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**Financing Decisions in Family Businesses:** 

A Review and Suggestions for Developing the Field

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Abstract

Motivated by the growing attention to the financing decisions of family firms, this review brings

together the two highly-relevant research fields of family business and finance. This study critically reviews 131 articles on financing decisions in family businesses, published between

1977 and 2016 in 64 finance and management journals. We develop a state of the art on family business financing literature and present a model to guide extant and future research by

identifying gaps across the theoretical perspectives and across context-specific elements such

as family business heterogeneity and country-specific factors.

**Keywords:** family business, literature review, financing decisions

INTRODUCTION

In their seminal work, Modigliani and Miller (1958) declared financing decisions to be

irrelevant in a perfect capital market. Discussing and challenging their basic assumption of a

perfect capital market, many researchers have shown that, in the real world, financing decisions

matter (e.g., Stiglitz, 1969, 1974; Fama, 1978; Myers, 1984; Myers & Majluf, 1984). In family

firms, these decisions may be more relevant for both practical and theoretical reasons.

Practically, the importance given to family business financing decisions has been demonstrated

through EU policies that consider access to finance as one of the main challenges of family

firms (European Commission, 2015). Benavides-Velasco et al. (2013) along with Voordeckers,

Le Breton-Miller and Miller (2014) have highlighted the theoretical importance, showing that

finance is not only one of the top areas in family business research but also a growing area. This

attention, both practically and theoretically, is warranted, since the availability of sufficient

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financial resources is of critical importance for the family firm's survival and growth (Koropp et al., 2014). Financing, for example, has been linked to strategic decisions such as the timing of succession (Kimhi, 1997), the sale of the family business (Bhattacharya & Ravikumar, 2001), and the internationalization of the family firm (Benito-Hernandez, Priede-Bergamini & López-Cózar-Navarro, 2014). Overall, the above makes clear the significance of this topic for family firms and that more research is needed in this direction.

An understanding of financing decisions is clearly of great importance for family firms and scholars as this is considered along with the 'peculiar financial logic' that characterizes family firms (Gallo et al., 2004). Specifically, a review of the literature shows that several inconsistencies can be found and that various factors complicate a thorough understanding of family business financing decisions. Therefore, our aim in this article is to analyze and systematize prior work on financing decisions in family firms which will help identify (theoretical) shortcomings and present a framework for organizing (future) research in this field. We focus in this review on articles dealing with "all" types of family businesses, meaning that they can be characterized by family involvement in various ways, and can be private or public firms, small or large firms. Given the dispersed nature of the family business financing literature and the gap that still exists between the family business and finance field of research, we believe a thorough review can bring a large contribution to both disciplines and will form a good basis to elaborate future studies on finance in family businesses.

To the best of our knowledge, this is the first study that gives a state of the art on family business financing literature. Based on a comprehensive literature review we synthesize existing evidence on financing decisions in family businesses and present a framework for organizing and better understanding extant and future research on financing decisions in family firms. It structures current theoretical thinking and sets a research agenda for the future, containing several suggestions on theoretical integration, sampling and study design. This way,

we articulate and spotlight areas where family business scholars may most fruitfully direct their attention, which will in turn advance our knowledge of financing decisions in family businesses.

#### METHOD AND SAMPLE

### **Review Method**

In this article, we follow the systematic review method of David and Han (2004), which is explicit in its selection of studies and employs quantitative methods of evaluation. First, we searched for journal articles published in peer-reviewed journals until December 31, 2016, written in English language, thereby excluding book chapters or unpublished work. Second, we oriented our search toward the following two databases which cover major journals in the area of finance and business/management: Business Source Premier and Academic Search Elite. Third, in order to find relevant articles, we looked for the combination of a finance entity and a family business entity in the title and/or the abstract (Salvato & Moores, 2010; Pukall & Calabro, 2014). With respect to the latter, we focus on articles dealing with companies that are characterized by family involvement in various ways. This is also visible from the choice of our search keywords being used in the search engine: ((financ\*) OR (debt) OR (equity) OR (stock) OR (capital) OR (leverag\*) OR (IPO) OR (bank\*) OR (investor\*) OR (dividend\*) OR (borrow\*) OR (lend\*) OR (loan\*) OR (credit) OR (collateral)) AND (("family firm\*") OR ("family business\*") OR ("family enterprise\*") OR ("family influenc\*") OR ("family control\*") OR ("family owner\*") OR ("family manag\*") OR (family govern\*) OR ("founding family")).

An article had to provide conceptual advancements in the understanding of financing decisions in family firms or empirically test propositions regarding financing decisions within a family business context. Therefore, in a fourth step, the relevance was checked by reading all the abstracts. The remaining articles were read completely in order to ensure substantive relevance for this study. Finally, to ensure that no relevant article was missed, additionally the major outlets for family business research were scanned individually. They were selected from

previous literature reviews in the field (Kontinen & Ojala, 2010; Zahra & Sharma, 2004; Pukall & Calabro, 2014, Siebels & zu Knyphausen-Aufseß, 2012). We manually checked the indexes of Family Business Review, Journal of Business Venturing, Entrepreneurship: Theory and Practice, and Journal of Small Business Management. Additionally, we checked for studies in Journal of Family Business Strategy, which first appeared in 2010. Using the method and criteria described, a total of 868 manuscripts were identified and evaluated with 131 articles retained for review.

In a next phase, both authors independently screened the articles following a predefined coding scheme. In case of disagreement, a third family business scholar was asked to code the concerning article, after which a common understanding was reached. The following aspects were considered as important in analyzing the content of the articles: (1) focal topic area; (2) theoretical approaches (theories used, family business definition used); (3) methods (country of research, sample size, data source, period of research, quantitative or qualitative, analytical approach, temporal dimension, public or private or both, family versus nonfamily or within family); (4) main findings; (5) journal in which the article was published.

The review of these 131 papers was supplemented with data collected from an expert panel, consisting of prominent scholars in the family business field. The use of an expert panel can be considered as a qualitative way to explore and identify key themes in the literature and thus to provide additional insights (Jones & Gatrell, 2014). Additionally, this approach allows us to integrate the most recent thoughts on family business financing, and thus reduces the potential limitation of publication time lag in some scholarly journals. We emailed all associate editors of the two SSCI-ranked family business journals (Family Business Review and Journal of Family Business Strategy), together with some prominent family business and/or finance scholars. In total, nine scholars cooperated and provided us with valuable additional insights. We provided them with three questions on promising research topics, promising theoretical

frameworks, and other suggestions on finance for family business scholars. We first interpreted the answers to these questions for each scholar individually, followed by a comparison of the insights from all the scholars to find the most relevant suggestions.

### **General Sample Characteristics**

The articles on financing decisions in family firms accepted for the analysis are published in a wide variety of management/business, finance and economics journals, and have taken a rapid growth after the year 2000, especially in the management/business and the finance field. Appendix A contains a detailed description of the distribution of the sample across journals and their impact factor.

Our review further indicates that most studies on financing decisions in family firms are based on European data, followed by Asia and North America, while analyses on South American, African or Australian samples are rare. 81% of the studies focus on one single country, while in 19% of the articles data on multiple countries are included. Table 1 gives an overview of the most important methodological parameters of the selected articles.

Insert Table 1 Here

The majority of studies applied regression techniques, followed by categorical dependent variable analyses (logit, probit, tobit). The data mainly comes from (public) databases and in only 21 out of 131 articles, analyses are based on survey information. Qualitative studies based on interviews or case studies are quite exceptional. Most of the studies are oriented towards public family firms. The dominance of samples of public family firms might be explained by the widespread reliance on commercial databases and other secondary data sources. About 70% of the articles includes the criteria on how to identify family firms,

meaning that almost one out of three studies lacks a clear family business definition. Finally, two thirds of the studies in our sample makes the traditional comparison between family and non-family businesses without taking into account family business heterogeneity. When further examining this subsample of articles, we find no differences with regard to type of journal or date of publishing. Yet, papers that ignore family business heterogeneity use public databases more often as compared to the full sample of articles and make less use of survey data. Thus, although numerous scholars have stressed the importance to acknowledge the heterogeneity of family businesses, data limitations might be one explanation as to why the minority of financing studies actually takes this heterogeneity into account.

More than 40% of the articles in our sample discuss issues concerning debt decisions (e.g., leverage, debt maturity or target debt rate). Decisions regarding equity (e.g., buyouts, private equity, venture capital or IPOs) are discussed in 34% of the articles. Decisions related to retained earnings (e.g., dividend payout) are examined in 22% of the articles. Finally, other alternative financing decisions such as leasing, factoring or crowdfunding are discussed in about 2% of the papers.

When looking at the applied theoretical framework, we see a clear dominance of agency theory. In about half of the articles agency theoretical arguments are used for developing the hypotheses and explaining the results. Pecking order theory and the socioemotional wealth perspective (SEW) close the ranks in the top 3 of most frequently used theories. It is also remarkable that in almost one out of five articles no theoretical arguments are specified. When further investigating the characteristics of the articles that are not using a clear theoretical framework, we find that they are published in finance journals more often than in our full sample of articles. Articles without a theoretical framework are also generally older than studies that have a (partial) theoretical foundation.

#### WHERE ARE WE NOW?

#### **Theoretical Foundations**

Our survey of the literature on financing decisions in family firms shows that several traditional capital structure theories have been used. As described by Titman and Wessels (1988), Harris and Raviv (1991), Fama and French (2002), and Frank and Goyal (2003), most capital structure theories start from the trade-off or pecking order approach. Both of which are inspired by agency theory (Jensen & Meckling, 1976). Agency theory points to the information asymmetries and conflicts of interests between shareholders and bondholders, between shareholders and managers (principal-agent), and among shareholders (principal-principal). Trade-off theory (Modigliani & Miller, 1958; Myers, 1989) focuses on costs resulting from information asymmetries between shareholders and bondholders and on benefits such as a reduction of the free cash flow agency costs (principal-agent) resulting from the use of debt. Next to that, potential bankruptcy costs and deductibility of interest payments are considered to trade-off the costs and benefits related to debt financing to determine the optimal capital structure in a company. An alternative capital structure theory, known as the pecking order model, has been developed by Myers (1984). This model is based on information asymmetries between the firm and the capital supplier. As transaction costs arise for each new issue of securities or debt, firms will prefer to finance their investments first with retained earnings, then with debt, and finally with equity. In this way, the financing choice is driven by the firm's desire to minimize information asymmetry costs in raising external finance.

In addition to these traditional theoretical frameworks that mainly focus on the optimization of the firm's capital structure to maximize firm value, the literature gives evidence of non-traditional approaches to financing decisions in family firms. For example, Barton and Matthews (1989), Hutchinson (1995), and Romano, Tanewski and Smyrnios (2001) take into

account owner/manager preferences for understanding the capital structure of these firms. They point to the importance of control retention, risk aversion and non-financial values and goals in the owners'/managers' financial decision-making. This usually results in a higher preference for internally generated funds rather than external sources, or debt financing rather than external equity funding. Recently, these approaches and arguments have been linked to theoretical frameworks such as the stewardship theory (Davis et al., 1997), the socioemotional wealth (SEW) perspective (Gomèz-Meija et al., 2007) and the theory of planned behavior (Ajzen, 1991). Stewardship theory starts from the idea that individuals in a company are not predominantly self-serving, but that their motives support those of the company and go beyond purely economic goals (Zahra et al., 2008). As opposed to agency theory, which focuses on extrinsic motivation of individuals serving themselves, stewardship theory stresses their intrinsic motivation. The SEW perspective is rooted within the behavioral agency model (Wiseman & Gomez-Mejia, 1998) and refers to the firm's non-financial aspects that meet the family's affective needs, such as identity, exercising family influence and perpetuating the family dynasty (Gomèz-Meija et al., 2007). According to this perspective, family firms are expected to pay significant attention to maintaining family control and are loss averse when their SEW is threatened. Finally, the theory of planned behavior considers the family's attitudes and values, preferences and norms, and behavioral control as determining factors of behavioral intentions, which eventually influence behavioral decisions and choices (Koropp et al., 2014).

## What Do We Know About Financing Decisions in Family Firms?

In this section, we discuss family business financing studies in detail, by categorizing them into three groups, based on the source of financing they deal with.

#### Debt

When family businesses consider using external sources of financing, leverage remains by far the most preferred funding option for family firms (Poutziouris, 2001; Romano, Tanewski, & Smyrnios 2001; Croci, Doukas & Gonenc, 2011; Koropp et al., 2013; Burgstaller & Wagner, 2015). As indicated by Blanco-Mazagatos, Ouevedo-Puente and Castrillo (2007), research findings give evidence of a pecking order in financing family firms, where debt instead of new equity is preferred when additional external financing is sought. However, other studies find evidence of a negative effect of family ownership on the use of debt financing in both private (Gallo & Vilaseca, 1996) and public (Mishra & McConaughy, 1999) family firms. This negative relation is explained by the dominance of control risk motivations, the fear of bankruptcy costs and the bank's credit underwriting policy which concentrates on owners' wealth instead of the repayment capability of the family firm (Gallo & Vilaseca, 1996; Mishra & McConaughy, 1999). An interesting phenomenon that has further been linked to the lower leverage in many family businesses, concerns the zero-leverage company, which tend to occur more often in family than in non-family firms, explained by a stronger aversion in family firms to the risks linked to financial distress (Strebulaev & Yang, 2013). Finally, studies of Coleman and Carsky (1999) and Bjuggren, Duggal and Giang (2012), both focusing on privately-held firms, contradict the above findings, as they were not able to find significant differences in the level of debt used by family versus non-family firms.

This overview shows that the literature still remains inconclusive on the level of debt used in family firms. This is no surprise, since, according to Gonzalez et al. (2013), Schmid (2013) and Burgstaller and Wagner (2015), a trade-off needs to be made in family firms between retention of control, which favors the use of debt financing over external equity, and risk-aversion, which stimulates the company to adopt more cautious attitudes toward debt. These non-traditional, behavioral aspects illustrate the complexity of the leverage decision in family firms. Another factor that further complicates the debt choice analysis concerns the wide

array of leverage alternatives. Although most studies focus on the total debt rate, the work of Chagantie and Damanpour (1991), Al-Ajmi et al. (2009), Mishra and McConaughy (1999), Shyu and Lee (2009), Croci et al. (2011), Poutziouris (2011), and Segura and Formigoni (2014) considers the distinction between short- and long-term debt financing, where findings are mainly explained through agency, pecking order, and trade-off theory. Since information asymmetry and transaction costs differ according to the debt maturity structure, this complicates the comparison between studies and the search for consistent results.

Furthermore, most studies in our literature review focus on the comparison between family and non-family businesses. In almost two out of three studies that were reviewed, a comparison is explicitly made between these two types of organization. The heterogeneity among family businesses is therefore often neglected. However, the differences within the group of family firms may potentially be even larger than the differences between family and nonfamily firms (Chua, Chrisman, Steier & Rau, 2012) and researchers have therefore called to focus on the heterogenous nature of family businesses (Chua et al., 2012; Nordqvist, Sharma & Chirico, 2014). Some studies on capital structure do take this into consideration by integrating the family's role in management (Schmid, 2013), the difference between ownermanaged and non-owner-managed companies (Batten & Hettihewa, 1999), or the presence of independent outside directors in the governance of the firm (Napoli, 2012). It is clear that these differences in the management, ownership and governance structure can influence the relationship and information asymmetries between shareholders and bondholders. Other authors consider family ownership by focusing on the distinction between cash-flow and control rights, and the presence of principal-principal agency problems, and how this influences the family firm's leverage (King & Santor, 2008; Shyu & Lee, 2009). Also Bjuggren et al. (2012) focus on ownership and find evidence of a u-shaped relation between ownership dispersion and debt in private family businesses, which confirms the earlier work on private family firms of Schulze, Lubatkin and Dino (2003). Schulze et al. (2003) found evidence that the risk-attitude of private family firms changes due to the ownership dispersion in family businesses. Especially sibling partnerships were found to use less debt, and thus willing to bear less risk, compared to controlling owners and cousin consortiums, since they are characterized by increased levels of loss aversion and misalignment among family members.

A number of authors further stress the importance of the generational effect on a family firm's capital structure. While most of these studies exclusively focus on privately-held firms (Molly et al., 2010, 2012; Blanco-Mazagatos et al., 2007; Burgstaller & Wagner, 2015; Koropp et al., 2013b), others include both public and private firms in their sample (Gonzalez et al. 2013; Amore et al., 2011). Findings indicate that family generation negatively impacts debt financing (Molly, Laveren & Deloof, 2010; Molly, Laveren & Jorissen 2012), while Blanco-Mazagatos et al. (2007) and Gonzalez et al. (2013) come to the opposite conclusion. Burgstaller and Wagner (2015) were not able to confirm a generational effect on the use of debt in the family firm. Finally, Koropp et al. (2013b) and Amore et al. (2011) investigate the impact of succession on the firm's financing policies, where the latter study for example finds that non-family CEOs stimulate the use of leverage. It is also important to stress that inconsistent findings can partly result from the focus in different studies either on behavioral aspects (retention of control and risk aversion), or on agency theoretical aspects (free cash flow problems and shareholderbondholder agency problems), or on both. In addition, some studies only indirectly measure a generation effect through the firm's age, or only make a comparison between founders and descendants without discerning between first-, second- or later-generation family firms.

Where most of the studies on debt policy in family businesses take into account the demand side of financing, other studies mainly focus on the banks' point of view and the applied debt conditions towards family businesses (supply side). Overall, these studies find that banks generally have a positive feeling towards family businesses, reducing potential shareholder-

bondholder agency problems. They are considered to be better borrowers with less moral hazard problems (Bopaiah, 1998). This higher trust of banks in family firms results in easier access to credit in general (Bopaiah, 1998), and more long term debt in particular (Croci et al., 2011). In addition, the easier access to debt financing enables family firms to adjust faster toward their target leverage (Pindado et al., 2015). With respect to this, Song and Wang (2013) focus on the importance of the relational strength between the family firm and the financial institution in order to lower information asymmetries. Chua, Chrisman and Kellermans (2011) even bring forward the relevance of borrowing social capital (relying on relationships to get access to resources) available in the family to improve access to bank financing in new family ventures. Other findings indicate that several aspects, such as the presence of pyramid structures (Masulis, Pham & Zein, 2011) lower the financing constraints imposed by banks on family firms. Finally, Chen, Ding, Wu and Yang (2016), find that family firms benefit less from the adoption of IAS (International Accounting Standards) than nonfamily firms in terms of access to foreign banks.

When turning to the cost of debt financing, Anderson, Mansi and Reeb (2003) also focus on the owner-debtholder agency problem to analyze debt financing in publicly-listed US family firms. They find evidence that the cost of debt is lower in firms with family ownership, external CEOs or family CEOs who belong to the founding generation. Also Boubakri and Ghouma (2010) focus on the information asymmetries between shareholders and bondholders in public firms, but they come to an opposite conclusion in their European and Asian sample. Because bondholders fear the expropriation by controlling shareholders, family control is found to increase the cost of debt funding. Similarly, Tanaka (2014) finds that bondholders of listed Japanese firms are concerned about family agency conflicts, with an increasing effect on the cost of public debt as a result. The findings of Yen et al. (2015) can be linked to these previous studies, as they conclude that public family firms enjoy more favorable loan contracts than

nonfamily firms, but that this positive effect diminishes when they are more likely to expropriate external investors. Finally, Waisman (2013) further examines the effect of family ownership and the takeover friendliness of a country, on the pricing of loans in US listed firms.

A limited number of studies deepen the understanding of the shareholder-bondholder agency relationship by taking collateral or guarantees into consideration. Bagnoli et al. (2011) find that listed family firms use financial covenants more intensively than non-family firms. Steijvers and Voordeckers (2009) and Steijvers, Voordeckers and Vanhoof (2010) further point to the use of personal collateral to reduce agency problems in private family firms. Similarly, Voordeckers and Steijvers (2006) present several determinants of collateral protection such as bank competition, the use of credit, the length of the relationship between the bank and the borrower, next to various other factors. In line with these studies, Schmid (2013) finds evidence that the level of debt used in family firms depends on the level of credit monitoring and is different whether they are located in bank-based versus other economies.

Finally, a number of studies focus on alternative forms of debt financing. Di Giuili, Caselli and Gatti (2011), Fitó, Moya and Orgaz (2013) and Landry, Fortin and Callimaci (2013) stress to investigate also other financial instruments used by SMEs such as leasing or factoring. Evidence is found that family firms are less eager to use leasing (Landry et al., 2013), and that the level of financial sophistication (making use of non-basic financial products such as leasing) increases over generations and when the family firm is characterized by an external CFO or external shareholder (Di Giuili et al., 2011). Other studies point to the intertwinement of household and business financing (Haynes, Walker, Rowe & Hong, 1999; Yilmazer & Schrank, 2006; Muske et al., 2009), or investigate the use of informal financing coming from friends and family of the owner-manager (Coleman & Carsky, 1999). The studies indicate that family firms do not significantly differ from nonfamily firms in their use of informal sources of financing (such as loans from family and friends) or financial intermingling (Coleman & Carsky, 1999;

Yilmazer & Schrank, 2006), and that the level of intermingling can be linked to the fact whether the business is incorporated or a sole proprietorship (Haynes et al., 1999), or wether the family business is operated by copreneurs (Muske et al., 2009). Finally, Lappalainen and Niskanen (2013) and Psillaki and Eleftheriou (2015) specifically focus on trade credit, a type of non-financial leverage, which is extensively used in many privately-held family firms in practice as well. Lappalainen and Niskanen (2013) focus on the use and attitude towards trade credit in family and nonfamily SMEs, while Psillaki and Eleftheriou (2015) rather investigate the relation and complementarity between bank borrowing and trade credit.

### External Equity

Another stream of research focuses on the use of external equity. On the one hand, several studies indicate that family involvement appears to result in lower use of external equity (Wu et al., 2007; Poutizouris, 2011), both based on samples consisting of private as well as public firms. Usually the distance between family firms and outside investors is quite large, mainly due to the so-called empathy gap between owners and investors (Poutziouris, 2011) or because of the generally preferred retention of control rather than the firm's growth and development (Wu et al., 2007). On the other hand, contrary to the pecking order perspective, King and Peng (2013) find that in industries characterized by cyclicality, capital intensity, and growth, large listed family firms rely on equity financing before debt financing to fund their expansion, mainly because of a strong aversion linked to financial distress.

When further analyzing the literature on external equity in family firms, a number of studies focus on the use of private equity and venture capital. These sources may be more preferred than generally thought because of the opportunities it offers to fund the family firm transition (Upton & Petty, 2000), or because of the non-financial benefits that such investors can bring to the family such as managerial support, expertise and contacts (Tappeiner et al., 2012; Marti et al, 2013). Other studies investigate the impact of private equity investors on the

long-term performance (Viviani, Giogino & Steri, 2008, Desbrières & Schatt, 2002), the governance structure and its benefits and costs (Achleitner et al., 2010) and the strategy (Scholes et al., 2009) of the family business. Evidence is found that the participation of private equity reduces performance in the years after an IPO (Viviani et al., 2008) or after a leveraged buy-out (Desbrières & Schatt, 2002). With regard to strategy, Scholes et al. (2009) come to the conclusion that private equity backed buy-outs strongly impact the strategy of family firms, but that this impact varies according to the presence of the founder, the presence of managers with equity stakes, the involvement of non-executive directors, and the involvement in succession planning. Finally, while most studies take the perspective of the family business (demand side), a number of recent studies focus on the perceptions of private equity investors (Dawson, 2011) or institutional investors (Fernando, Schneible & Suh, 2014) towards family businesses (supply side). Dawson (2011) finds that private equity investors take into account human resources, the level of professionalization and the opportunity to reduce agency costs when selecting family firms. Fernando et al. (2014) bring forward that institutional investors avoid to invest in family firms because of increased type 2 agency problems compared to nonfamily firms.

Firms can also acquire equity financing through an initial public offering (IPO). Our sample contains several papers on this topic, all published after the year 2000. While this is an important event for all kinds of firms, it especially is for family businesses. After all, a change in ownership structure by going public implies a significant change in the governance of family businesses, because it is often the first time that outside shareholders come into play (Ehrardt and Nowak, 2003). The most important financial reason for family businesses to go public, is the need to raise higher funds to finance growth or to rebalance the debt-equity level (Mazzola and Marchisio, 2002). Research on the IPO process can be divided into three categories: the pre-IPO process, the IPO itself (first trading day), and the post-IPO process. As the aim of this

article is to review studies on the financing decision in family firms, we only examine studies on the pre-IPO process and the IPO itself, and not the performance after an IPO (post-IPO).

The first stream of research indicates that outside expertise in the pre-IPO process appears to be advantageous for family-controlled firms. Family firms may thus benefit from associations with venture capitalists (Astrachan & McConaughy, 2001) and with prestigious investment banking firms (Walker, 2008) as this lowers the information asymmetries between the issuer and the investors. The second stream of research investigates the initial public offering itself, and more in particular the relation between the closing price and the offer price (IPO over- or underpricing). Family firms are found to have 10 percentage points more IPO underpricing than nonfamily firms (Leitterstorf & Rau, 2014). A number of studies have further investigated this phenomenon of family business IPO underpricing. IPO underpricing is found to be positively related to family ownership (Lin & Chuang, 2011), generational stage (Yu & Zheng, 2012), participation of family members at board level (Hearn, 2011), and the willingness to preserve their SEW (Leitterstorf & Rau, 2014). IPO underpricing is found to be negatively related to the ratio of nonfamily directors (Ding & Pukthuangthong-Le, 2009), to wider dispersion of family ownership (Hearn, 2011), and to associations with prestigious investment banking firms (Walker, 2008). These findings indicate that family firms tend to use IPO underpricing as a way of retaining control of the family firm. Alternatively, family firms' IPO underpricing might be a sign of risk aversion, as IPO underpricing reduces the risk of lawsuits (Ibbotson, 1975) and the risk of a failed IPO (Welch, 1992). Recently, Cirillo et al. (2015) find that family firms positively influence IPO value, although the authors measure IPO value differently by separately considering offering and closing price, and by including accountingbased information.

Other empirical studies investigate differences between family and nonfamily firms for several stock exchange-related phenomena, by focusing mainly on the presence of principalprincipal information asymmetries and the importance of retention of control. For instance, family-controlled firms are found to have higher voting premiums (Caprio & Croci, 2008), have increased liquidity when double voting rights are used (Ginglinger & Hamon, 2012), and have a higher price of vote in unifications (Hauser & Lauterbach, 2004) than nonfamily firms. In addition, a number of studies focus on the cost of equity capital in listed family firms in relation to various other topics, for example to the Asian financial crisis (Boubakri et al., 2010), to CSR practices in listed Taiwanese firms (Wu et al., 2014), or to corporate governance attributes (Tran, 2014). Finally, the recent study by Jain and Shao (2015) investigates the financial policy choices following an IPO, and find that family firms have a higher leverage, prefer a longer debt maturity structure, and raise less external capital post-IPO compared to non-family firms.

### Retained Earnings Versus Dividends

Pecking order theory states that firms prefer to finance new investments first internally, through retained earnings (Myers, 1984). All earnings that are retained in the firm, however, cannot be distributed as dividends. This has led researchers to examine this trade-off (retained earnings versus dividend payouts) that family businesses are facing when deciding on how to allocate their earnings. The majority of the articles study dividend policy in the context of publicly-held firms, and about half of the dividend articles in our literature review focus on firms in Asia, where many economies are characterized by considerable family ownership of listed corporations (Chen et al., 2005). The studies in our sample investigate one (or more) of the following aspects of dividend policy: propensity to pay dividends, dividend payout level or dividend smoothing.

Regarding the propensity to pay dividends, researchers found family firms to be less likely to pay dividends than nonfamily firms because of their stronger focus on the firm's long term orientation (Lace et al., 2013). Within the group of family firms, SMEs (How, Verhoeven & Wu, 2008) and private family firms with passive family shareholders (Michiels,

Voordeckers, Lybaert & Steijvers, 2015) are more likely to pay dividends than other family firms, mainly explained by information asymmetries between majority and minority shareholders.

A large group of studies on the topic of dividend policy particularly examines the level of dividend payout. Most researchers agree that family firms have higher dividend payout levels than nonfamily firms (Chen et al., 2005; Carney & Gedajlovic, 2002, Yoshikawa & Rasheed, 2010; Setia-Atmaj, Tanewski & Skully, 2009; Pindado, Requejo & Torre, 2012; Huang, Chen & Kao, 2012). These studies thus find support for the expropriation hypothesis, according to which paying dividends is a mechanism that can be used to align the interests of controlling family and minority shareholders (Faccio et al., 2001; Setia-Atmaja et al., 2009). Thus, the higher dividend payouts of family firms might be considered as a result of investors demanding higher dividend payouts from companies with the highest risk of expropriation of minority shareholders.

Risk arguments are also often used to explain the higher dividend payout levels of family firms. Some authors explain the higher dividends in family firms by using risk aversion arguments. Family firm owners consider high retained earnings as an undesirable concentration of firm-specific risk (Carney & Gedajlovic, 2002; Huang et al., 2012) and a more concrete threat to their welfare than a decline in the stock price (DeAngelo & DeAngelo, 2000), and therefore prefer dividends which can be reinvested in other firms or which can be used for personal consumption. Other authors focus on arguments of control risk (or retention of control) to explain the higher dividend payouts of family firms. For example, to enhance their wealth through capital gains, family firm owners will have to sell their shareholdings, which will dilute their control over the firm (Yoshikawa & Rasheed, 2010; Vandemaele & Vancauteren, 2015). Also, when a family has low levels of cash flow rights, controlling families of public firms are found to pay higher dividends in order to preserve personal wealth due to the threat to lose

control at any time (Huang et al., 2012). In addition, several studies confirm the importance of taking into account the heterogeneity of family businesses when studying dividend payout. For example, family SMEs are found to pay out more dividends than larger family firms (How et al., 2008). Family influence on dividend policy was also proven to vary depending on family involvement in ownership, management and control, for a sample of private firms (Vandemaele & Vancauteren, 2015) and a sample consisting of both private and public firms (González, Gúzman, Pomp & Trujillo, 2014). The theoretical arguments used in both papers differ and includes factors such as retention of control or information asymmetries between shareholders.

Regarding dividend smoothing, family firms are found to have less stable dividends than state-owned firms (He et al., 2012) and nonfamily firms (Gugler, 2003), which suggests that family firms can adjust their dividend policy as investment opportunities or financing needs occur and thus have more freedom in making financing decisions. On the contrary, Pindado et al. (2012), who use a more extensive database than the abovementioned studies (using data from 645 public firms in 9 different countries, over a period of 10 years) find that family firms distribute more stable dividends than nonfamily firms. These authors argue that family firms smooth their dividends to avoid future financing constraints such as running out of capital and thereby compromising profitable future investments. In comparison to the work of Gugler (2003) the authors do not focus on principal-agent but on principal-principal agency problems.

### A Framework to Understand Family Business Financing Decisions

In Figure 1, we present a framework which structures the extant literature on financing decisions in family firms. As has become clear from the above literature review, several factors complicate a thorough understanding of family business financing decisions and may lead to inconsistent results: the theoretical arguments applied, the demand- versus supply-side focus, the comparison between family and nonfamily firms or within the group of family firms, and contextual factors. Appendix B gives an overview of the extant literature reviewed in this article

and how to frame these studies in the structure of Figure 1. This framework will also be used in the next section to structure suggestions to further develop the field in the future.

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Insert Figure 1 Here

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### WHERE SHOULD WE GO?

Based on the literature review above and on the results of an enquiry of an expert panel in the area of finance and/or family businesses, this section discusses opportunities and challenges for future research in the field of financing decisions in family firms. We discuss opportunities and challenges across theoretical perspectives, as well as across context-specific elements. Suggestions of potential research questions are stated throughout the text and are summarized in Table 2.

### **Future Research Opportunities and Challenges Across Theoretical Perspectives**

Researchers have been questioning the applicability of classical agency theory to family firms because of the absence of a separation between ownership and control, especially in privately-held family businesses (Anderson and Reeb, 2003; Ang et al., 2000). Still, agency theory and other traditional finance theories such as pecking order theory and trade-off theory are among the dominant frameworks used by family business researchers in studying financing decisions (Titman & Wessels, 1988; Harris & Raviv, 1991; Fama & French, 2002; Frank & Goyal 2003). However, a number of limitations to the applicability of these traditional finance theories to explain family business financing decisions are worth getting attention.

First, the agency theory, pecking order theory and trade-off theory are all based on the wealth maximization principle of organizations, assuming that mainly financial motives will influence financing decisions. More specifically, the trade-off theory assumes that firms are

trying to reach an optimal debt level by balancing the costs of debt against the benefits of debt (Kraus & Litzenberger, 1973). As such, this theory partly relies on agency theory to identify costs related to information asymmetries between shareholders and bondholders, and benefits related to the potential of debt financing in reducing information asymmetries between shareholders and managers. Pecking order theory focuses on the diminishing preference in using retained earnings, then debt and finally external equity, based on information asymmetry costs linked to these different forms of financing (Myers, 1984). While these financial arguments can be applied to family businesses, financing behavior in family firms is not exclusively driven by financial motives, but also by non-economic considerations such as the risk-taking propensity, emotions, preferred values and goals of the family. Thus, traditional finance theories, in their current form, are unable to fully explain financing behavior in family firms. Therefore, it is worth investigating further how behavioral arguments (such as, for example, SEW, theory of planned behavior, stewardship theory) relate to each other and to the dominant agency perspective for explaining financing behavior. Despite the increasing attention to the behavioral financing approach, it remains an under-researched topic that has much potential in analyzing financing decisions in family firms. Future research that links noneconomic considerations such as family business goals and risk preferences to capital structure decisions would fill a gap in the literature on the actual incentives and motives of family owners to steer capital structure decisions. A way to open this black-box can be through qualitative research, which is very relevant in examining and understanding processes (Pratt, 2009; Langley & Abdallah, 2011), but at the same time it allows answering "why" and "how" questions which are very difficult to answer through quantitative research methods (Reay, 2014). Relying on interviews, case studies or observations would enable scholars to significantly improve our knowledge on why certain sources of financing are used in family firms and how financing decisions are taken in reality (Shyu & Lee, 2009; Koropp et al., 2014). Qualitative case study research is also ideal to help sharpen existing theory by pointing to gaps and beginning to fill them (Siggelkow, 2007). Alternatively, when performing quantitative research, a multi-respondent approach in which all persons potentially involved in the financial decision-making process are questioned, would on the one hand allow researchers to gain representativeness by forming a consensus-based dataset in which method biases caused by individual respondents' affect or mood are reduced (e.g., Chua et al., 1999; Podsakoff et al., 2003). On the other hand, dispersion models that take into account discord among family members are interesting to explore as well in the analysis of financial decision making in family firms (see Holt, Madison & Kellermanns, 2017). This way, broader and deeper theoretical insights on the financial decision-making process can be obtained.

A second main limitation of the traditional finance theories is that they do not clearly distinguish between the demand and supply side of financing. If family businesses for example make less use of certain sources of financing, the main question is whether this is because of a restricted access to external financing (supply) or because of a lower willingness to attract financing (demand). In the traditional finance theories both perspectives can be detected. For the trade-off and agency theory, the agency costs of debt between shareholders and debtholders refer to the supply side of financing as it forms one of the main arguments why some family businesses are constrained in attracting financing. With respect to the demand side we can refer to the costs of financial distress which increases the reluctance to use debt financing, or to the debt control mechanism which can stimulate family business owners to use debt financing to reduce information asymmetries between managers and themselves. When turning to pecking order theory, both perspectives can be detected as well. The information asymmetry costs linked to certain forms of financing put constraints on the provisions of external financing to family firms (supply), leading to a sequential order in the preference of using various sources of financing (demand). Thus, in developing and testing hypotheses, and in selecting and

constructing samples, future research should *make a clear distinction between supply-side and demand-side perspectives*. Otherwise, findings will be biased as they will not be able to separate demand-side from supply-side arguments in explaining the relation(s) found.

Furthermore, following a behavioral approach extends our knowledge on the demand side of financing, which is only partially captured by the traditional finance theories, and to gain more knowledge on how it relates to the supply-side factors of financing. Especially the SEW perspective (Gómez-Mejía et al., 2007), which is based on behavioral agency theory in management literature, appears to be a promising framework to study demand aspects of financing decisions in family businesses. Preservation of SEW is usually an important objective for many family-owned businesses, which translates itself among others in keeping independence and control in ownership, exerting control over the company's strategic direction, limiting the role of outside directors in the board, building strong and long-term relations based on trust, decision-making affected by emotions and sentiments, and long-term evaluation of investments (Berrone et al., 2012). Each of these factors is likely to impact the willingness of family businesses to use various sources of financing, extending our view on the demand side of financing. In addition, SEW arguments can also be linked to the availability of external financing (supply), since capital suppliers might take these arguments into account as well when making financing/investment decisions. In this respect, future research might investigate whether SEW aspects in family firms are considered either a risk-enhancing or a risk-reducing motive by capital suppliers? Overall, SEW could provide benefits to the finance field by integrating the idea that family firms are willing to sacrifice economic gains in order to preserve noneconomic utility. At the same time family business financing could also be an interesting context to deepen our knowledge on the theoretical underpinnings of SEW, which still need further attention and development (Chua et al., 2015). In addition, also other non-traditional behavioral perspectives such as the stewardship theory or the theory of planned behavior form

promising theoretical frameworks for future studies in this field, as they consider noneconomic goals and pro-organizational behavior in the family firm (stewardship theory), and norms, attitudes, perceived behavioral control and behavioral intentions of family owners/managers (theory of planned behavior).

Another important aspect in explaining the demand side of financing revolves around the interaction between financing and growth, and the extent to which capital structure and growth are determined by the willingness to borrow versus the willingness to grow. In the extant literature, financing and growth behavior have been studied separately, although several studies suggest that financing and growth are interrelated. According to pecking order approach growth is an important determinant when analyzing the capital structure of a company (Fama & French, 2002). Other studies point at the impact of a firm's capital structure on a firm's growth rate, where firm growth is constrained by the availability of financial resources (Carpenter & Petersen, 2002; Oliveira & Fortunato, 2006). It is therefore important for future research to further explore the simultaneous interaction between a firm's debt level and growth rate and potential endogeneity by using the appropriate estimation techniques such as simultaneous equations analysis, as demonstrated for example in the work of Molly et al. (2012).

Next, traditional frameworks such as pecking order theory also need a more extended and detailed view beyond the use of classic financing forms such as retained earnings, debt and external equity. For example, *alternative forms of financing* such as leasing, crowdfunding, mini bonds, state-subsidized loans, subordinated loans and intermingling between firm and household finances should be incorporated in these traditional theories. This way, scholars can make an interesting and incremental contribution to family business literature by modifying existing theories to improve their explanatory power (Reay & Whetten, 2011).

**Future Research Opportunities and Challenges Across Context-Specific Elements** 

Heterogeneity Among Family Firms

In analyzing the articles on financing decisions in family firms, a significant number of studies do not integrate the criteria to identify family firms. Our review shows that about 25% of the articles published after 2010 still lacks a clear family business definition. The remaining studies define family firms in very diverging ways. This is especially troublesome because it hampers the accumulation of knowledge (Schulze & Gedajlovic, 2010). In light of this discussion in family business literature on what exactly characterizes a family business, we urge researchers to take fully into account the family firm definition used in their sample, in order to enhance cross-study comparison of research results. Moreover, we also recommend scholars to focus more strongly on the heterogeneity of family businesses and how this influences their financing decisions, since the majority of articles exclusively takes into account the oversimplified comparison between family and nonfamily firms. Family firms could indeed have a peculiar financial logic, but this is likely to be influenced by a variety of factors that can be traced back to the internal characteristics of the family and the business, and of the external environment as well. As such, we are echoing recent calls for research that have been made by Chua et al. (2012) and Nordqvist et al. (2014) to go beyond comparisons between family and nonfamily firms and to focus on the heterogeneous nature of this type of organization. Most studies in our review rely on secondary data which often do not account for this family business heterogeneity in a refined way. Analysis based on detailed survey data or qualitative research could deepen our knowledge in this direction. In addition, meta-analyses could bring more clarity as well in the various dichotomies that can be found in the literature (e.g., do family firms pay out more or less dividends?).

This heterogeneous nature could be captured by taking into account the different goals, governance structures and resources they have (Chua et al., 2012; Chrisman & Patel, 2012; Chrisman et al., 2013). As these three drivers are considered to be the sources of differences in behavior among family firms as well as between family and nonfamily firms (De Massis et al.,

2014; Chrisman & Holt, 2016), they provide an excellent basis to distinguish between different types of family firms to investigate financing decisions in the remainder of this article.

Goal-related sources of heterogeneity that might broaden our insight into the financing decisions of family firms are, for example, the importance family owners place on SEW goals. As indicated above, researchers have started to rely on the SEW premise in order to explain financing behavior of family firms. Yet, none of these studies have directly measured SEW, which, essentially makes it hard to indicate what exactly drives family firm financing behavior. In this sense, the socioemotional wealth importance scale (SEWi), recently developed by Debicki et al. (2016) could be an interesting measure. Future research might use this scale to test how the importance of SEW influences financing behavior of family firms in comparison to nonfamily firms and how variations in the importance attached to SEW leads to heterogeneous financing decisions among family firms. As an example, it would be interesting to investigate whether the use of collateral is influenced by the family owners' risk tolerance and willingness to give up control. Additionally, although researchers generally only focus on SEW loss aversion in financial decision making (risk of losing control, financial risk aversion), we encourage future research that investigates the impact of potential SEW gains on financing decisions as well. After all, family firms may prioritize financial goals when the socioemotional gains of these goals are perceived as outweighing socioemotional costs. Thus, family firms may sometimes choose not to pursue SEW goals when the second order, negative socioemotional effects (i.e. the socioemotional costs) are expected to be too large (Martin & Gomez-Mejia, 2016).

Governance-related sources of heterogeneity arise from the family's involvement in ownership and management and can also lead to a wide variety of outcomes (Chua et al., 2012). Next to investigating the difference in importance placed on socioemotional concerns, the discretion that family members have in pursuing those concerns are important to take into

account (Chrisman & Holt, 2016). Since capital structure decisions are normally influenced or taken by the board of directors, the role and quality of this board are likely to affect financing decisions in family firms. Future research could therefore study the effect of board characteristics on the amount of debt financing that is applied for; and the process through which financing decisions are taken within the board and/or the management of the company. In contrast to nonfamily firms, the sustainability of family firms depends not only on the success of the firm, but also on the functionality of the family (Stafford et al., 1999). Thus, as the business family also needs to be governed, specific family governance mechanisms might be installed in the firm. Through these family governance mechanisms, family members can, for example, be informed about interesting investment opportunities, thereby raising the families' awareness of the negative second order effects that are associated with SEW goals (Martin & Gomez-Mejia, 2016). An interesting avenue for future research might therefore be to investigate whether family governance influences the willingness to, for example, take on external equity or extra bank financing (demand-side) or to adapt dividend payouts. In addition, both corporate and family governance mechanisms implemented within the family business might be taken into account by external investors or loan officers. More specifically, having a formalized board of directors, and/or well-functioning family governance practices might be a sign of professionalization to capital suppliers. Future research could investigate whether this higher professionalization degree indeed influences the ability to obtain external financing (supplyside).

Family firm goals are also likely to change when the firm moves from one generation to another, and the financing challenge is likely to become even bigger over generations (Coleman & Carsky, 1999). Future research is needed to provide us with further insight *into the extent to which financing decisions in family firms are time-varying and depending on the family and firm's life stage*. For example, factors worth investigating concern: the changing

goal orientation and risk behavior of founders versus successors, the relationship and conflicts between different generations of family members, the changing ownership and management structure pre- versus post-succession, the type of succession, the source of transition funding, etc. The role of family offices in intergenerational wealth creation and preservation also forms an interesting avenue for future research (see Zellweger & Kammerlander, 2015, for a profound theoretical overview on this topic).

Apart from investigating the importance family members place on socioemotional wealth and other concerns, and their ability to pursue those concerns, also the family firm's capabilities to achieve these goals are important aspects to consider (Chrisman & Holt, 2016). Examples of **resource-related sources of heterogeneity** that could be taken into account when examining financing decisions in family firms are, for example: the availability of family-based human assets (Verbeke and Kano, 2012), the ability to professionalize the firm (Chua et al., 2003), or the presence of venture capital, which can influence the resources available to the firm both in quantity and quality. Therefore, future research could investigate how these resource-related aspects influence the availability of external financing (supply) as well as the willingness (demand) to attract debt or equity financing. Another interesting research direction related to the human resources available to the family firm, concerns the impact of gender on financing decisions in family firms. Although women's access to, and use of, debt (e.g., Coleman, 2004; Francis et al., 2013; Constantinidis et al., 2006), angel capital (Becker-Blease & Sohl, 2007), and bootstrap financing (Neeley & Van Auken, 2010) has been explored in finance and entrepreneurship journals, none of these studies has considered the family firm or family CEO contingency. Yet, the impact of having a female CEO on a firm's financing choices might be different for family firms than for nonfamily firms and might also differ within the group of family firms. Additionally, woman entrepreneurship studies have emphasized that afemale business owners tend to balance economic goals with noneconomic goals more often than their male counterparts (Hechavarria et al., 2012; Jennings & Brush, 2013; Sullivan & Meek, 2012). Thus, future research could investigate whether female and male family business managers tend to differ with respect to financing decisions by using the socioemotional wealth perspective. A similar ongoing debate worth investigating concerns the impact of visible minorities in the board or management team on a family firms' financing choices (e.g., Coleman 2004; Cavalluzzo & Cavalluzzo, 1998).

Firm size can also lead to heterogeneity among family firms, as it might explain the goals, governance and resources of family firms (Chua et al., 2012). As indicated by the literature review, most of the studies are oriented towards large public firms even though, in reality, small private firms are the norm. The findings resulting from samples of large listed family businesses cannot automatically be transferred to privately-owned companies that usually are of a much smaller size, and thus more explicit evidence is required on this size effect. For example, many small family firms will be confronted with financial illiteracy (Koropp et al., 2013), which could be addressed partially through the financial advice provided by bankers or accountants. However, the literature is quite silent on the financial knowledge and competencies of family owners and their reliance on financial advice. Also, firm age could be an important factor in explaining financing decisions, as relationship lending could play a significant role in getting bank financing for companies with a longer history. However, little knowledge exists on this topic, thus warranting further research on, for example, how the family's history, generation and legacy influences this relationship. We recognize, however, that this presents "both an opportunity and a challenge to future research, as access to data from a large sample of these [privately-held] firms is severely limited" (Gómez-Mejía, Larraza-Kintana & Makri, 2003, p 236).

### Heterogeneity Across Countries

The majority of empirical articles in our review are single-country studies. This is somewhat surprising, given that several researchers have pointed to the large differences that occur between countries regarding their level of investor and creditor protection, their level of development of financial markets, the degree to which the capital markets are bank-centered, their culture, and their legal framework (civil versus common-law) (Driffield et al., 2007; King & Santor, 2008; Lappainen & Niskanen, 2013; Santos et al., 2014). For example, several countries have introduced rules to correcting the incentive to take on excessive debt, such as limiting the deductibility of interest costs (France, Germany, Hungary, Spain, Italy) or extending the deductibility to include the cost of equity financing (Belgium, Italy, Portugal) (European Commission, 2015b). These incentives might significantly influence decisions on capital structure and dividend payout. More investigation into these *country-level factors, and how they can be differentiated from firm-level effects, on family firm financing behavior,* are thus warranted. Performing these multi-country studies might also clarify some of the inconsistent results on family business financing found in extant studies (see, for example the multi-country study of Pindado et al., 2012 on dividend smoothing).

In addition, longitudinal approaches could allow for *capturing the consequences for family business financing behavior that result from certain policy shifts due to taxation* (e.g., the changes in deductibility of interest costs, as discussed above), *banking regulation* (e.g., the implementation of Basel III) *or financial-economic shocks*. More specifically, taxation rules might discourage family firms to take on debt or pay out dividends in some countries, whereas they will not in other countries. So as to be able to compare studies, and to find explanations for contrasting results, we urge researchers to discuss the taxation rules applicable in their sample country, and, in case of a multi-country study, to thoroughly review the differences in taxation rules.

Finally, future research could examine how a major crisis such as the global financial crisis that began in 2007 has affected financing decisions in family firms. After all, periods of economic downturn could strongly influence financing decisions in family businesses given the reduced availability of capital and other sources of financing. Apart from a number of articles in this direction, more efforts are needed to significantly broaden our knowledge on how financial crises impact family firm financing decisions (Amann & Jaussaud, 2012; Boubakri et al., 2010: Pindado et al., 2012). Possible research questions are abundant. For example: the effect of a financial crisis on voluntary delistings, the use of private equity, the commitment to pay dividends, and so on. Again, we especially encourage researchers to take into account the heterogeneity of family firms when examining the impact of economic shocks or crises.

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Insert Table 2 Here

#### **CONCLUSION**

Motivated by the growing attention to family firms in general, and their financing decisions in particular, this review brings together the two highly-relevant research fields of family business and finance. As the knowledge and contributions on financing decisions in family firms are quite dispersed, we develop a state of the art on family business financing literature and present a model to guide future research by identifying gaps across the theoretical perspectives, the demand versus supply side of financing, and across contexts. More specifically, we discuss the arguments underlying traditional theories and elaborate on their applicability to study financing decisions in family businesses. We also present future research opportunities and challenges across the context-specific elements such as family business heterogeneity and country-specific factors. We hope that our review provides finance scholars

with fruitful research ideas which eventually will contribute to advance our understanding of family firm financing behavior in theory and practice.

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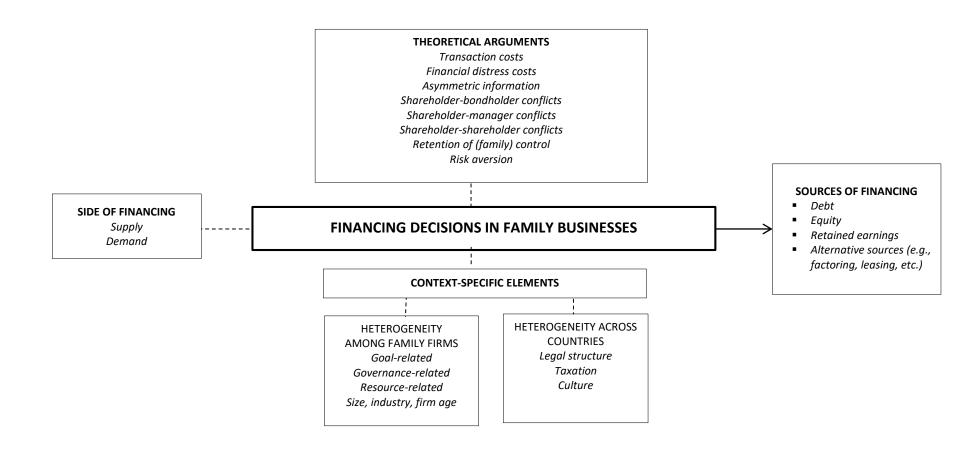
## **TABLES & FIGURES**

**Table 1: Methodological parameters** 

Data source		Sample size		Temporal		Analytical appr	roach	Public	versus	FB de	finition	FB/N	IFB	versus
				dimension				private				withi	in FB	
Databases	98	< 100	19	Cross-	57	Regression	81	Public	68	Yes	89	FB v	ersus	79
	(73%)		(16%)	sectional	(48%)		(60%)	firms	(53%)		(70%)	NFB		(65%)
Mailed/delivered survey	21	100 - 400	44	Longitudinal	62	Logit/probit/	29	Private	36	No	38	Withi	n FB	33
	(16%)		(38%)		(52%)	Tobit	(21%)	firms	(28%)		(30%)			(27%)
Interviews	4	400 - 1000	25			Theoretical	4	Both	7			Both		10
	(3%)		(21%)				(3%)		(5%)					(8%)
Case studies	5	> 1000	29			Descriptive	8	Not	17					
	(4%)		(25%)			statistics	(6%)	specified	(13%)					
No data	7					Qualitative	7							
	(5%)						(5%)							
						SEM	2							
							(1%)							
						CFA	1							
							(1%)							
						Matched pairs	2							
							(1%)							
						Difference-in-	2							
						differences	(1%)							

Note. As some papers use multiple datasources or analytical approaches, theories, ... the number of papers in this table does not add up to the total sample size of 131

Figure 1: Framework for organizing research on financing decisions in family businesses



**Table 2.** Potential Future Research Questions on Financing Decisions within Family Firms

Gaps	Demand/ Supply side	Source of financing	Possible Research Questions					
Theoretical	Both	Various	How do behavioral arguments for explaining financing behavior (such as SEW or stewardship theory) relate to other and to the dominant agency perspective?; How are non-economic considerations such as family business gand risk preferences related to capital structure decisions?; How could the socioemotional wealth perspective exour view on the demand side of financing?; How could alternative forms of financing such as leasing, crowdfund mini bonds, state-subsidize or subordinated loans and intermingling between firm and household finance incorporated into the traditional finance theories? How does the importance of SEW influence financing behavior family firms in comparison to non-family firms?					
Heterogeneity Demand Various across family firms		Various	Do variations in the importance attached to SEW lead to heterogeneous financing decisions among family firms?; What is the impact of potential SEW gains on financing decisions?; Do female and male family business managers tend to differ with respect to financing decisions?; What is the impact of visible minorities in the board or management team on a family firm's financing choices?; What is the impact of the financial knowledge and competencies of family owners and their reliance on financial advice on the financing decisions that are being taken?; To what extent are financing decisions in family firms time-varying and depending on the family and the firm's life stage?					
	Demand	Debt	What is the effect of board characteristics on the amount of debt financing that is applied for?; How does the process develop through which financing decisions are taken within the board and/or the management of the company; What is the impact of family governance on the willingness to take on extra bank financing?					
	Demand	External equity	What is the impact of family governance on the willingness to take on external equity?					
	Demand	Retained earnings	What is the impact of family governance on the willingness to adapt dividend payouts?					
	Supply	Debt, external equity	Does the degree to which a family business is professionalized influence the access to external financing?; How does the presence of venture capital influence access to bank debt? Are SEW aspects in family firms considered either as a risk-enhancing or a risk-reducing motive by capital suppliers?					
	Supply	Debt	What is the impact of relationship lending on getting bank financing for family businesses? How is relationship lending influenced by generation?					
Heterogeneity across countries	Demand	Various	What are the consequences for family business financing behavior that result from certain policy shifts due to taxation?					
	Both	Various	How can country-level factors be differentiated from firm-level effects on family firm financing behavior?; How has the global financial crisis that began in 2007 affected the demand and supply of finance to family firms?					

## Appendix A: Distribution of articles by journal

Journal	2016 Impact Factor	N	%	Journal	2016 Impact Factor	N	%
Family Business Review	4,229	17	12,98%	Economics of Transition	0,479	1	0,76%
Small Business Economics	2,421	8	6,11%	Emerging Markets Finance & Trade	0,826	1	0,76%
Journal of Banking & Finance	1,776	8	6,11%	European Financial Management	1,236	1	0,76%
Journal of Family Business Strategy	2,375	6	4,58%	Finance	N/A	1	0,76%
Journal of Small Business Management	2,876	6	4,58%	Industrial & Corporate Change	1,777	1	0,76%
Journal of Business Venturing	5,774	5	3,82%	International Review of Financial	1,457	1	0,76%
Corporate Governance: An International Review	3,571	5	3,82%	Analysis International Review of Law & Economics	0,57	1	0,76%
Journal of Financial Economics	4,505	4	3,05%	Japan & the World Economy	0,489	1	0,76%
Journal of Business Finance &	1,276	4	3,05%	Journal of Business	1,133	1	0,76%
Accounting Entrepreneurship Theory and Practice	4,916	3	2,29%	Journal of Business & Retail Management Research	N/A	1	0,76%
Asia Pacific Journal of	2,024	2	1,53%	Journal of Business Ethics	2,354	1	0,76%
Management Business History	0,83	2	1,53%	Journal of Business Research	3,354	1	0,76%
Journal of Management &				Journal of Enterprising Culture	N/A	1	0,76%
Governance	N/A	2	1,53%	Journal of Financial & Quantitative	1,673	1	0,76%
Journal of Private Equity Journal of Small Business &	N/A N/A	2 2	1,53% 1,53%	Analysis Journal of Financial Services Research	1,13	1	0,76%
Entrepreneurship			•	Journal of Financial Counseling &	N/A	1	0,76%
Journal of Management Studies	3,962	2	1,53%	Planning			
Pacific-Basin Finance Journal	1,754	2	1,53%	Journal of General Management	N/A	1	0,76%
Review of Financial Studies	3,689	2	1,53%	Journal of International Financial Markets, Institutions & Money	1,379	1	0,76%
Strategic Management Journal	4,461	2	1,53%	Journal of	5,869	1	0,76%
The Journal of Risk Finance	N/A	2	1,53%	International Business Studies Journal of Law & Economics	0,932	1	0,76%
Journal of Corporate Finance	1,579	2	1,53%	Journal of Multinational Financial			
Academy of Management Journal	7,417	1	0,76%	Management	N/A	1	0,76%
American Journal of Small Business	N/A	1	0,76%	Journal of the Japanese & International Economies	0,542	1	0,76%
Annals of Finance	N/A	1	0,76%	Journal of World Business	3,758	1	0,76%
Annals of Financial Economics	N/A	1	0,76%	Management Decision	1,396	1	0,76%
Asia Pacific Business Review	1	1	0,76%	Multinational Business Review	N/A	1	0,76%
Asian Academy of Management Journal of	N/A	1	0,76%	South African Journal of Business Management	0,246	1	0,76%
Accounting & Finance	27/4		0.760/	Strategic Change	N/A	1	0,76%
Brazilian Business Review British Accounting Review	N/A 2,135	1	0,76% 0,76%	The international journal of business in society	N/A	1	0,76%
Business Ethics Quarterly	1,703	1	0,76%	The Journal of Private Equity	N/A	1	0,76%
Business: Theory & Practice	N/A	1	0,76%	Universia Business Review	0,138	1	0,76%
Economics & Rural Development	N/A	1	0,76%	Venture Capital	N/A	1	0,76%
Economics & Kurui Developmeni Economics Letters	0,558	1	0,76%	TOTAL		131	100%

Appendix B: Overview of extant literature on financing decisions in family firms

Author(s)	Source of financing	Theoretical arguments	Demand or supply	FB/NFB or within FB	Country of research
Achleitner et al. (2010)	Equity	Retention of control	NA	Within FB	Germany
Adams et al. (2004)	Multiple	Aversion to risk	Demand	NA	NA
Ahlers et al. (2014)	Equity	NA	Supply	Within	NA
Al-Ajmi et al. (2009)	Debt	Asymmetric information between	NA	FB/NFB	Saudi Arabia
11 / Jim Cc al. (2005)	Dest	shareholders and bondholders, and between shareholders and managers		15,1115	Suddivitable
Alekneviciene (2012)	Alternative sources	NA	NA	FB/NFB	Lithuania
Amann and Jaussaud (2012)	Debt	Aversion to risk	Demand	FB/NFB	Japan
Amore et al. (2011)	Debt	Free cash flow hypothesis, retention of control, aversion to risk	Demand	Within FB	Italy
Anderson et al. (2003)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	US
Anderson and Reeb (2003)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	US
Astrachan and McConaughy (2001)	Equity	Signaling hypothesis	NA	FB/NFB	US
Attig et al. (2013)	Alternative sources	Asymmetric information between shareholders	Supply	Both	EU, Asia
Bagnoli et al. (2011)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	US
Batten and Hettihewa (1999)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	Sri Lanka
Benito-Hernández et al. (2014)	Debt	Retention of control	Demand	FB/NFB	Spain
Berghoff (2013)	Multiple	Transaction costs	NA	NA	Germany
Bhattacharya and Ravikumar (2001)	Multiple	NA	Supply	Within FB	NA
Bjuggren et al. (2012)	Debt	Asymmetric information between shareholders and bondholders, Free cash flow hypothesis, aversion to risk	Demand	FB/NFB	Sweden
Blanco-Mazagatos et al. (2007)	Multiple	Free cash flow hypothesis, retention of control, aversion to risk	Demand	FB/NFB	Spain
Bopaiah (1998)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	US
Boubakri and Ghouma (2010)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	EU, Asia
Boubakri et al. (2010)	Equity	Asymmetric information between shareholders	Supply	FB/NFB	Asia
Burgstaller and Wagner (2015)	Debt	Retention of control, aversion to risk	Demand	FB/NFB	Austria
Caprio and Croci (2008)	Equity	Asymmetric information between shareholders, retention of control,	Supply	FB/NFB	Italy
Carney and Gedajlovic (2002)	Retained earnings	Aversion to risk	Demand	FB/NFB	Hong Kong
Chaganti and Damanpour (1991)	Multiple	NA	Demand	FB/NFB	US
Chan et al. (2012)	Multiple	NA	Supply	FB/NFB	China
Chen et al. (2005)	Retained	Asymmetric information between	Demand	FB/NFB	Hong Kong
	earnings	shareholders, retention of control,			
Chen et al. (2016)	Debt	Asymmetric information beween lenders and borrowers	Supply	FB/NFB	Multiple
Chua et al. (2011)	Debt	Asymmetric information between shareholders and bondholders,	Supply	Both	US
Cirillo at al. (2015)	Equity	social capital	Supply	Mithin CD	Italy
Cirillo et al. (2015) Coleman and Carsky	Equity Debt	Stewardship NA	Supply Demand	Within FB FB/NFB	Italy US
(1999) Croci et al. (2011)	Multiple	Asymmetric information between shareholders and bondholders, retention of control	Both	FB/NFB	EU

Dailey et al. (1977)	Debt	Asymmetric information between shareholders and bondholders	NA	Within FB	US
Dawson (2011)	Equity	Asymmetric information between shareholders	Supply	NA	Italy
DeAngelo and	Retained earnings	Asymmetric information between shareholders	Demand	Within FB	US
DeAngelo (2000)	•				
Dejung (2013)	Debt	NA	Demand	NA	Switzerland
Desbrières and Schatt	Equity	NA	NA	FB/NFB	France
(2002)					
DiGiuli et al. (2011)	Alternative sources	NA	Demand	Within FB	Italy
Ding and	Equity	Asymmetric information between	Supply	FB/NFB	Taiwan
Pukthuanthong-Le (2009)	_qu.v,	shareholders	34pp.,	. 2, 2	
Dreux (1990)	Multiple	NA	Both	NA	NA
	•				
Driffield et al. (2007)	Debt	Asymmetric information between	Demand	Both	Asia
		shareholders, and between			
		· · · · · · · · · · · · · · · · · · ·			
		shareholders and managers,			
		aversion to risk			
Flatharra at at (204.4)	Na litele		D	ED /NED	1
Ebihara et al. (2014)	Multiple	Asymmetric information between	Demand	FB/NFB	Japan
		shareholders, retention of control			
Ehrhardt and Nowak	Equity	NA	NA	Within FB	Germany
	Equity	IVA	INA	WILLIIIII	Germany
(2003)					
El-Chaarani (2013)	Debt	Retention of control, aversion to	Demand	Within FB	France, Libanon
Er Chadram (2015)	DCDI		Demana	Withinia	Trance, Libarion
		risk			
Faccio and Parsley	Debt	NA	Demand	FB/NFB	Multiple
(2009)				•	
, ,					
Fernando et al. (2014)	Equity	Asymmetric information between	Supply	FB/NFB	US
		shareholders			
F:+4 -+ -1 (2012)	Dalat		Damand	ED /NED	C!
Fitó et al. (2013)	Debt	Aversion to risk	Demand	FB/NFB	Spain
Gallo and Vilaseca	Multiple	Aversion to risk, financial distress	Both	Within FB	Spain
(1996)		costs			
• •	F		A1.A	D - III-	<b>-</b>
Ginglinger and Hamon	Equity	Asymmetric information between	NA	Both	France
(2012)		shareholders, aversion to risk			
González et al. (2013)	Debt	Asymmetric information between	Both	FB/NFB	Colombia
		•		•	
		shareholders and bondholders, free			
		cash flow hypothesis, retention of			
		control, aversion to risk			
Consider at al. (2014)	Datained		Demand	ED /NED	Colombia
González et al. (2014)	Retained	Asymmetric information between	Demand	FB/NFB	Colombia
	earnings	shareholders			
Gugler (2003)	Retained	Asymmetric information between	Demand	FB/NFB	Austria
Gugici (2003)		•	Demana	1 D/ IVI D	Austria
	earnings	shareholders and managers			
Hakim et al. (2012)	Equity	Asymmetric information between	Supply	FB/NFB	Multiple
, ,	• •	shareholders		•	•
Hauser and Lauterbach	Equity	Retention of control	NA	FB/NFB	Israel
(2004)					
Haynes et al. (1999)	Debt	NA	Demand	FB/NFB	US
• • •				•	
He et al. (2012)	Retained	Asymmetric information between	Demand	FB/NFB	Hong Kong
	earnings	shareholders, retention of control			
He et al. (2013)	Retained	NA	Demand	FB/NFB	Hong Kong
110 00 01. (2013)		14/3	Demand	י און ועו	THE ROLL
	earnings				
Hearn (2011)	Equity	Asymmetric information between	Supply	Both	Africa
	• •	shareholders			
11 (2014)	F		Const	ED /NED	A C
Hearn (2014)	Equity	Transaction costs	Supply	FB/NFB	Africa
How et al. (2008)					
	Equity	Asymmetric information between	Demand	FB/NFB	Hong Kong
	Equity	•	Demand	FB/NFB	Hong Kong
11		shareholders			0 0
Huang et al. (2012)	Retained	shareholders Asymmetric information between	Demand Demand	FB/NFB Within FB	Taiwan
Huang et al. (2012)		shareholders			0 0
	Retained earnings	shareholders Asymmetric information between shareholders, retention of control	Demand	Within FB	Taiwan
Huang et al. (2012)  Jain and Shao (2015)	Retained	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between			0 0
	Retained earnings	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between	Demand	Within FB	Taiwan
	Retained earnings	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between	Demand	Within FB	Taiwan
	Retained earnings	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and	Demand	Within FB	Taiwan
	Retained earnings	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and between shareholders and	Demand	Within FB	Taiwan
	Retained earnings	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and	Demand	Within FB	Taiwan
	Retained earnings	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and between shareholders and bondholders, risk aversion,	Demand	Within FB	Taiwan
	Retained earnings	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and between shareholders and bondholders, risk aversion, retention of control, protection of	Demand	Within FB	Taiwan
Jain and Shao (2015)	Retained earnings Multiple	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and between shareholders and bondholders, risk aversion, retention of control, protection of reputation	Demand Both	Within FB Both	Taiwan US
	Retained earnings	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and between shareholders and bondholders, risk aversion, retention of control, protection of	Demand	Within FB	Taiwan
Jain and Shao (2015)	Retained earnings Multiple	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and between shareholders and bondholders, risk aversion, retention of control, protection of reputation Retention of control, asymmetric	Demand Both	Within FB Both	Taiwan US
Jain and Shao (2015)	Retained earnings Multiple	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and between shareholders and bondholders, risk aversion, retention of control, protection of reputation Retention of control, asymmetric information between shareholders	Demand Both	Within FB Both	Taiwan US
Jain and Shao (2015)  Keasey et al. (2015)	Retained earnings Multiple	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and between shareholders and bondholders, risk aversion, retention of control, protection of reputation Retention of control, asymmetric information between shareholders and bondholders	Demand Both Both	Within FB Both Both	Taiwan US EU
Jain and Shao (2015)	Retained earnings Multiple	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and between shareholders and bondholders, risk aversion, retention of control, protection of reputation Retention of control, asymmetric information between shareholders	Demand Both	Within FB Both	Taiwan US
Jain and Shao (2015)  Keasey et al. (2015)	Retained earnings Multiple	shareholders Asymmetric information between shareholders, retention of control Asymmetric information between shareholders, between shareholders and managers, and between shareholders and bondholders, risk aversion, retention of control, protection of reputation Retention of control, asymmetric information between shareholders and bondholders	Demand Both Both	Within FB Both Both	Taiwan US EU

King and Santor (2008)	Debt	Asymmetric information between shareholders and bondholders, aversion to risk	Demand	Both	Canada
Koropp, Grichnik and Gygax (2013)	Debt	Retention of control, aversion to risk, debt use intention	Demand	Within FB	Germany
Koropp, Grichnik and Kellermanns (2013)	Debt	Retention of control	Demand	Within FB	Germany
Koropp et al. (2014)	Multiple	Retention of control	Demand	Within FB	Germany
	•				•
Kusnadi (2011)	Alternative	Asymmetric information between	Demand	FB/NFB	Singapore,
	sources	shareholders and managers			Malaysia
Lace et al. (2013)	Retained	NA	Demand	FB/NFB	EU
	earnings			. = 7 =	
Landry et al. (2013)	Multiple	Retention of control, aversion to risk	Demand	Both	Canada
Lannalainan and	Multiple		Doth	ED /NED	Finland
Lappalainen and Niskanen (2013)	Multiple	Asymmetric information between shareholders and bondholders, retention of control	Both	FB/NFB	riillallu
Leitterstorf and Rau	Equity		Domand	ED /NED	Cormany
	Equity	Retention of control, protection of	Demand	FB/NFB	Germany
(2014)		reputation			
Lin and Chuang (2011)	Equity	Asymmetric information between	Supply	FB/NFB	Taiwan
		shareholders			
López-Gracia and	Debt	Financial distress costs	Both	FB/NFB	Spain
•	DEDI	i illaliciai disti ess costs	DOTT	I D/ IVI D	Spain
Sánchez-Andújar					
(2007)					
Mahérault (2004)	Equity	Retention of control	Supply	Within FB	France
Marti et al. (2013)	Equity	Asymmetric information between	Both	FB/NFB	Spain
(2020)	-90.07	shareholders	201	. 5, 5	opa
Marilian and Comm	F 10		D	ED /NED	F
Martinez and Serve	Equity	Aversion to risk	Demand	FB/NFB	France
(2011)					
Masulis et al. (2011)	Retained	Asymmetric information between	Both	FB/NFB	Multiple
	earnings	shareholders			
Matias Gama &	Debt	Asymmetric information between	Demand	FB/NFB	Portugal
	DEDI	•	Demand	I D/ IVI D	Tortugar
Manuel Mendes		shareholders, retention of control,			
Galvão (2012)		aversion to risk			
Maula et al. (2005)	Equity	NA	Supply	FB/NFB	Finland
Mazzola and Marchisio (2002)	Equity	NA	NA	FB/NFB	Italy
(2002)					•
(2002) McConaughy (1999)	Multiple	NA	NA	Both	NA
(2002) McConaughy (1999) McConaughy, et al. (2001)	Multiple Debt	NA Aversion to risk	NA Demand	Both FB/NFB	NA US
(2002) McConaughy (1999) McConaughy, et al.	Multiple Debt Retained	NA Aversion to risk Asymmetric information between	NA	Both	NA
(2002) McConaughy (1999) McConaughy, et al. (2001)	Multiple Debt	NA Aversion to risk	NA Demand	Both FB/NFB	NA US
(2002) McConaughy (1999) McConaughy, et al. (2001)	Multiple Debt Retained	NA Aversion to risk Asymmetric information between	NA Demand	Both FB/NFB	NA US
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and	Multiple Debt Retained earnings	NA Aversion to risk Asymmetric information between shareholders	NA Demand Demand	Both FB/NFB Within FB	NA US Belgium
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999)	Multiple Debt Retained earnings Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk	NA Demand Demand Demand	Both FB/NFB Within FB FB/NFB	NA US Belgium US
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and	Multiple Debt Retained earnings	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to	NA Demand Demand	Both FB/NFB Within FB	NA US Belgium
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010)	Multiple Debt Retained earnings Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk	NA Demand Demand Demand Both	Both FB/NFB Within FB FB/NFB Within FB	NA US Belgium US Belgium
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999)	Multiple Debt Retained earnings Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to	NA Demand Demand Demand	Both FB/NFB Within FB FB/NFB	NA US Belgium US
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012)	Multiple Debt  Retained earnings Debt  Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk	NA Demand Demand Demand Both Demand	Both FB/NFB Within FB FB/NFB Within FB Within FB	NA US Belgium US Belgium Belgium
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010)	Multiple Debt Retained earnings Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to	NA Demand Demand Demand Both	Both FB/NFB Within FB FB/NFB Within FB	NA US Belgium US Belgium
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012)	Multiple Debt  Retained earnings Debt  Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk	NA Demand Demand Demand Both Demand	Both FB/NFB Within FB FB/NFB Within FB Within FB	NA US Belgium US Belgium Belgium
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009)	Multiple Debt  Retained earnings Debt  Debt  Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders,	NA Demand Demand Both Demand Demand	Both FB/NFB Within FB FB/NFB Within FB Within FB	NA US Belgium US Belgium Belgium
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital	NA Demand  Demand  Both  Demand  Demand  Supply	Both FB/NFB Within FB Within FB Within FB NA Within FB	NA US Belgium US Belgium Belgium US
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015)  Mishra and McConaughy (1999) Molly et al. (2010)  Molly et al. (2012)  Muske et al. (2009) Napoli (2012)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Debt  Debt  Equity	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders,	NA Demand Demand Both Demand Demand	Both FB/NFB Within FB FB/NFB Within FB Within FB	NA US Belgium US Belgium Belgium
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital	NA Demand  Demand  Both  Demand  Demand  Supply	Both FB/NFB Within FB Within FB Within FB NA Within FB	NA US Belgium US Belgium Belgium US
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015)  Mishra and McConaughy (1999) Molly et al. (2010)  Molly et al. (2012)  Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Debt  Debt  Equity	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA	NA Demand  Demand  Both  Demand  Demand  Supply	Both FB/NFB Within FB Within FB Within FB NA Within FB	NA US Belgium US Belgium Belgium US Italy
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015)  Mishra and McConaughy (1999) Molly et al. (2010)  Molly et al. (2012)  Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Debt  Det  Det	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control	NA Demand  Demand  Both  Demand  Demand  Supply  Supply Supply Demand	Both FB/NFB Within FB Within FB Within FB NA Within FB FB/NFB FB/NFB Within FB	NA US Belgium US Belgium US Italy NA Asia UK
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015)  Mishra and McConaughy (1999) Molly et al. (2010)  Molly et al. (2012)  Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between	NA Demand  Demand  Both  Demand  Demand  Supply  Supply Supply	Both FB/NFB Within FB Within FB Within FB NA Within FB FB/NFB FB/NFB	NA US Belgium US Belgium Belgium US Italy
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015)  Mishra and McConaughy (1999) Molly et al. (2010)  Molly et al. (2012)  Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2012)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders	NA Demand  Demand  Both  Demand  Demand  Supply  Supply  Supply  Demand  Demand	Both FB/NFB Within FB Within FB Within FB NA Within FB NA Within FB FB/NFB Within FB FB/NFB Within FB	NA US Belgium US Belgium US Italy NA Asia UK EU
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015)  Mishra and McConaughy (1999) Molly et al. (2010)  Molly et al. (2012)  Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between	NA Demand  Demand  Both  Demand  Demand  Supply  Supply Supply Demand	Both FB/NFB Within FB Within FB Within FB NA Within FB FB/NFB FB/NFB Within FB	NA US Belgium US Belgium US Italy NA Asia UK
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015)  Mishra and McConaughy (1999) Molly et al. (2010)  Molly et al. (2012)  Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2012)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders	NA Demand  Demand  Both  Demand  Demand  Supply  Supply  Supply  Demand  Demand	Both FB/NFB Within FB Within FB Within FB NA Within FB NA Within FB FB/NFB Within FB FB/NFB Within FB	NA US Belgium US Belgium US Italy NA Asia UK EU
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2015)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Asymmetric information between shareholders and bondholders	NA Demand  Demand  Both  Demand  Demand  Supply  Supply Supply Demand Demand Supply	Both FB/NFB Within FB Within FB Within FB NA Within FB NA Within FB FB/NFB Within FB FB/NFB Within FB FB/NFB Within FB FB/NFB	NA US Belgium US Belgium Belgium US Italy NA Asia UK EU
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2012)  Pindado et al. (2015)  Poutziouris (2001)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Equity Multiple Retained Equity	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Asymmetric information between shareholders Retention of control	NA Demand  Demand  Both  Demand  Supply  Supply Supply Demand Demand  Supply Demand Demand	Both FB/NFB Within FB Within FB Within FB NA Within FB NA Within FB FB/NFB Within FB FB/NFB Both FB/NFB	NA US Belgium US Belgium Belgium US Italy NA Asia UK EU EU
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2015)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Retention of control Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between	NA Demand  Demand  Both  Demand  Demand  Supply  Supply Supply Demand Demand Supply	Both FB/NFB Within FB Within FB Within FB NA Within FB NA Within FB FB/NFB Within FB FB/NFB Within FB FB/NFB Within FB FB/NFB	NA US Belgium US Belgium Belgium US Italy NA Asia UK EU
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2012)  Pindado et al. (2015)  Poutziouris (2001)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Equity Multiple Retained Equity	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Retention of control Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between shareholders and bondholders,	NA Demand  Demand  Both  Demand  Supply  Supply Supply Demand Demand  Supply Demand Demand	Both FB/NFB Within FB Within FB Within FB NA Within FB NA Within FB FB/NFB Within FB FB/NFB Both FB/NFB	NA US Belgium US Belgium Belgium US Italy NA Asia UK EU EU
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2012)  Pindado et al. (2015)  Poutziouris (2001)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Equity Multiple Retained Equity	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Retention of control Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between	NA Demand  Demand  Both  Demand  Supply  Supply Supply Demand Demand  Supply Demand Demand	Both FB/NFB Within FB Within FB Within FB NA Within FB NA Within FB FB/NFB Within FB FB/NFB Both FB/NFB	NA US Belgium US Belgium Belgium US Italy NA Asia UK EU EU
(2002) McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2012)  Pindado et al. (2015)  Poutziouris (2001)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Equity Multiple Retained Equity	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Retention of control Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between shareholders and bondholders,	NA Demand  Demand  Both  Demand  Supply  Supply Supply Demand Demand  Supply Demand Demand	Both FB/NFB Within FB Within FB Within FB NA Within FB NA Within FB FB/NFB Within FB FB/NFB Both FB/NFB	NA US Belgium US Belgium Belgium US Italy NA Asia UK EU EU
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2012)  Pindado et al. (2015)  Poutziouris (2001) Poutziouris (2001)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Multiple Retained earnings Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Retention of control Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between shareholders and bondholders, retention of control Asymmetric information between	NA Demand  Demand  Both  Demand  Supply  Supply Supply Demand Demand  Supply Demand Demand	Both FB/NFB Within FB Within FB Within FB NA Within FB NA Within FB FB/NFB FB/NFB Within FB FB/NFB Both FB/NFB FB/NFB FB/NFB	NA US Belgium US Belgium Belgium US Italy  NA Asia UK EU UK UK UK
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2010) Pindado et al. (2012)  Pindado et al. (2012)  Poutziouris (2001) Poutziouris (2001) Psillaki and Eleftheriou (2015)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Multiple Companies Debt  Equity Multiple Companies Debt  Equity Multiple Companies Debt  Equity Multiple Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Retention of control Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between shareholders and bondholders, retention of control Asymmetric information between lenders and borrowers	NA Demand  Demand  Both  Demand  Supply  Supply Supply Demand Demand Supply  Supply	Both FB/NFB Within FB Within FB Within FB Within FB NA Within FB FB/NFB Within FB FB/NFB Both FB/NFB FB/NFB FB/NFB FB/NFB FB/NFB FB/NFB	NA US Belgium US Belgium Belgium US Italy  NA Asia UK EU UK UK UK France
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2012)  Pindado et al. (2015)  Poutziouris (2001) Poutziouris (2001)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Multiple Retained earnings Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Retention of control Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between shareholders and bondholders, retention of control Asymmetric information between lenders and borrowers Retention of control, aversion of	NA Demand  Demand  Both  Demand  Supply  Supply Supply Demand Demand  Supply Demand Demand	Both FB/NFB Within FB Within FB Within FB NA Within FB NA Within FB FB/NFB FB/NFB Within FB FB/NFB Both FB/NFB FB/NFB FB/NFB	NA US Belgium US Belgium Belgium US Italy NA Asia UK EU UK UK
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2012)  Pindado et al. (2015)  Poutziouris (2001) Poutziouris (2001) Psillaki and Eleftheriou (2015) Romano et al. (2001)	Multiple Debt  Retained earnings Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Multiple Multiple Multiple  Multiple  Debt  Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Retention of control Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between shareholders and bondholders, retention of control Asymmetric information between lenders and borrowers Retention of control, aversion of risk, protection of reputation	NA Demand  Demand  Both  Demand  Demand  Supply  Supply Supply Demand Demand  Supply  Supply Demand Demand  Supply  Both	Both FB/NFB Within FB Within FB Within FB Within FB NA Within FB FB/NFB FB/NFB Both FB/NFB FB/NFB FB/NFB FB/NFB Within FB FB/NFB Within FB FB/NFB Within FB FB/NFB Within FB FB/NFB	NA US Belgium US Belgium Belgium US Italy  NA Asia UK EU UK
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2010) Pindado et al. (2012)  Pindado et al. (2012)  Poutziouris (2001) Poutziouris (2001) Psillaki and Eleftheriou (2015)	Multiple Debt  Retained earnings Debt  Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Multiple Companies Debt  Equity Multiple Companies Debt  Equity Multiple Companies Debt  Equity Multiple Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between shareholders and bondholders, retention of control Asymmetric information between lenders and borrowers Retention of control, aversion of risk, protection of reputation Free cash flow hypothesis,	NA Demand  Demand  Both  Demand  Supply  Supply Supply Demand Demand Supply  Supply	Both FB/NFB Within FB Within FB Within FB Within FB NA Within FB FB/NFB Within FB FB/NFB Both FB/NFB FB/NFB FB/NFB FB/NFB FB/NFB FB/NFB	NA US Belgium US Belgium Belgium US Italy  NA Asia UK EU UK UK UK France
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2012)  Pindado et al. (2015)  Poutziouris (2001) Poutziouris (2001) Psillaki and Eleftheriou (2015) Romano et al. (2001)	Multiple Debt  Retained earnings Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Multiple Multiple Multiple  Multiple  Debt  Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Retention of control Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between shareholders and bondholders, retention of control Asymmetric information between lenders and borrowers Retention of control, aversion of risk, protection of reputation	NA Demand  Demand  Both  Demand  Demand  Supply  Supply Supply Demand Demand  Supply  Supply Demand Demand  Supply  Both	Both FB/NFB Within FB Within FB Within FB Within FB NA Within FB FB/NFB FB/NFB Both FB/NFB FB/NFB FB/NFB FB/NFB Within FB FB/NFB Within FB FB/NFB Within FB FB/NFB Within FB FB/NFB	NA US Belgium US Belgium Belgium US Italy  NA Asia UK EU UK
McConaughy (1999) McConaughy, et al. (2001) Michiels et al. (2015) Mishra and McConaughy (1999) Molly et al. (2010) Molly et al. (2012) Muske et al. (2009) Napoli (2012)  Nielsen (2008) Noordin et al. (2008) O'Regan et al. (2010) Pindado et al. (2012)  Pindado et al. (2015)  Poutziouris (2001) Poutziouris (2001) Psillaki and Eleftheriou (2015) Romano et al. (2001)	Multiple Debt  Retained earnings Debt  Debt  Debt  Equity Equity Multiple Retained earnings Debt  Equity Multiple Multiple Multiple  Multiple  Debt  Debt	NA Aversion to risk  Asymmetric information between shareholders Aversion to risk  Retention of control, aversion to risk Retention of control, aversion to risk NA Asymmetric information between shareholders and bondholders, social capital NA NA Retention of control Asymmetric information between shareholders Asymmetric information between shareholders Asymmetric information between shareholders and bondholders Retention of control Asymmetric information between shareholders and bondholders, retention of control Asymmetric information between lenders and borrowers Retention of control, aversion of risk, protection of reputation Free cash flow hypothesis,	NA Demand  Demand  Both  Demand  Demand  Supply  Supply Supply Demand Demand  Supply  Supply Demand Demand  Supply  Both	Both FB/NFB Within FB Within FB Within FB Within FB NA Within FB FB/NFB FB/NFB Both FB/NFB FB/NFB FB/NFB FB/NFB Within FB FB/NFB Within FB FB/NFB Within FB FB/NFB Within FB FB/NFB	NA US Belgium US Belgium Belgium US Italy  NA Asia UK EU UK

Schmid (2013)	Debt	Asymmetric information between shareholders and bondholders, and between shareholders and	Both	FB/NFB	EU, Asia
Scholes et al. (2007)	Equity	managers, free cash flow hypothesis, retention of control Asymmetric information between shareholders, and between shareholders and managers, game	Both	Within FB	EU
Scholes et al. (2009)	Equity	theory Asymmetric information between shareholders and managers	Both	Within FB	EU
Schulze et al. (2003)	Debt	Asymmetric information between shareholders, aversion to risk, loss aversion	Demand	Within FB	US
Segura and Formigoni (2014)	Debt	Retention of control, aversion to risk	Demand	FB/NFB	Brazil
Setia-Atmaja et al. (2009)	Retained earnings	Asymmetric information between shareholders, free cash flow hypothesis	Demand	FB/NFB	Australia
Shyu and Lee (2009)	Debt	Asymmetric information between shareholders, free cash flow hypothesis	Both	FB/NFB	Taiwan
Song and Wang (2013)	Debt	Asymmetric information between shareholders and bondholders	Supply	NA	China
Steijvers and Voordeckers (2009)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	US
Steijvers et al. (2010)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	US
Strebualev and Yang (2013)	Debt	Aversion to risk	Demand	FB/NFB	US
Tanaka (2014)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	Japan
Tappeiner et al. (2012)	Equity	Asymmetric information between shareholders, retention of control	Demand	Within FB	Germany
Tran and Santarelli (2014)	Multiple	Asymmetric information between shareholders, and between shareholders and bondholders, social capital	Supply	Within FB	Vietnam
Tran (2014)	Multiple	Asymmetric information between shareholders, and between shareholders and bondholders	Demand	FB/NFB	Germany
Upton and Petty (2000)	Equity	NA	Supply	Within FB	US
Vandemaele and Vancauteren (2015)	Retained earnings	Retention of control, aversion to risk	Demand	Within FB	Belgium
Viviani et al. (2008)	Equity	Asymmetric information between shareholders	Supply	FB/NFB	Italy
Voordeckers and Steijvers (2006)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	Belgium
Waisman (2013)	Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	US
Walker (2008)	Equity	Asymmetric information between shareholders	Supply	FB/NFB	Multiple
Wright et al. (2009)	Equity	Asymmetric information between shareholders	NA	NA	NA
Wu et al. (2007)	Equity	Asymmetric information between shareholders	Supply	FB/NFB	Canada
Wu et al. (2014) Yilmazer and Schrank (2006)	Multiple Debt	NA Transaction costs	Demand Demand	FB/NFB FB/NFB	Taiwan US
Yoshikawa and Rasheed (2010)	Retained	Asymmetric information between shareholders, retention of control	Demand	FB/NFB	Japan
Yen et al. (2015)	earnings Debt	Asymmetric information between shareholders and bondholders	Supply	FB/NFB	Taiwan
Yu and Zheng (2012) Zellweger and Kammerlander (2016)	Equity Multiple	Retention of control Family blockholder conflicts	Demand NA	FB/NFB NA	Hong Kong NA
Zhang et al. (2012)	Multiple	Retention of control	Demand	Within FB	China