take governance-based heterogeneity into account and examine the role of governance mechanisms in explaining the pecking order, being the presence of a non-family CEO and a family charter.

Finally, previous research mostly relied on methods based on debt ratios or attitudes to test whether family firms follow pecking order behavior (Burgstaller & Wagner, 2015; Lappalainen & Niskanen, 2014; López-Gracia & Sánchez-Andújar, 2007; Romano et al., 2001). We contribute to the literature by empirically testing the financing hierarchy of family firms based on incremental financing decisions. For every year, we know which financing type (e.g., internal financing or bank debt) is used for investments of every family firm in the sample. By looking into these incremental financing decisions, we are able to establish the relevant determinants for the choice of a specific financing source. Hereby, we are thus able to not only theoretically describe a family firm pecking order, but also to empirically test this order.

The remainder of the paper is organized as follows: The next section gives an overview of the literature. After that, the data are described, followed by a discussion of the method and the results. The final section concludes and provides opportunities for future research.

2 Literature

2.1 Pecking order theory

Financing decisions and capital structures have been important topics of research in business economics. Over the years, several theories have tried to explain the financing decisions that are taken. One of the traditional finance theories is the pecking order theory (Myers, 1984). This model focuses on a hierarchical order in which financing sources are chosen to finance investments. According to this theory, firms prefer internal over external financing. When internal funds are inadequate, bank debt will be used first, and equity funding will be considered as a last resort. As a consequence, the theory assumes there is no optimal capital structure or target debt level (Degryse et al., 2012).

The pecking order theory is based on the problems related to the presence of asymmetric information

(Myers, 1984; Myers & Majluf, 1984). Typically, managers have more information about the firms' value than outsiders. When there is a high level of asymmetric information, investors will not have complete borrower information, which results in increased borrowing costs (Degryse et al., 2012). Investors will mostly be more suspicious in providing equity due to the risks associated with this transaction (Myers & Majluf, 1984). It is only interesting for them if it reveals a growth opportunity for the firm.

The costs associated with the issue of debt or equity, such as transaction costs, can thus explain the preferred order of the financing options. Because the use of internal funds has the lowest costs, this funding will be preferred first. When an external party is needed, debt will be chosen above equity due to the lower transaction cost associated with the former.

Empirical research shows mixed results about the presence of a pecking order. Some studies support a traditional pecking order in financing decisions (e.g., Lin et al., 2008; López-Gracia & Sogorb-Mira, 2008; McNamara et al., 2017), while others find little or no evidence of the pecking order (e.g. Fama & French, 2005; Frank & Goyal, 2003; Fulghieri et al., 2020). Additionally, several researchers investigated a modified version of the order (Bartholdy et al., 2012; de Haan & Hinloopen, 2003) by dividing the traditional financing types into different categories. For example, de Haan and Hinloopen (2003) split up the external equity into bonds and shares. These inconsistent empirical results may be caused by the variety of methodologies used to test the pecking order in these papers. Some studies focus for example on the ratio of debt over assets in order to explain a pecking order. However, by using this method the *timing* of the acquired debt and equity is ignored because all accumulated liabilities since the establishment of the firm are taken into account (de Haan & Hinloopen, 2003). Moreover, there is no distinction between internal equity and external equity, which is necessary to empirically test a pecking order. By relying on incremental financing decisions—as we are doing in this study—these concerns are substantially mitigated.

Additionally, there is also an indication that information asymmetry may not fully explain the pecking order in most private firms (Fama & French, 2005; Frank & Goyal, 2003; Lin et al., 2008). For example, Frank and Goyal (2003) and Fulghieri et al. (2020) found that small high-growth firms do not follow the

predetermined order. Debt and equity are shifting places in this “pecking disorder” (Fulghieri et al., 2020). The traditional pecking order works best for large, well-established, and publicly traded firms (Frank & Goyal, 2003). However, because large firms are often well known, with long uninterrupted trading records, investors have enough information about the firms when they need financing. Accordingly, information asymmetry problems are expected to be less severe in these firms and can therefore not explain the presence of the pecking order, which calls for more in-depth theoretical exploration of pecking order behavior in private firms.

Some alternative explanations can be found in agency theory (Jensen & Meckling, 1976; Myers, 2003; Xiang & Worthington, 2015). Indeed, when a firm is only funded with internal funds, agency costs are minimal. However, when external funding is needed, agency costs will occur, especially when external funding is provided by an outside investor. Lin et al. (2008) found an explanation in the behavior of the manager, being the manager’s optimistic earnings forecasts. This managerial optimism may lead to the manager’s pecking order preference. Their results show that managers who are more optimistic will issue more debt.

Additionally, as the traditional pecking order generally focuses on listed firms, the question arises whether the theory also applies in the context of private SMEs. After all it is inherent to all types of capital structure research that outcomes can be influenced by both supply (e.g., availability, access) and demand considerations (e.g., control motives) which may be different in private SMEs. In addition, although traditional external financing sources such as the public capital market may not be easily available to them, SMEs do have access to alternative sources of external finance such as capital from friends, family, angel investors, crowdfunding, or venture capital (Schickinger et al., 2018). Also the theoretical reasoning behind financing decisions in private firms can be substantially different in comparison to listed firms (Ampenberger et al., 2013; Gottardo & Maria Moisello, 2014). More specific, the problem of asymmetric information may differ in private firms because there is usually no separation between ownership and control. Costs associated with equity financing, especially from existing owners, may thus be less present (Burgstaller & Wagner, 2015; Fama & French, 2005; Jensen & Meckling, 1976).

In the next section, we will revisit the pecking order in private family firms and its theoretical drivers.

2.2 A family firm pecking order

When further looking into privately held *family* firms, some studies also point towards a pecking order. Lapalainen and Niskanen (2014) indicated that due to differences in the attitude towards different financing types between family firms and non-family firms, it could be expected that the pecking order may differ between these types of firms. Burgstaller and Wagner (2015) and López-Gracia and Sánchez-Andújar (2007) used panel data to study the debt levels of family firms. Based on a negative relationship between profitability and debt, they favored the pecking order as an explanation of the financing decisions in family firms. However, Gottardo and Maria Moisello (2014) and Romano et al. (2001) indicated that the traditional pecking order theory building on informational asymmetry cannot fully explain family firms’ financial choices.

Romano et al. (2001) indicated that a complex array of factors influence family firm owner’s financing decisions and Koropp et al. (2014) showed empirically that financing decisions are indeed influenced by the manager’s preferred choice and even non-rational elements. Therefore, family firms’ financing behavior is likely to be driven by non-economic considerations such as risk-taking propensity, emotions, and family goals (Berrone et al., 2012; Romano et al., 2001). Although family firms are often aware of the economic consequences (e.g., a lower growth rate) of their financing decisions, family business owners may consider non-economic goals more critical than these economic goals (Motylska-Kuzma, 2017).

Especially family control and loss aversion considerations are crucial in understanding financing decisions in family firms (Burgstaller & Wagner, 2015; González et al., 2013; Schmid, 2013). López-Gracia and Sogorb-Mira (2008) indicated that in small- and medium-sized family firms, owner-managers will be more hesitant to seek financing that limits their ability to act. For example, additional external equity can reduce the owners’ shareholding in the company. Indeed, family firms have to make a trade-off between retention of control, which favors the use of debt financing, and risk aversion, which stimulates the

company to adopt more cautious attitudes toward debt (Burgstaller & Wagner, 2015; González et al., 2013; Schmid, 2013). 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 debt increases the probability of default and is thus risk enhancing. This illustrates the complexity of the financing decisions in family firms.

These two key elements, family control and loss aversion, are core concepts of the socioemotional wealth (SEW) perspective (Gómez-Mejía et al., 2007). This perspective suggests that the motives of individuals in a company go beyond purely economic goals. The firm's non-financial aspects have to meet the family's affective needs. Some recent finance studies started to point to this perspective as an explanation for financing decisions in private family firms (Baixauli-Soler et al., 2021; Molly et al., 2019). However, these studies only focused on the use of debt. We argue that the SEW perspective has also high relevance as a theoretical explanation for pecking order behavior in private family firms.

The SEW concept is multidimensional including the dimensions family control and influence (*F*), family members' identification with the firm (*I*), binding social ties (*B*), emotional attachment (*E*), and renewal of family bonds to the firm through dynastic succession (*R*) (Berrone et al., 2012). Two of these dimensions are especially relevant for this study, as they might influence the willingness to attract specific financing types: the *F*- and the *R*-dimensions. Indeed, prior family firm finance papers pointed to the importance of control considerations (e.g., Ampenberger et al., 2013; Croci et al., 2011; Schmid, 2013) and dynastic (managerial) succession intentions (e.g., Amore et al., 2011; Koropp et al., 2013; Molly et al., 2010) as drivers of capital structure decisions.

The key of the *F*-dimension is that the family exerts control over the strategic decisions (Berrone et al., 2012). To preserve SEW, family members require continued control of the firm, regardless of financial considerations (Gómez-Mejía et al., 2007). This control can be carried out directly, for example, by providing the CEO, or more indirectly, for example, by having family members in the top management team. By having control over the firm, the family also has an influence over the financing decisions made, making them capable of avoiding financing sources that dilute their control over the family firm.

The *R*-dimension focuses on the intention of handing the business down to future generations (Berrone et al., 2012). This implies, among other things, that the family has a long time horizon in the decision-making process (Berrone et al., 2010). It measures to which degree the family sees the firm as a long-term family investment, which influences the financing decisions made. Both dimensions indicate that family firms may not strive toward the most optimal debt level; instead, their desire to attract debt determines their debt level (Molly et al., 2012).

These desires determine the willingness to attract some financing types and the different attitudes towards the various financing types. Lappalainen and Niskanen (2014) found, for example, that the attitude towards additional equity from *current owners* is more positive in family firms than in non-family firms. Additionally, smaller family businesses have a substantial amount of their funding provided by internally generated funds such as owner capital (Lappalainen & Niskanen, 2014; Romano et al., 2001), while public markets are not used that often (Romano et al., 2001). Thus, there is a clear distinction in attitude towards additional capital injections from the current shareholders versus those from external parties (Neubauer & Lank, 1998).

This distinction in preference suggests that these two different financing types should be separately integrated in a family firm-specific pecking order. The question is then where this family capital is positioned in the pecking order. As capital from family members can be issued with modest information asymmetry problems and thus low transaction costs (Fama & French, 2005), it will not be the last resort in the pecking order. In contrast, for debt financing and external equity, costs arise due to the fact that the interests between the family and creditor or family and external shareholders do not align (Xiang & Worthington, 2015). However, Croci et al. (2011) argued that the cost of debt in family firms is lower than in non-family firms. Due to their long-term orientation and good connections with their stakeholders (Carney, 2005) in combination with their preference for low-risk investment (Croci et al., 2011), credit markets are less reluctant to offer them debt financing. Based on these arguments, family capital could be placed between bank debt and external capital.

By adding family capital as financing source and using the SEW perspective as additional theoretical

justification, we are able to develop and test a family firm-specific pecking order. We expect that this pecking order will have the following sequence of preferred financing types: first internal financing, next bank debt, followed by family capital, and last external capital. We argue that, based on the arguments of the SEW perspective, internal financing will be chosen first, especially when keeping control in the hands of the family is considered important. These control considerations also explain the preference for family capital over external capital. Additionally, the position of these two financing sources can also be explained by the desire to hand over the firm to the next generations. When dynastic succession intentions are considered important, the family views the business as a long-term investment and will therefore be more open to provide additional capital. Bank debt will still be preferred over family capital due to minor risks of losing control of the firm and the reasonable costs associated with the issue of debt. Therefore, we argue that firms will rely on the following pecking order: (1) internal financing, (2) bank debt, (3) family capital, and (4) external capital.

So far, we revisited the pecking order from a general family firm perspective, considering family firms as a uniform group. However, a growing body of research revealed a high degree of heterogeneity among family firms (Neubaum et al., 2019). In the next section, we focus on two important sources of family firm heterogeneity, namely goal-based and governance-based heterogeneity (Chua et al., 2012) as drivers of pecking order behavior in private family firms.

2.3 Family firm heterogeneity as a driver of a family firm pecking order

2.3.1 Goal-based heterogeneity

Prior research proposed that socioemotional wealth is a main driver of distinct family business behavior vis-à-vis non-family firms. However, this assumption has been questioned recently (Hasenzagl et al., 2018). Indeed, family firms are a very heterogeneous population and show a wide variation regarding the different dimensions of SEW (Gerken et al., 2022). For example, although several family firms consider absolute control of the firm as the main reference point in their financial decision making (Berrone et al., 2012), the

existence of many listed and venture capital backed family firms (Chemmanur et al., 2021) are exemplary of a more flexible attitude towards outsiders. In a similar vein, family firms also differ in the degree to which they aim to renew the family bonds through dynastic succession (Gerken et al., 2022).

Such variations in the importance of SEW dimensions may lead to heterogeneous strategic (financing) behavior among family firms (Debicki et al., 2016). Therefore, we expect that internal finance and family capital will be preferred more and external capital less when family firms attach a higher value to control and dynastic succession considerations. For bank debt, family firms have to make a trade-off between retention of control, which favors the use of debt financing, and risk aversion, which stimulates the company to adopt more cautious attitudes towards debt (Burgstaller & Wagner, 2015; González et al., 2013; Schmid, 2013).

2.3.2 Governance-based heterogeneity

Apart from their goals, family businesses also differ in terms of their governance structure. In this regard, we focus on two important sources of governance-based heterogeneity, namely a family charter and a non-family CEO.

First, a family charter is a mechanism to establish an effective family governance system (Suess, 2014). The family charter (also called family constitution or family protocol) can be defined as a formal agreement in which fundamental principles and guidelines on how the family organizes its relationship with the business are formulated (Berent-Braun & Uhlaner, 2012; Suess, 2014) and finds its theoretical roots in the relational governance perspective (Mustakallio et al., 2002; Poppo & Zenger, 2002; Uhlaner et al., 2007). This perspective proposes that “governance emerges from the values and agreed-upon processes found in social relationships” (Poppo & Zenger, 2002, p. 709). Relationally governed exchanges happen through social processes that promote norms of flexibility, solidarity, and information exchange which will lead to trust, solve potential high costs of exchange hazards, and ultimately lead to expectations of continuity and longevity (Poppo & Zenger, 2002). In family firms, a family charter can play a pivotal role in establishing effective relational governance. Indeed, a family charter should ideally be the result

of a lengthy developmental process in which multiple family members articulate in advance the expectations concerning the firm and try to reach a shared vision. This process view of the family charter proposes that the development process is much more important from a relational perspective (e.g., relational dynamics characterized by open communication develop feelings of fairness, trust, and family unity) than the document itself (Botero et al., 2015). The relational process and the final document will ultimately lead to strong family owner commitment and responsible ownership (Uhlener et al., 2007). Thus, developing a family charter helps to formally describe the social capital in the family firm, which results in a more structured organization for family and business, fewer conflicts, and a better view of the long run of the business (Suess, 2014). Leana and Van Buren (1999) indicated that good managed social capital leads to increased access to (external financial) resources, improved group communication, and efficient collective actions. Further, a shared vision of the firm and its future is created, which also results in a shared vision about financing decisions to be taken in the future. Due to the formal agreements about the future of the firm, it is likely that the family firm will be more open towards external parties (Suess, 2014). This is because the position of the family and external parties in the firm is well thought and clearly described in advance (Mustakallio et al., 2002). Moreover, from an external investor (supply side) perspective, responsible family ownership and commitment (as a result of the family charter development process) will mitigate potential agency conflicts (Arteaga & Menéndez-Requejo, 2017) which may increase their willingness to invest. Accordingly, we expect a positive relationship between having a family charter and external capital.

Second, non-family CEOs represent an important stakeholder group across listed and private family firms (Walckirch, 2020) and are an important source of heterogeneity in family firm governance. Due to a lack of sufficient human resources inside the family, non-family managers can be included to guarantee the firm's survival and growth (Block, 2011; Klein, 2000; Sonfield & Lussier, 2009). This may be an indication that the family is open for external partners in the firm. By having a non-family CEO, the family can prevent emotions severely influencing the decision-making process (Goel et al., 2013). From a cognitive

perspective, family CEOs might have had limited exposure to the external environment and make decisions “by intuition” and with emotions, as opposed to non-family CEOs who make decisions “based on logic and rational analysis” (Block, 2011, p. 11). Therefore, we argue that a non-family CEO will rather make decisions, including financing decisions that are best for the organization. This will limit the influence of family goals on the decisions made and thus limit the higher preference for internal financing and family capital.

3 Data and variable definition

3.1 Data

We analyze a unique dataset based on survey data combined with financial data from the Bel-first database (Bureau Van Dijk). The survey was sent out to CEOs of 5005 Belgian companies with 10 to 500 employees in the Flemish region. The firms were all (private) limited companies, not active in the financial or governmental sector, and no holdings were included. The emails were sent out in December 2019, followed by two reminders (8 days and 29 days after the first email). We received 546 responses, which is a response rate of 10.91%. This response rate is in line with previous studies of privately held firms that target CEOs (Berent-Braun & Uhlener, 2012; Cruz et al., 2010; Michiels et al., 2015). As it was not possible to select only family firms ex-ante, we coded these firms afterwards. For the purpose of this study, we define a family firm as a firm in which a family has at least half of the shares and/or a firm that is perceived to be a family firm (Chua et al., 1999; Miller & Le Breton-Miller, 2006; Vandekerckhof et al., 2014; Voordeckers et al., 2007). Based on this definition, our database contains information on 427 family firms.

The survey data is supplemented with data from a secondary source: the Bel-First database by Bureau Van Dijk, which contains 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 research is based on 277 family firms and 1087 incremental financing choices.

3.2 Variables

3.2.1 Dependent variable

The dependent variable of our models is *the incremental financing decision* made for an investment. To capture these incremental financing decisions, the respondents were asked to indicate which financing types were used for investments every year in the period from 2014 until 2018. Based on the literature, we selected the following financing types in order to determine a family firm pecking order: internal financing, bank debt, family loans and equity (family capital), and outside equity (external capital). We make a clear distinction between capital from family members and external equity. When more than one financing type was indicated for 1 year, we code it under one primary financing type. If only retained earnings are used, the firm is coded under “internal financing.” If a firm uses bank debt or a combination between bank debt and internal funding, we code the financing decision under “bank debt.” It is common practice in the Belgian context for banks to ask for firms to partly finance an investment with internal resources before the firm receives a bank loan. When a firm uses a family loan or family equity, even in combination with internal financing and/or bank debt, we classify it under “family capital.” The choice to involve the family in a particular decision is the most important. Lastly, every financing decision where an external partner is involved will be classified under “external capital.” The dependent variable is thus an ordinal variable with four categories: 0=internal financing, 1=bank debt, 2=family capital, and 3=external capital. Our final sample consists of 1087 financing choices from 277 family SMEs.

3.2.2 Explanatory variables

The models are supplemented with explanatory variables based on financial variables linked to the capital structure and family firm-specific variables.

Financial variables The financial variables are based on previous capital structure research and are collected from the Bel-first database for the years 2013 until 2017. To avoid constructed correlations between explanatory variables and recorded financing types, all financial explanatory variables are lagged

1 year (de Haan & Hinloopen, 2003). To control for outliers, the variables are winsorized at 1% and 99% (Bacci et al., 2017).

The first financial variables explain the finance decisions from the pecking order theory (Myers, 1984) and are also used by de Haan and Hinloopen (2003). *Liquidity* (liquid assets/total assets) and *profitability* (earnings/total assets) capture the availability of internal funds (Burgstaller & Wagner, 2015; de Haan & Hinloopen, 2003; Myers & Majluf, 1984). We can expect that they will be positively related to internal financing and negatively related with the other financing types. Next, the firm’s *size* (log(total assets)) will be positively related with debt and external financing and negatively related with internal financing. Large firms are more diversified, have less risk for bankruptcy, and have more bargaining power (Burgstaller & Wagner, 2015). This results in fewer information problems and, thus, higher levels of debt and external equity. This results in a lower cost to acquire external finance. Lastly, the *age* (ln(age)) of the firm is added. When a firm is older, information asymmetry should be less present due to the known history of the firm (Burgstaller & Wagner, 2015; Frank & Goyal, 2003). This reduces borrowing costs and thus results in higher debt levels. However, older firms do have more internal funds and thus less likely need external financing (Burgstaller & Wagner, 2015). We thus expect a positive relationship with internal financing and debt financing.

Additionally, we will include two other capital structure determinants. The first variable is firm *risk* (proxied by the absolute value of the difference between the annual percentage change in net income and the average of this change over 5 years). Riskier firms are expected to have lower leverage because they have a higher chance of entering into financial distress (Burgstaller & Wagner, 2015). We thus expect a negative relationship with debt and with external capital. The second variable is the *effective tax rate*. When this tax rate is high, there will be higher benefits of having debt (Bigelli et al., 2014). We thus expect a positive relationship with bank debt.

Family firm-specific variables To capture the particular context of family firms, we will also add family firm-specific variables to our model. As discussed in Sect. 2, the socioemotional wealth (SEW) perspective (Gómez-Mejía et al., 2007) proposes family control and

dynastic succession considerations as important reference points for financial decision-making. The seminal paper of Berrone et al. (2012) discussed five different dimensions of SEW which form the basis of several scale development efforts. Two dimensions are highly relevant in our analyses: the *F-dimension* “Family Control and Influence” and the *R-dimension* “Renewal of Family Bonds Through Dynastic Succession.” We measure the *R-dimension* by the 3 items of the REI scale of Hauck et al. (2016) ($\alpha = 0.78$). Although the *F-dimension* did not show up as a strong factor in scale development studies (Gerken et al., 2022), prior finance studies (e.g., Martínez Romero & Rojo Ramírez, 2017) tested the direct effect of this dimension based on the items proposed by Berrone et al. (2012) and found some interesting results. Therefore, we went back to the original 6 items for the *F-dimension* as proposed by Berrone et al. (2012) ($\alpha = 0.77$).

Finally, we control for the influence of governance-related factors by adding two family firm-specific variables that might have an influence on the financing decisions. First, we take the presence of formalized family governance practices into account. The *family charter* (dummy variable with a value of 1 when the firm has a family charter; 0 otherwise) is a mechanism to establish an effective family governance system (Suess, 2014). Our sample was gathered in Belgium, which was one of the first countries worldwide with a corporate governance code for private firm (Code Buisse), which includes a specific section on family firms. This code contains several guidelines concerning the role of a family charter, the development process and its content, which substantially increases the likelihood that the charter is the result of a dynamic development process and contains a shared vision concerning the financing strategy of the firm. Second, we take family involvement in the top management of the firm into account (non-family CEO versus family CEO). Therefore, we include a dummy variable with a value of 1 for having a non-family CEO and 0 otherwise.

4 Method and results

4.1 Method

Our analyses are based on the methodology used by de Haan and Hinloopen (2003). Our dependent

Table 1 Overview of the sample

Variable	Number of firms	Percentage of total sample
Firm age		
0–20 years	6	2.16%
21–50 years	240	86.64%
More than 50 years	31	11.19%
Employees		
10–50	221	79.78%
51–100	32	11.55%
100–250	24	8.66%
Industry		
Manufacturing	92	33.21%
Construction	32	11.55%
Wholesale and retail	85	30.69%
Services	68	24.55%

variable is considered as ordinal and consists out of four categories: internal financing, bank debt, family capital, and external capital. After discussing the descriptives, we estimate a multinomial logit model which explains the drivers of the financial choices. Based on these results, we can conclude if the drivers behind the different financing types differ and we can thus make a distinction between the different financing types. Second, we use ordered probit analyses to test every possible hierarchy of the different financing types. Based on these results, we can see which hierarchy suits the data best and is thus the preferred order.

4.2 Descriptive analyses

Table 1 gives an overview of the sample. Most firms are between 20 and 50 years old (86.64%) and have between 10 and 50 employees (79.78%). The firms are mostly situated in the manufacturing (33.21%) and wholesale and retail (30.69%) industry. Table 2 gives an overview of the financial variables and family firm variables. The mean liquidity and profitability are 11.8% and 4.4%, respectively. On average, firms pay 25.6% taxes. The average score on the *F-dimension* is 5.15 out of 7 and on the *R-dimension* 5.46 out of 7. The governance variables show that less than 24% of the family firms have a non-family CEO and that 18% have a family charter. Table 3 shows the correlation table. The highest (0.448) correlation can

Table 2 Descriptives

Variable	Mean	Std. Dev	Min	Max
Liquidity	0.118	0.124	0.000	0.646
Profitability	0.044	0.074	-0.250	0.317
Size ^a	8,047,336	1.08e ⁺⁰⁷	320,213.9	6.97e ⁺⁰⁷
Age ^a	33.897	13.682	16	89
Risk	4.531	11.480	0.007	139.523
Effective tax rate	0.256	0.284	-0.766	2.006
SEW <i>F</i>	5.146	1.309	1	7
SEW <i>R</i>	5.460	1.437	1	7
Family charter	0.181	0.385	0	1
Non-family CEO	0.238	0.426	0	1

^aFor these variables, we report the absolute value (whereas in the regression analyses, natural logarithm of these variables is included)

be found between the *F*- and *R*-dimension of SEW. Based on the correlations, we can conclude that there is no problem with multicollinearity.

Table 4 gives an overview of the firm characteristics by financing choice. For every variable, the mean value per financing choice is given. An ANOVA test is executed to test whether there are differences, with respect to these firm characteristics, among the different groups with another choice of financing, based on the between and within variances of the groups. The results show that firms that finance more internally are relatively more profitable and have higher liquidity. External capital is used more by larger firms. This is in line with what we would expect from the problem of asymmetric information: larger firms should

Table 3 Correlation table

	Liquidity	Profitability	Size	Age	Risk	Effective Tax rate	SEW <i>F</i>	SEW <i>R</i>	Family Charter	Non-family CEO
Liquidity	1									
Profitability	0.342 ***	1								
Size	-0.140 ***	-0.021	1							
Age	-0.06 ***	-0.084***	0.245***	1						
Risk	-0.079 ***	-0.145***	-0.083***	-0.003	1					
Effective Tax rate	0.036 ***	0.099***	-0.090***	-0.084***	0.004	1				
SEW <i>F</i>	0.039	-0.011	0.015	0.120***	-0.059**	-0.002	1			
SEW <i>R</i>	-0.022	-0.040	0.245 ***	0.145***	-0.051*	-0.102***	0.448***	1		
Family Charter	-0.106 ***	-0.007	0.207***	0.048*	-0.004	-0.039	0.126***	0.256***	1	
Non-Family CEO	-0.048	0.011	0.322***	0.027	-0.060**	-0.065**	-0.097***	0.045*	-0.086***	1

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

Table 4 Firm characteristics by financing type

	Internal financing	Bank debt	Family capital	External capital	<i>F</i>
Financial variables					
Liquidity	0.187	0.098	0.091	0.103	52.07***
Profitability	0.064	0.044	0.025	0.039	15.71***
Size ^a	7,443,721.6	7,932,043	8,937,831	10,017,527	4.40***
Age ^a	36.433	33.091	32.879	36.276	8.18***
Risk	3.060	4.479	5.424	4.657	2.42*
Effective tax rate	0.255	0.280	0.205	0.230	5.77***
Family firm variables					
SEW <i>F</i>	5.243	5.111	5.247	4.688	4.33**
SEW <i>R</i>	5.581	5.300	5.707	5.667	6.34***
Family charter	0.174	0.142	0.203	0.432	14.33***
Non-family CEO	0.278	0.249	0.176	0.238	2.74**

^aFor these variables, we report the absolute value (whereas in the regression analyses, natural logarithm of these variables is included). This table provides the mean values of the explanatory variables for every financing type. The *F*-score of the analysis of variance is given. *, **, and *** significant at the 10%, 5%, and 1% level, respectively

Table 5 Multinomial logit model

	Marginal effects			
	Internal financing	Bank debt	Family capital	External capital
Financial variables				
Liquidity	0.900 (7.69)***	-0.830 (-4.95)***	0.147 (1.11)	-0.216 (-3.11)***
Profitability	0.348 (1.72)*	0.535 (2.06)**	-0.779 (-3.59)***	-0.103 (-1.13)
Size	0.004 (0.31)	-0.011 (-0.64)	0.015 (1.07)	-0.008 (-1.50)
Age	0.171 (4.59)***	-0.076 (-1.62)	-0.093 (-2.41)**	-0.002 (-0.11)
Risk	-0.003 (-1.48)	0.000 (0.20)	0.002 (1.71)*	0.000 (0.96)
Effective tax rate	-0.046 (-0.84)	0.168 (2.73)***	-0.127 (-2.55)**	0.005 (0.31)
Family firm variables				
SEW <i>F</i> -dimension	0.002 (0.14)	0.020 (1.43)	-0.007 (-0.61)	-0.015 (-3.47)***
SEW <i>R</i> -dimension	0.015 (1.31)	-0.047 (-3.53)***	0.029 (2.63)***	0.003 (0.82)
Family charter	0.054 (1.40)	-0.151 (-3.49)***	-0.002 (-0.06)	0.099 (3.43)***
Non-family CEO	0.084 (2.36)**	0.008 (0.19)	-0.090 (-3.23)***	-0.001 (-0.12)
Controlled for year	Yes			
Controlled for industry	Yes			
Log likelihood	-1133.237			
Pseudo- R^2	0.1079			
Number of observ	1,087			

Multinomial logit model with categories defined as 0=internal financing, 1=bank loans, 2=family capital, and 3=external capital. Absolute value of z -statistics between parentheses. *, **, and *** significant at the 10%, 5%, and 1% level, respectively

use more external capital due to the lower costs. Regarding firm age, the results show that older firms have a higher average value on internal financing and external capital. Thus, we see both effects that could be expected from the traditional pecking order literature: older firms have more internal funds and have more access to external funding. The highest level of risk can be found with family capital. We expected that riskier firms do not have access to bank debt or external financing. We thus see that, if there is a need for financing, these firms will use the only option left, namely family capital. When looking at the family firm-specific variables, we see that the scores on the *F*-dimension of SEW are higher when the firm chooses for internal financing or family capital. For the *R*-dimension, the highest score is seen with firms financing with family capital. In other words, firms that attach importance to retention of control or who aim to pass the firm to the next generation will limit the use of external parties when seeking for financing and mostly use internal generated funds or extra capital from family members. Having a family charter occurs more in the case with firms that use external capital. Family firms that have recorded agreements

in official documents thus seem to be more open to external capital. Family firms with a non-family CEO are less likely to opt for family capital.

4.3 Drivers of the incremental financing choices

A multinomial logit model is used to explain the drivers behind the financing choices. The marginal effects, the partial derivatives of the probabilities concerning the explanatory variables evaluated at their respective means, are used because they are directly interpretable (de Haan & Hinloopen, 2003). The results are shown in Table 5.

The results show that liquidity is highly positively related with the probability of using internal financing but negatively related with the probability of attracting bank debt and external capital. These findings are in line with the traditional pecking order. The availability of internal funds causes a higher probability of using these funds and a lower probability of using external funds. Profitability is positively related with the probability of using internal funds and bank debt and negatively related with the probability of using family capital. This indicates that firms prefer to use

the profits, maybe in combination with bank debt, to fund new investments. There are no significant effects for size. For age, we find that older firms are more likely to use internal financing and less likely to use family capital. Because of their age, they seem to have more internal financing available and have no need for other financing types. Additionally, the effects of the risk variable are small and only significant and positively related with family capital. This finding can be an indication that riskier firms can only use family capital as financing source. We see a positive relation between the effective tax rate and the use of debt but a negative relation with family capital. Firms which have to pay higher taxes will profit from the benefits of bank debt.

Next, we also see negative and positive effects from the family firm variables. When looking at the specific dimensions of SEW, the *R*-dimension is negatively related with the probability of using bank debt and positively related with the probability of using family capital. The *F*-dimension is negatively related with the probability of using external capital. Thus, when families find it important that the firm is transferred to the next generation, they are more prepared to choose for family capital. They will also be reluctant to use bank debt. When retention of control is important for the family, there is a higher chance on a negative attitude toward external parties in the firm. Having a family charter is negatively related with bank debt and positively with external financing, which means that there is a higher chance that the family has formalized agreements in a document before introducing external capital. Having a non-family CEO is positively related with the probability of using internal financing and negatively related with the probability of using family capital. Thus, the non-family CEO seems to be more reluctant to use family capital and primarily focuses on the traditional financing types whereby internal financing is preferred. This is in contrast with what we expected. Another explanation might be found in the behavior of the family: it is possible that the family does not want to invest more in the firm because a non-family CEO is appointed. The presence of a non-family CEO does not limit the preference for debt financing and does not increase the openness to external capital.

To summarize, we find indications for a pecking order in financing in the financial variables. Based on the effects found with liquidity, profitability, and age,

we see a preference of internal funding and a limited use of debt and especially external capital. Additionally, the family firm-related variables have clearly an influence on the preferred financing types. Therefore, the integration of these variables is a valuable addition to the literature. Also, the drivers behind the four financing types are different, which indicates that the financing types differ from each other. As different marginal effects occur for family capital and external capital, we can split up external funding from the traditional pecking order into “family capital” and “external capital” in our family firm pecking order. Therefore, we can base our pecking order on the four proposed financing types.

4.4 Financing hierarchy

As a next step, ordered probit models are estimated to determine the most preferred hierarchy of the financing types (de Haan & Hinloopen, 2003). The distinct financing types are coded with ordinal variables, which impose the pecking order hierarchy when estimating the model, for example, internal financing, bank debt, family capital, and external capital = [0, 1, 2, 3]. There is one reference financing type and three alternative choices with an a priori imposed hierarchy. The next choice in the hierarchy is chosen when a threshold parameter's value has trespassed. For every possible hierarchy, an ordered probit model is tested. There are 24 different orders, but every order has a twin with an opposite sign and thus a perfect inverse correlation. Because of this, we consider 12 ordered probit estimates, which results in 12 log likelihoods, one for every model. These numbers will then be compared by likelihood ratio tests to see if the hierarchies differ significantly from each other and to reveal which hierarchy fits the data best.

Table 6 reports all 66 pairwise likelihood ratio tests. The results of these tests show if the hierarchies differ from each other and make it possible to determine a ranking of the hierarchies. The hierarchies in the columns and rows are sorted by their likelihood values, from lowest to the highest (de Haan & Hinloopen, 2003). The likelihood ratio tests are computed as $-2 [\ln(\text{likelihood}_{\text{col}}) - \ln(\text{likelihood}_{\text{row}})]$. Significance values at 5% and 1% level are 3.84 and 6.63, respectively. Out of these analyses, we can draw two conclusions. First, as seen in Table 6, most of the hierarchies differ

Table 6 Likelihood ratio test results

	h_k	h_l	h_h	h_j	h_g	h_i	h_e	h_f	h_d	h_b	h_c	h_a
h_k	0.000											
h_l	6.648***	0.000										
h_h	12.716***	6.068**	0.000									
h_j	13.408***	6.760***	0.692	0.000								
h_g	18.128***	11.480***	5.412**	4.720**	0.000							
h_i	34.444***	27.796***	21.728***	21.036***	16.316***	0.000						
h_e	54.198***	47.550***	41.482***	40.790***	36.070***	19.754***	0.000					
h_f	71.522***	64.874***	58.806***	58.114***	53.394***	37.078***	17.324***	0.000				
h_d	75.190***	68.542***	62.474***	61.782***	57.062***	40.746***	20.992***	3.668	0.000			
h_b	78.734***	72.086***	66.018***	65.326***	60.606***	44.290***	24.536***	7.212***	3.544	0.000		
h_c	80.114***	73.466***	67.398***	66.706***	61.986***	45.670***	25.916***	8.592***	4.924**	1.380	0.000	
h_a	94.056***	87.408***	81.340***	80.648***	75.928***	59.612***	39.858***	22.534***	18.866***	15.322***	13.942***	0.000

** and *** significant at the 5% and 1% level, respectively

Table 7 Hierarchies and their ranking according to their likelihood

Hierarchy	Internal finance	Bank loans	Family	External	Ln(likelihood)	Pseudo- R^2	Rank at 1%	Rank at 5%
h_a	0	1	2	3	-1194.945	0.0593	1	1
h_b	0	1	3	2	-1202.606	0.0533	2	2
h_c	0	2	1	3	-1201.916	0.0538	2	2
h_d	0	2	3	1	-1204.378	0.0519	2	2
h_e	0	3	1	2	-1214.874	0.0436	3	3
h_f	0	3	2	1	-1206.212	0.0504	2	2
h_g	1	0	2	3	-1232.909	0.0294	4	5
h_h	1	0	3	2	-1235.615	0.0273	4	6
h_i	1	2	0	3	-1224.751	0.0358	4	4
h_j	1	3	0	2	-1235.269	0.0276	4	6
h_k	2	0	1	3	-1241.973	0.0223	5	8
h_l	2	1	0	3	-1238.649	0.0249	6	7

significantly from each other. For every significant result, we can thus conclude that the two hierarchies are not equally preferred, but one is preferred over the other. Only four pairs are not significantly different at the 5% level: $[h_j, h_h]$, $[h_d, h_f]$, $[h_b, h_d]$, and $[h_c, h_b]$. Four additional pairs ($[h_h, h_i]$, $[h_g, h_h]$, $[h_g, h_j]$, and $[h_d, h_c]$) are not significant different at the 1% level.

Second, Table 7 shows the resulting ranking of the 12 hierarchies. Both on the 5% and 1% significance level, one order is preferred the most in our

sample: h_a . The family firms in our sample first opt for internal finance, followed by bank debt. Then, family capital will be preferred over external capital. So, when including family capital into the traditional pecking order, it will be preferred over external financing. This is what we could expect from the peculiar financial logic of family firms. For these firms, it is important to lower risk and to retain control over the family firm (Gallo et al., 2004), which explains why family capital will be preferred over external finance.

Table 8 Continuation-ratio logit estimations

	Model 1	Model 2	Model 3
Financial variables			
Liquidity	-5.515 (-7.62)***	1.453 (1.74)*	-3.522 (-1.64)
Profitability	-2.209 (-1.76)*	-4.827 (-3.60)***	-0.383 (-0.13)
Size	-0.031 (-0.37)	0.058 (0.72)	-0.257 (-1.44)
Age	-1.060 (-4.54)***	-0.251 (-1.09)	0.523 (1.02)
Risk	0.019 (1.59)	0.011 (1.50)	-0.007 (-0.54)
Effective tax rate	0.269 (0.81)	-0.733 (-2.68)***	0.716 (1.44)
Family firm variables			
SEW <i>F</i>	-0.016 (-0.22)	-0.141 (-2.14)**	-0.468 (-3.13)***
SEW <i>R</i>	-0.089 (-1.29)	0.198 (3.15)***	-0.014 (-0.10)
Family Charter	-0.321 (-1.49)	0.728 (3.68)***	1.425 (3.78)***
Non-family CEO	-0.486 (-2.51)**	-0.443 (-2.19)**	0.259 (0.57)
Constant included	Yes	Yes	Yes
Controlled for year	Yes	Yes	Yes
Controlled for industry	Yes	Yes	Yes
X^2	161.56***	72.69***	36.43***
Pseudo- R^2	0.1381	0.0680	0.1208
Number of observ	1,087	838	281

In model 1, the choice between internal and external financing is investigated; in model 2, the choice between bank debt and extra capital is investigated, and in model 3, the choice between family capital and external capital is investigated. Absolute value of z -statistics between parentheses. *, **, and *** significant at the 10%, 5%, and 1% level, respectively

The estimation results of the ordered probit regression for the preferred order further are analyzed.¹ However, only two cut-off points are significant: there is a clear distinction between internal financing and debt financing and between debt financing and family capital. However, between family capital and external capital, there is no significant difference. Additionally, the pseudo- R^2 we obtain from the ordered probit regression is quite low (0.0593). In order to dig deeper into these results, additional analyses are needed, making use of a continuation-ratio logit estimation (Agresti, 2003). This estimation technique is useful when a sequential mechanism determines the response outcome. In the traditional pecking order theory (Myers, 1984), firms first make their choice between internal financing and external financing. If external financing is needed, they will first choose for debt and then equity. This reasoning can be an explanation of our results: in the last step, when equity is chosen, there can be an additional decision between family and external capital. The existence of a sequential mechanism can be tested by a continuation-ratio logit estimation. This technique allows us to check whether there is indeed a first choice between

internal and external financing. Next, in case they opt for external financing, we can analyze whether they choose between debt and capital. Lastly, if family firms prefer to finance with an increase in capital, we can check if they choose between family capital and external capital. We will thus get a better view on how the financing decision is made.

4.5 Following an order in financing decisions

Table 8 gives the results of the continuation-ratio logit estimation. The results show that every model is significant. This means that family firms first choose between internal and external financing. When external financing is selected, the firm will compare debt against extra capital. Last, in case an increase in capital is chosen, the firm will make a choice between family capital and external capital.

As indicated in Table 8, financial variables clearly have an influence on the decision between internal and external financing (model 1). The coefficient estimates of liquidity, profitability, and age are significant and negative. Profitable, older firms and firms with more liquidity will choose for internal financing over external financing to finance investments. Only the non-family CEO variable is significant when looking at the family-specific variables. Family firms

¹ Results available on request.

managed by a non-family CEO more often use internal finance instead of external finance.

When looking at the decisions between bank debt and extra capital (model 2), some other effects are shown. Profitability has a negative significant effect which may indicate that profitable firms have more access to bank debt due to their better repayment capacity and will thus choose for this financing type over extra capital. This is in contrast with the positive effect we find concerning liquidity. Family firms with more liquidity have a higher probability to choose external capital. Investors are more open to invest in firms with high liquidity, which makes access to extra capital easier for these firms. Retention of control (*F*-dimension of SEW) will cause family firms to prefer bank debt over extra capital. However, the opposite effect is seen with the *R*-dimension. The presence of a long-term view will make family firms prefer extra capital over bank debt. Thus, the control aspect and the long-term view give different results. This finding shows that it is important to look at the different dimensions of SEW separately. Debt may be seen as a way to decrease risk to lose control over the family firm; however, it may not be good from a long-term point of view. This can also be seen in the result of the coefficient estimate of the charter variable, which is positive. When the family firm has made agreements about the future of the family firm, external capital will be considered more. A negative coefficient estimate is found for the non-family CEO. The influence of the non-family CEO seems to ensure that debt will be chosen over extra capital.

Lastly, the choice between family capital and external capital is tested (model 3). Concerning the financial variables, none of our variable has an influence on this decision. However, concerning the family firm-specific variables, we find that the decision is influenced by the *F*-dimension of SEW. The retention of control will cause that family firms choose for family capital over external capital if a capital increase is needed. The variable *family charter* shows a significant positive coefficient: external capital is chosen over family capital. This openness towards external parties might be explained by the availability of clear agreements about external parties made by the family. Based on these agreements, introducing an external party will contain less risk of losing family control over the firm.

5 Discussion and conclusions

In this paper, we analyze 1087 incremental financing choices of 277 Flemish small- and medium-sized family firms, made between 2014 and 2018. We distinguish four different financing types: internal financing, bank debt, family capital, and external capital. This is the first paper that uses incremental financing decisions to empirically test a family firm pecking order. Using these incremental financing decisions enables us to truly test if there is a hierarchy in between the different financing types and to specifically look into the drivers behind every financing decision. Both these elements lack in previous research about a family firm-specific pecking order. Following de Haan and Hinloopen (2003), a multinomial logit regression is performed, which shows that there are indeed different drivers for family capital than for the other financing types. Based on these results, we use these financing types to create a family-specific pecking order. We modify the traditional pecking order by adding family-specific theoretical drivers and a family-specific financing type being “family capital,” which includes family equity and family loans. Based on an ordered probit model, we determine the preferred hierarchy between the financing types. The results show that first internal financing is preferred, followed by bank debt, family capital, and external capital. This is in line with the traditional pecking order of Myers (1984). However, family capital is added in the pecking order as a family-specific financing type between bank debt and external capital. Last, we use a continuation-ratio logit estimation to show that family firms first make a choice between internal financing and external financing. When external financing is needed, a choice will be made between debt financing and extra capital. And lastly, when extra capital is needed, the family firm chooses between family capital and external capital.

Our tests did not only focus on the addition of a family firm-specific financing type. As it is clear that problems related to asymmetric information are not fully capable of explaining the pecking order theory (Fama & French, 2005; Frank & Goyal, 2003; Lin et al., 2008), we look into different family firm variables linked towards the socioemotional wealth theory (Gómez-Mejía et al., 2007) as possible explanations of the financing choices. We thus used the

socioemotional wealth theory (Gómez-Mejía et al., 2007) as additional theoretical base in our family firm-specific pecking order. We selected two dimensions of the FIBER scale (Berrone et al., 2012): the *F*-dimension family control and influence and the *R*-dimension renewal of family bonds through dynastic succession. Through our analyses, we see that both the *R*-dimension and the *F*-dimension have an influence on the financing decisions. Especially a higher score on the *F*-dimension will limit the chances that family firms will use any kind of external funding. When it is thus important that the control over the family firms stays within the family, the family will be less willing to use extra capital. The *R*-dimension will cause family firms to choose for family capital when external funding is needed. The long-term view of the family over the firm makes family members more open to invest in the firm. Further, we test two other governance variables with a link to financing decisions, specific to family firms: having a family charter and a non-family CEO. Two important conclusions can be made. First, when family firms prefer to use family capital or external capital, it is more likely that they will have written down agreements in a family charter. These agreements will help to preserve the family character of the firm and make the long-term view on the firm clear. This can make the firm more open towards external financing parties because the agreements enable the integration of these parties in the firm without losing the family character of the firm. Second, even if a family firm has a non-family CEO, external funds will not be preferred more. The traditional pecking order will still be applicable: internal funds will be preferred over external funds and debt over extra capital (family capital or external capital) in case external funding is needed.

Our results contribute to the literature in at least four different ways. First, we contribute to the pecking order theory research by integrating family firm-specific elements in order to explain the preferred order. We use the socioemotional wealth theory as an additional theoretical basis for our pecking order. We conclude that not only information asymmetry has an influence on the preferred order, but also family firm-specific variables like the *F*- and *R*-dimensions of SEW. This indicates that family firm-specific elements, such as control considerations and long-term view on the family firm, will influence the financing decisions made and the order in which different

financing types are preferred. Second, we tested a pecking order specifically for family firms by adding a specific family firm financing type: family capital. It is necessary to distinguish between these two types of extra capital, as the reasoning behind the choice for family capital and for external capital is not the same. For example, the family remains in control over the family firm if family capital is used, while this is not the case when external capital is integrated. Third, we empirically contribute to the pecking order literature by using a method based on incremental financing decisions. Previous research used methods based on debt ratios or attitudes to test if family firms follow a pecking order behavior. However, based on these methods, it is not possible to formally test a hierarchy. This is only possible if incremental financing decisions are used, which we do in this paper. Finally, we contribute to family firm research by taking the heterogeneity of family firms into account when researching financing decisions. The results indicate that both goal-based differences as governance-based differences have an influence on the financing decisions made.

In addition to these contributions to extant research, our study also holds various practical implications. Our findings indicate that family firms who find retention of control important, or whose aim is to pass the firm to the next generation, will limit the use of any form of external financing. Yet, this is limiting the growth of family firms (Molly et al., 2012). Previous studies have highlighted the crucial role of external finance for SMEs (Beck & Demircuc-Kunt, 2006; Wright et al., 2015). Business advisors and policymakers should understand that it is SEW preservation that appears to hinder family businesses to open up to external financing through bank loans or external equity. Additionally, previous studies found that family business owners' intention to use external equity is influenced by their knowledge of it (Graves et al., 2022). Policymakers and family business advisors might therefore consider ways to reduce family business owners' fear of losing control—and thereby fostering firm growth—by enhancing their financial knowledge. For example, illustrating that incremental increases in the debt level not necessarily mean higher risks of bankruptcy might engender a more positive attitude towards external financing in optimizing their capital structure. From another point of view, the lower indebtedness of family businesses can

have advantages as well. In a crisis situation, such as the COVID-19 pandemic, these lower debt levels may have led to higher survival rates for family firms. Business advisors and policymakers should thus be aware that it gives family firms financial flexibility (Andrieu et al., 2017; Canton et al., 2013) in difficult situations.

This research has some limitations, which can provide fruitful avenues for future research. First, the pecking order theory is only one theoretical angle to look into financing decisions. There are several other theories, such as the trade-off theory, target adjustment behavior, or agency theory, that can be used to explain the financing decisions in family firms (Colli, 2012; Kayhan & Titman, 2007). It is certainly useful to test if firms also strive towards a target debt level, using incremental financing decisions. Second, our results show different effects from the two dimensions of SEW we use. This finding indicates that the concept SEW can thus not be seen as unidimensional but should be analyzed taking into account its different dimensions. Further research on financing decisions in family firms should focus on the potential opposite effects of different SEW dimensions. Third, we included a family firm-specific financing type: family capital. We show that this kind of capital is different from capital from external parties and therefore, these two types of capital should be distinguished from each other. However, in the current literature, still little is known about family capital. There may be elements, such as family conflicts and disagreement about risk-return characteristics, that may influence the use of this financing type. Additional research that focuses on this specific type of financing is thus necessary. Fourth, the sample used in this research consists of Belgian family firms. Belgium is a bank-based economy with a less developed bond market. A different institutional context may influence the outcomes of the tests. In addition, contextual differences may also apply to some key variables in our analysis like the family charter. We assumed that the family charter is actually the result of a dynamic development process to which all family members could contribute, leading to a shared vision concerning the financing strategy of the firm. We argued that this assumption is valid in the Belgian context, given its long-standing corporate governance code for private firms and years of efforts from employers organizations to raise the awareness on the importance of

the process in developing a family charter to reach a shared vision. However, this assumption might not always be valid in other institutional contexts. Therefore, future research may investigate the relationship between how a charter is developed and potential firm outcomes such as the financing strategy.

Fifth, this paper focuses on small- and medium-sized family firms. However, not all family firms are small- or medium-sized. Therefore, it may be interesting in future research to look for a confirmation of our findings on a sample of large family firms.

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