

Do family businesses act as financial intermediaries?

Abstract

This study aims to gain a direct understanding of the financing decisions of family-controlled public companies, while accounting for their unique characteristics. It investigates whether there are significant differences in the financial decisions of family-owned businesses compared to non-family firms listed on the Warsaw Stock Exchange between 2012 and 2020. Using the system GMM estimator developed by Arellano-Bover and Blundell-Bond, the analysis examines how family ownership affects debt usage and capital structure decisions related to tax avoidance and profit shifting. Drawing on agency theory, stewardship theory, the concept of socioemotional wealth, and the resource-based view, we argue that family-owned businesses assess, acquire and utilise their resources differently from their non-family counterparts. The study identifies distinct debt determinants associated with corporate governance structures within business groups, ties to tax havens, and intra-group lending practices. The findings also reveal that family firms often function as financial intermediaries, benefiting from more favourable access to bank credit than non-family firms.

Keywords: capital structure, family companies, corporate finance, capital structure theories, social-emotional wealth theory

Introduction

This paper aims to gain a direct understanding of the financing decisions of family-controlled public companies, taking into account their unique characteristics. Numerous studies highlight the distinguishing features of family businesses in comparison to other types of enterprises. Family firms are considered atypical economic entities, characterised by the interaction of two interrelated components: family and business. This interplay gives rise to a unique set of characteristics that define family businesses. Unlike other shareholders, the family typically adopts a significantly longer investment horizon, viewing the company as a legacy asset to be preserved and passed down to future generations.

Owners of family firms typically prioritise the long-term value and stable development of the company over short-term profit maximisation. This long-term investment perspective, coupled with a focus on ensuring the sustainability of the enterprise, is often associated with a risk-averse mindset and prudent management practices within family businesses. Given these distinctive characteristics—and the dominant role that family enterprises play in the economies

of many countries—family firms have become a central focus of scholarly research (Cheng, 2014; Filipczak, 2018).

Financial decision-making and the determinants of capital structure remain central topics in economics and finance research, tracing back to the seminal work of Modigliani and Miller (1958) over six decades ago. Their theory posited that, in a perfect capital market, decisions regarding the debt-equity mix are irrelevant to firm value. However, subsequent studies which challenge the assumptions of perfect capital markets have demonstrated that financial decisions indeed affect firm performance and value (Michiels and Molly, 2017). Despite this progress, selecting appropriate sources of financing remains a significant challenge for managers, as poor choices can result in financial distress. To secure funding, companies can utilise a variety of strategies, with primary sources of financing including retained earnings, equity issuance, loans, and credit lines. However, family involvement in business management may lead to borrowing decisions that diverge significantly from those predicted by traditional capital structure theories. To test whether there are differences in the debt determinants of family and non-family companies, the Arellano–Bover/Blundell–Bond dynamic panel data estimator was applied using data from the ORBIS database, covering 684 companies over the period 2012 to 2020.

The remainder of this paper of this paper is as follows. Section 1 introduces the theoretical background. Section 2 provides a literature review of prior research and hypotheses. Next, Section 3 provides detailed sample characteristics, describes the research design, and presents the results. Finally, we conclude with a discussion and suggestions for future research.

1. Theoretical background

1.1. The feature of family business

There is no doubt that family businesses constitute an important element of the economy. Their specificity, resulting from combining the family and the business, provides them with certain

advantages over non-family businesses, but at the same time, creates many threats and difficulties that non-family businesses do not experience (Biel and Ślusarczyk, 2022), which means that the family businesses proceed in many aspects in a different way than non-family companies.

In their quest to understand the differences between family firms and non-family firms, researchers have employed a broad range of theoretical perspectives. Agency theory (Jensen and Meckling, 1976), stewardship theory, the familiness concept, and social-emotional wealth theory are most often identified in the literature as the theoretical concepts used to explain the unique behaviour of family businesses (Berrone et al., 2012).

Agency theory considers the relationships in which one “principal” – e.g., the owner – delegates work to another, the “agent”. The theory suggests that agents do not seek to maximise the utility of the superior but instead take an opportunistic stance and pursue only their interests (Madison et al., 2016). This gives rise to three main types of agency costs: costs associated with monitoring agents, costs associated with aligning the agent’s interests with those of the principal, and residual losses (Kallmuenzer, 2015). From the perspective of family businesses, the listed costs should be kept to a minimum due to the lack of separation of ownership and management (Kielan and Pełczewski, 2021). Some researchers highlight other aspects of agency conflicts in family businesses, particularly the issue of altruism (Schulze et al., 2003; Kołodziejczyk and Samuel-Idzikowska, 2018; Siebels and zu Knyphausen-Aufseß, 2012).

In contrast to agency theory, stewardship theory draws from sociology and psychology to offer an alternative view, in which organisational actors see greater long-term utility in other-focused, prosocial behaviour rather than in self-serving, short-term opportunistic behaviour (Hernandez, 2012). The pro-organisational behaviour, aimed at maximising organisational performance, will, in turn, benefit the principals (Corbetta and Salvato, 2004). According to Le Breton-Miller et al. (2011), the above relationship occurs in the context of stable relationships,

characterised by significant interdependence and interaction. So, the steward's attitude may, therefore, be particularly prevalent among family businesses where the manager is a family member (Miller and Le Breton-Miller, 2006; Prencipe et al., 2014).

1.2. Familiness concept

The third mainstream approach used to explain the unique behaviour of family businesses is the resource-based view (RBV) (Amato and Patuelli, 2023). RBV is arguably the leading framework employed to understand firm strategies (Reilly and Jones, 2017). According to this RBV theory, strategic resources and capabilities contribute to the uniqueness of firms. RBV points to the characteristics and potential of a firm's unique internal processes and assets (Irava and Moores, 2010). Family businesses, by their very nature, have a certain unique bundle of resources (referred to as familiness) due to the interplay between the family and the business (Habbershon and Williams, 1999). The theory emphasises the significance of family members' involvement in the firm or the entrepreneurial family's history, which is a unique and inimitable resource (Chrisman et al., 2005). Familiness affect both positively and negatively a company's human capital. Trust and a strong family bond, which characterise family firms, ensure better communication (Sirmon and Hitt, 2003; Leszczewska, 2016). However, targeting family members for employment could lead to hiring suboptimal employees (Dunn, 1995). Skilled managers may avoid family firms due to the exclusive nature of succession, limited potential for professional growth, and a lack of perceived professionalism (Sirmon and Hitt, 2003).

1.3. The concept of socioemotional wealth

Berrone et al. (2012) argue that socioemotional wealth (SEW) is the most important differentiator of the family firm as a unique entity and, as such, helps explain why family firms behave distinctively (Gómez-Mejía and Herrero, 2022). This approach integrates elements of

prospect theory, behavioural theory of the firm, and agency theory. By socioemotional wealth, researchers refer to the non-financial aspects of the firm that meet the family's affective needs, such as identity, the ability to exercise family influence, and the perpetuation of the family dynasty (Gómez-Mejía et al., 2007). In this perspective, the uniqueness of family businesses lies in their ability to have both non-financial and financial objectives. To avoid a loss of SEW, family-owned companies are willing to make suboptimal business decisions (Gottardo and Moisello, 2018).

The family's attitude toward risk remains significant in these types of decisions. Many authors have predicted that family firms are more risk-averse in making business decisions than non-family firms (e.g., Mishra and McConaughy, 1999). This observation is related to the poorly diversified portfolios of family members among owners. However, some empirical evidence suggests that undiversified family principals are willing to take business risks, even when the economic welfare of the family is at stake, regardless of the potential returns associated with these choices. To explain that paradox, the role of socioemotional gains or losses for the family when considering the relative risk of various strategic choices cannot be ignored. Decision-makers prefer to avoid a loss of SEW, even if this means accepting a higher risk (Gomez-Mejia et al., 2011).

The SEW perspective is also applicable in explaining the financial decisions of family businesses. Two points of view, both of which apply the logic of SEW theory, are likely to lie behind the effect of SEW on debt financing. On the one hand, family firms that have a greater desire to preserve shareholder equity (SEW) are prone to increasing debt levels in order to maintain control and family influence, thereby relinquishing the use of external equity and risking the loss of control over the firm (Poutziouris, 2011). On the other hand, if we compare debt with the possibility of financing through internal resources, SEW is likely to harm debt levels. Firms that attach greater importance to preserving SEW are expected to have lower debt

levels and to utilise retained earnings as a source of funding, thereby avoiding the financial risks associated with debt and creditor monitoring (Schmid, 2013). Therefore, it is of interest to analyse how family influence on the business affects a firm's financing decisions.

2. Literature review and hypothesis development

2.1. Definition of a family business

The importance of family business research is still accelerating, but there is no consensus in the literature on a unique definition of a family company. According to Donnelley (1964), a company is considered a family business when it has been closely identified with at least two generations of a family and when this link has had a mutual influence on the company's policy and the interests and objectives of the family. In the following years, an increase in interest in the subject of family entity functioning was observed, which was also associated with successive attempts to define the family business (Więcek-Janka, 2013). Harms (2014) employs a systematic approach to gain new insights into the relationship between family business definitions and their application under various conditions, such as legal frameworks, culture, or regional understandings of family.

2.2. Financial decisions in family companies - results of foreign studies

Anderson and Reeb (2003) aim to determine whether US family firms are more or less likely to use debt in their capital structure compared to non-family firms. Their results suggest that family ownership, whether or not it includes family CEOs, bears no significant relation to debt usage. Mishra and McConaughy (1999) demonstrated that US family-controlled firms are more averse to control risk than similar non-family-controlled firms and, therefore, use less debt. Higher levels of debt increase the likelihood of bankruptcy and the level of control risk.

Baek et al. (2016) emphasise that although family ownership has a positive effect on a firm's leverage, family control through the CEO position and equity performance moderate its impact.

An analysis of European family companies was conducted by Ampenberger et al. (2009). With a large sample of German firms, they showed that even in listed firms, the founding families continue to remain important shareholders and are often still involved in supervisory and management board activities. By considering three different components of family firms (ownership, supervisory and management board activities of the founding family), the authors found that - as predicted by theory - the level of leverage is the lowest if the founding family is both a large shareholder and present in the management board at a time. In general, they showed that family firms use less debt (measured by several definitions of leverage) than their non-family counterparts. Overall, their study suggests a strong, negative and causal relationship between family firm characteristics (especially family management) and the level of leverage. Using a sample of firms listed on the French stock market, Latrous and Trabelsi (2012) also showed that family firms use less debt than non-family firms. That is consistent with the hypothesis that family-controlled shareholders prefer less debt as a means to reduce firm risk. Furthermore, their analysis reveals that family firms with a family member as CEO tend to use more debt than those with outside CEOs.

Gottardo and Moisello (2018), using a dataset of Italian firms, showed that family control, as a key element of the SEW, shapes a firm's capital structure choices. The multiple presence of family members on the board and in executive positions has signalling value for creditors. Due to the strength of their relationships with financial institutions, they may enjoy better and more favourable financing conditions (Anderson et al., 2003). Overall, Gottardo and Moisello (2018) state that family firms are more leveraged than non-family companies, as family firms are willing to bear the financial risk associated with higher leverage because they are also well-equipped to handle this risk. Another work that provides empirical evidence of a

higher debt ratio for family businesses is that of Acedo-Ramírez (2017). The author notes that the leverage ratio of family businesses varies with the company's size and its life cycle.

Croci et al. (2011), analysing public companies from Western Europe, found that the potential agency conflict between family shareholders and public shareholders explains why family firms, especially those in which a founder holds an influential position, issue more debt.

Kałdoński (2016) found that family businesses have a greater tendency to avoid taxes than non-family companies, although they prefer less aggressive methods of tax avoidance. Moreover, family businesses use tax havens more willingly and on a larger scale than non-family businesses and relatively low levels of harm characterise the tax havens in which they operate. Analysing the consequences of tax avoidance on the financing of family companies, it was found that family businesses that avoid taxes are more likely to be financed with debt than their non-family counterparts.

Analysis of family companies in East Asian countries has also been undertaken. Haider et al. (2021), using data from Hong Kong, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, and Taiwan, showed a significant difference in leverage between family and non-family enterprises in most countries. Their results indicate that debt issuance is lower for family businesses where the owner is a chairman or board member. For companies in Taiwan and Malaysia, research has shown that family-owned companies tend to incur less debt (Shyu and Lee, 2009; Purag et al., 2016). In summary, the results of previous studies on capital structure in family businesses are inconclusive. Evidence has been found of both negative and positive effects of family ownership and family management on debt.

2.3. Financial decisions in family companies on the Polish market

Analysing 100 family businesses in Poland over the period from 1999 to 2000, Popczyk and Winnicka-Popczyk (2005) showed that this type of entity is not willing to incur debt

obligations and take such actions when there is no other financing option. This is due to the fear of potential debt repayment problems that could negatively impact the company and, consequently, the family's financial stability. Among the 456 family-owned companies in the tourism services sector, most of the companies analysed did not use foreign capital. In the remaining cases, the level of debt was very low (Kazmierska-Jóźwiak and Marszałek, 2012). Also, Socha (2015), who analysed the financial data of 24,000 small family businesses from 2008 to 2013, found that they are characterised by low levels of debt, which is usually short-term. Wieczorek and Wyzuj's (2015) study was conducted on 12 companies listed on the Warsaw Stock Exchange. The survey results did not support the hypothesis that family-owned companies have lower debt levels. However, the study's conclusion cannot be generalised due to the very small sample. The analysed companies had large investment needs, which may explain their indebtedness.

In conclusion, a gap has been identified in studies on the financial decisions of Polish public companies. The first studies focused on private companies and were often based on small samples. From the perspective of our empirical study, the work of Jewartowski and Kaldonski (2015) deserves attention - due to the research sample. The authors analysed the data of companies listed on the WSE and showed that family businesses are more indebted. It is worth mentioning, however, that this study is based only on a portion of listed companies and covers the period of the 2007-2009 financial crisis.

2.4. Hypothesis development

We expect that, unlike nonfamily-controlled firms, the external financing decisions of family-controlled firms are influenced by control incentives and information asymmetry considerations. Our research aims to gain a direct understanding of the financing decisions of family-controlled public companies, taking into account their unique characteristics.

The capital theories typically do not distinguish between family and non-family external financing choices. However, since a shareholder with large undiversified stakes typically controls family firms, the financing decisions in family firms are more likely to be influenced by the dominant shareholder's incentives than those of the diversified shareholders (Crocci et al., 2011). Therefore, the financing decisions of family and nonfamily-owned companies should not be expected to be identical. Based on the theoretical and empirical literature, we formulated the following hypothesis.

H1: *The debt of family companies is different from that of non-family companies.*

Determining the direction of the impact of family ownership on debt is a more complex issue, as the presented theories yield inconclusive findings. In light of the trade-off theory and agency theory, family-owned companies are expected to have lower levels of debt than non-family-owned companies, which contradicts the pecking order theory (Myers and Majluf, 1984; Myers, 1984). Trade-off theory posits the existence of financial distress and default costs associated with debt, which are typically higher for family-owned firms than for their non-family counterparts. This is because family business owners have non-diversified portfolios, making them more sensitive to the risk of asset loss. Higher debt can be associated with default, which results in a loss of SEW resources. On the other hand, agency costs in the case of family companies are minimised, so the need to use debt as a way to reduce the manager's disposable cash is low. Taking into account the above arguments, the following hypothesis was formulated.

H2: *Family ownership negatively affects the debt ratio (leverage).*

Factors used in the study of a company's capital structure include company size, profitability, liquidity, non-interest tax shield, growth opportunities, and asset structure (Czerwonka and Jaworski, 2017). In our study, we expand this list to include more specific factors that relate to business groups, shareholder structure, and ownership of subsidiaries and shareholders from tax havens.

Companies in business groups have the option of using intra-group financing. The additional source of financing through the internal capital market gives companies an advantage over stand-alone firms. In the context of the internal capital market, there is less information asymmetry, which reduces the cost of monitoring the borrower and, consequently, the cost of debt financing (Dewaelheyns and Van Hulle, 2010). In the event of financial difficulties, borrowers within a business group may benefit from deferred payments or liquidity support through mechanisms such as cash pooling. These arrangements can help avoid insolvency while preserving the reputation of both the group and the controlling shareholder. From the lender's perspective, intra-group financing offers the advantage of reducing reliance on external capital providers, particularly banks, which may impose monitoring on the controlling shareholder (Buchuk et al., 2014). The analysis also incorporated the issue of tax havens. According to Kałdoński (2016), family firms may experience different costs and benefits from tax avoidance practices than non-family firms. The findings of this study suggest that family-owned businesses are more inclined to utilise tax haven services and do so to a greater extent compared to their non-family counterparts. At the same time, it has been demonstrated that a higher intensity of tax avoidance is associated with higher debt levels in family businesses (Kałdoński, 2016). Due to the specific characteristics of family businesses, the role of debt determinants in family and non-family companies is expected to differ. Hence, we expect that:

H3: *There are differences in the debt determinants of family and non-family companies.*

3. Data and research design

3.1. Data

Our data comprises companies listed on the main market of the Warsaw Stock Exchange (WSE) for the period from 2012 to 2020. Financial and insurance firms were excluded from the sample. This resulted in a final sample of 684 companies. Firm-level financial data, shareholder

structure information, and details on business groups were obtained from the ORBIS database. Investment ratings were sourced from Stockwatch.pl.

We began by identifying the family firms within the sample. Following the approach found in the literature on the subject (Motylska-Kuźma, 2014; Jewartowski and Kałdoński, 2015), we defined a family business as an entity in which the manager holds at least 25% of the shares. This threshold represents a relative majority of votes, which grants control over ownership.

Table 1. Sample distribution by sector (NACE rev. 2)

Code	Sector	Total	Family business	Non-family business	Family business (%)	Non-family business (%)
A	Agriculture, forestry and fishing	10	0	10	0	100
B	Mining and quarrying	11	1	10	9	91
C	Manufacturing	223	56	167	25	75
D	Electricity, gas, steam and air conditioning supply	23	6	17	26	74
E	Water supply – sewerage, waste management and remediation activities	4	0	4	0	100
F	Construction	42	15	27	36	64
G	Wholesale and retail trade	101	22	79	22	78
H	Transportation and storage	13	1	12	8	92
I	Accommodation and food service activities	4	2	2	50	50
J	Information and communication	88	21	67	24	76
L	Real estate activities	31	5	26	16	84
M	Professional, scientific and technical activities	68	23	45	34	66
N	Administrative and support service activities	21	2	19	10	90
O	Public administration and defence, and compulsory social security	13	5	8	38	62
Q	Human health and social work activities	19	5	14	26	74
R	Arts, entertainment and recreation	2	0	2	0	100
S	Other service activities	11	2	9	18	82
Total		684	166	518	24	76

Source: Author's elaboration.

When analysing the research sample, it is also important to consider the sectoral distribution of family companies. As shown in Table 1, the highest number of family companies was identified in the manufacturing sector, followed by the wholesale and retail trade, information and communication, and construction. In contrast, no family firms were found in the mining and quarrying sector, the water supply – sewerage, waste management and remediation activities sector, or the accommodation and food services sector.

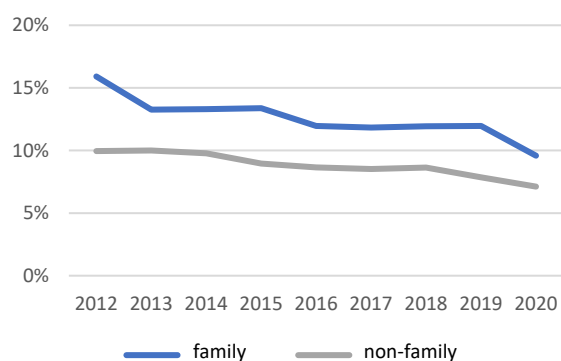
Additionally, the number of lenders among the family firms and their affiliation with the business group were analysed. The share of lenders among family-owned entities is relatively high. Most family companies that act as lenders have subsidiaries, which suggests their ability to create an internal capital market. Such markets are characterised by reduced information asymmetry, lower costs of debt financing, and lower risk, particularly due to liquidity management within the group through intra-group lending or cash pooling. Family companies that form business groups may also enhance their market share or diversify their operations and risk exposure.

The next stage of the analysis focused on identifying the direction of foreign expansion, i.e. the countries of origin of subsidiaries and shareholders of family businesses. Among family firms, 16% of subsidiaries are located abroad, while the remaining entities operate domestically. In contrast, non-family firms have a significantly higher proportion of foreign subsidiaries, at approximately 43%, which may suggest that family businesses are less internationally oriented. It was observed that family firms tend to expand primarily within Europe, with Germany being the most common destination. This pattern suggests a preference for culturally similar markets, which helps reduce information asymmetry and minimises the need to hire external specialists—such as analysts, translators, or non-family managers—who may be more familiar with specific markets (Filipeczak, 2018). This is followed by Asia (mostly in China) and the United States. Approximately 6% of all subsidiaries of family companies are located in tax havens. Regarding foreign shareholders in family businesses, most are based in European countries, particularly Cyprus and Luxembourg. This suggests that a substantial proportion of family business shareholders are based in tax havens.

3.2. Debt structure

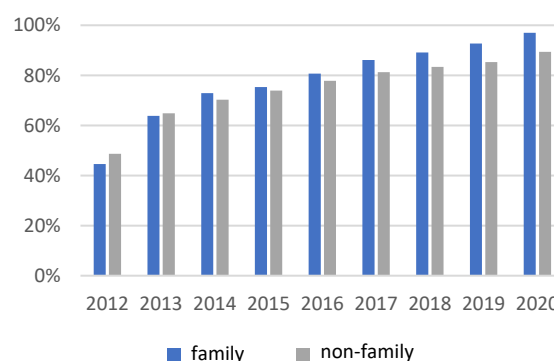
This subsection compares the debt structure of family and non-family companies.

Fig. 1. Median trade liabilities to assets ratio



Source: Author's elaboration.

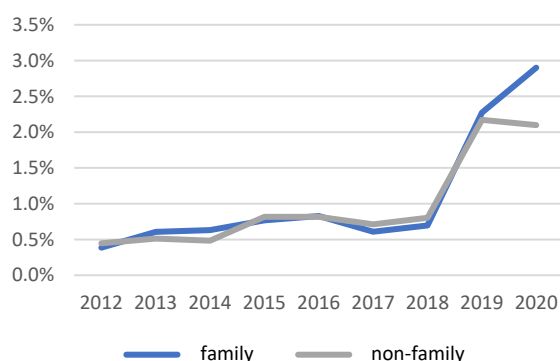
Fig. 2. Companies with trade liabilities (%)



Source: Author's elaboration.

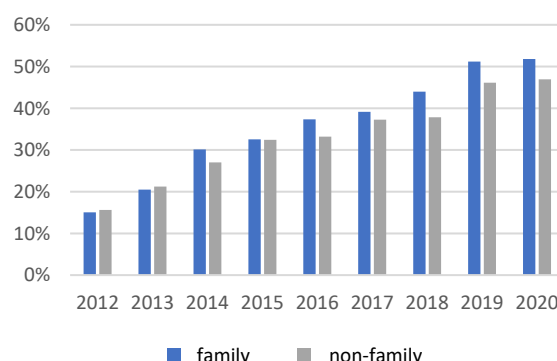
The median of trade liabilities to assets ratio over the entire period was higher for family companies, showing a downward trend from 16% in 2012 to 10% in 2020 (Fig. 1). It was observed that a higher percentage of family companies used trade credit, showing an increasing trend (Fig. 2). The opposite trend was noted for the median of the lease to assets ratio. The differences between family and non-family companies for this statistic were minimal (Fig. 3). The share of companies using leasing was higher among family businesses during the analysed period (Fig. 4).

Fig. 3. Median lease to asset ratio



Source: Author's elaboration.

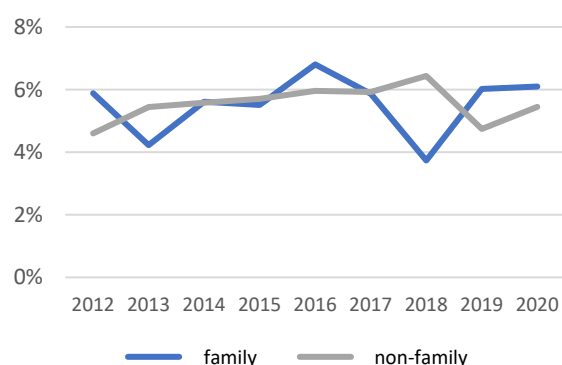
Fig. 4. Companies with lease (%)



Source: Author's elaboration.

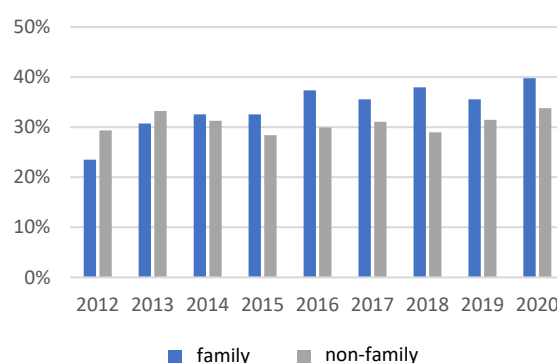
In 2012, 2014, 2016 and in the period 2019-2020, the median bank loan to assets ratio of family companies was higher than the median of non-family companies, while for other years, the relationship reversed (Fig. 5). The share of companies financing with bank loans was higher for family-owned companies between 2014 and 2020.

Fig. 5. Median bank loans to assets ratio



Source: Author's elaboration.

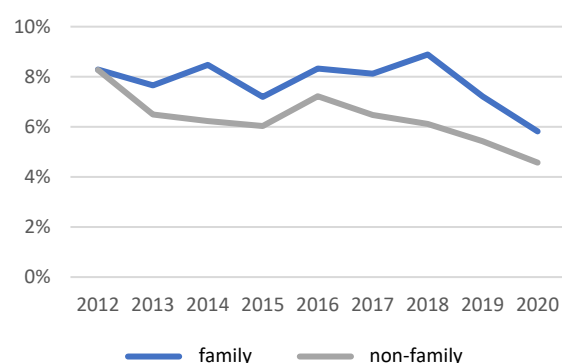
Fig. 6. Companies with bank loans (%)



Source: Author's elaboration.

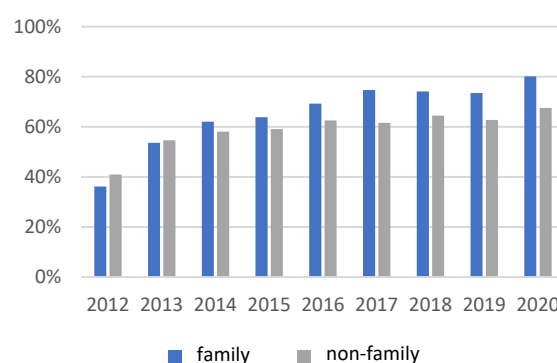
Family-owned firms had a higher median loan-to-assets ratio (Fig. 7). Nevertheless, the median decreased over the years for both family and non-family firms. The fraction of family companies using loans ranged from 36% to 80%, showing an increasing trend. For non-family entities, the part ranged from 41% to 68% (Fig. 8).

Fig. 7. Median loan-to-assets ratio



Source: Author's elaboration.

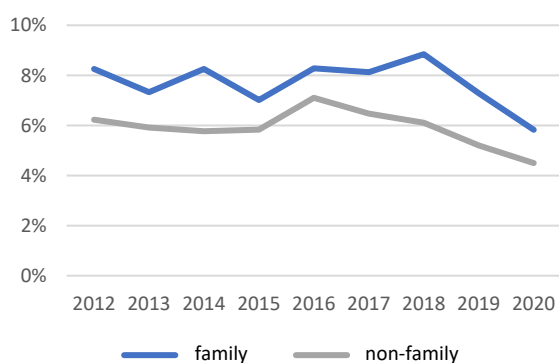
Fig. 8. Companies with loans (%)



Source: Author's elaboration.

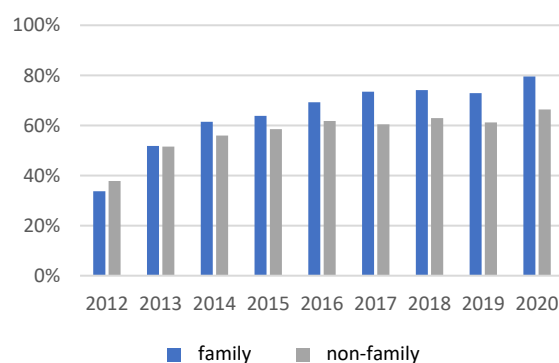
In the case of the ratio of short-term loans to assets, family-owned companies recorded a higher median in the analysed period (Fig. 9). A higher fraction of family-owned companies used this type of financing as of 2013 (Fig. 10). The median long-term interest-bearing debt ratio was higher for non-family companies between 2013 and 2018 (Fig. 11). As of 2013, a higher percentage of family companies engaged in long-term debt in financing their operations compared to non-family companies (Fig. 12).

Fig. 9. Median short-term loans to assets ratio



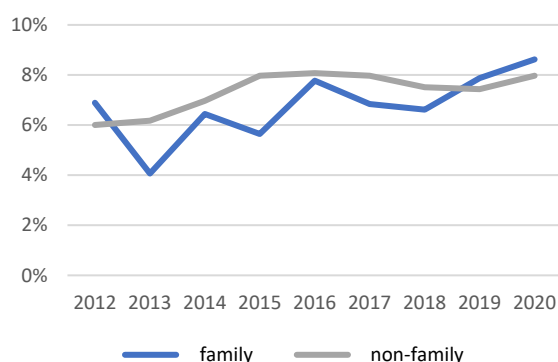
Source: Author's elaboration.

Fig. 10. Companies with short-term loans (%)



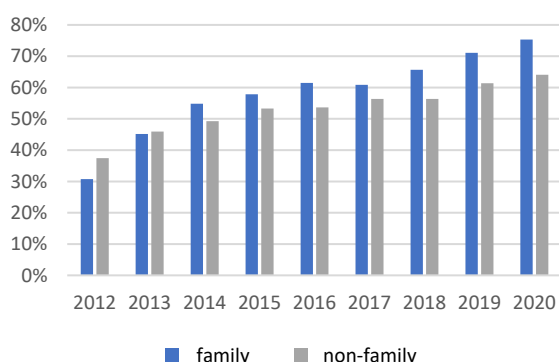
Source: Author's elaboration.

Fig. 11. Median long-term interest-bearing debt-to-assets ratio



Source: Author's elaboration.

Fig. 12. Companies with long-term interest-bearing debt (%)



Source: Author's elaboration.

In conclusion, it was found that family-owned companies exhibited higher debt ratios between 2012 and 2020 for the following categories: trade liabilities, loans, and short-term loans, in line with the expectations formulated in **H1** that the debt of family companies differs from that of non-family companies. For leasing, the differences between family and non-family companies were minimal. Higher ratios of long-term interest-bearing debt to assets were observed in non-family companies. This observation is inconsistent with prevailing arguments that suggest a preference by family-owned companies for long-term debt financing. Most family companies used trade liabilities, while fewer employed long-term interest-bearing debt, loans, short-term loans, leases, and bank credit.

3.3. Research design

We test whether family and non-family companies differ in capital structure choices using the Generalised Method of Moments (GMM) and the Arellano-Bover/Blundell-Bond estimator. The explained variable is the debt ratio, which was constructed using data on financial liabilities, including loans, leases, and bond issues. The explanatory variables used in the model include a binary variable taking the value of one for family firms, as well as several control variables commonly used in capital structure studies, such as firm size, profitability ratio, asset structure ratio, non-interest tax shield, liquidity ratio, and value-to-book value ratio. A credit rating variable was also included in the model - the Altman index - downloaded from Stockwatch.pl. In addition, binary variables identifying lenders, affiliation to the business group, foreign subsidiaries, foreign shareholders, tax haven subsidiaries and tax haven shareholders were included. The number of foreign and domestic subsidiaries, as well as the number of foreign and domestic shareholders, were also considered. Table 2 presents the definitions of the variables used. We performed a preliminary correlation analysis to verify the absence of multicollinearity problems for our set of variables. Table 3 presents descriptive statistics of continuous variables (Panel A) and reports the distribution of discrete variables (Panel B) for family and non-family firms. Interestingly, we find that almost 70% of family firms are lenders, whereas for non-family firms, this fraction is around 50%.

Furthermore, panel A shows that the family firms have, on average, a lower debt ratio than non-family firms (0.177 versus 0.215). This finding suggests that family businesses use less debt to limit the risk associated with their undiversified capital and human investments. Mean values for other variables also indicate differences among these two subgroups of firms. On average, family firms are smaller in terms of assets and have a higher number of domestic subsidiaries and domestic shareholders but fewer foreign subsidiaries and foreign shareholders.

Table 2. Definition of variables

Variable	Definition
<i>debt</i>	debt ratio measured by a ratio $\frac{\text{financial debt}}{\text{total assets}}$
<i>family</i>	dummy variable taking the value of one when the company is a family-owned company and zero otherwise
<i>size</i>	size of a company measured by $\ln(\text{total assets})$
<i>prof</i>	profitability ratio measured by $\frac{\text{net profit}}{\text{total assets}}$
<i>tang</i>	asset structure ratio measured by $\frac{\text{fixed assets}}{\text{total assets}}$
<i>liq</i>	liquidity ratio measured by $\frac{\text{cash}}{\text{total assets} - \text{cash}}$
<i>ndts</i>	non-interest tax shield measured by a ratio $\frac{\text{depreciation}}{\text{total assets}}$
<i>mtb</i>	market-to-book ratio measured by $\frac{\text{market capitalization}}{\text{net book value}}$
<i>lender</i>	a dummy variable taking the value of 1 when the company is a lender and zero otherwise
<i>business_group</i>	dummy variable taking the value of 1 when the company has at least one subsidiary and zero otherwise
<i>foreign_subsidary</i>	dummy variable taking the value of 1 when the company has at least one foreign subsidiary and zero otherwise
<i>foreign_shareholder</i>	dummy variable taking the value of 1 when the company has at least one foreign shareholder and zero otherwise
<i>haven_subsidaries</i>	subsidiary in a tax haven - a dummy variable taking the value of 1 when the company has at least 1 subsidiary located in a tax haven and 0 otherwise
<i>haven_shareholders</i>	shareholder in a tax haven - a dummy variable taking the value of 1 when the company has at least 1 shareholder from a tax haven and 0 otherwise
<i>no_subsidaries_foreign</i>	number of foreign subsidiaries measured by $\ln(1 + \text{number of foreign subsidiaries})$
<i>no_subsidaries_pl</i>	number of domestic subsidiaries measured by $\ln(1 + \text{number of domestic subsidiaries})$
<i>no_shareholders_foreign</i>	number of foreign shareholders measured by $\ln(1 + \text{number of foreign shareholders})$
<i>no_shareholders_pl</i>	number of domestic shareholders measured by $\ln(1 + \text{number of domestic shareholders})$
<i>no_shareholders</i>	total number of shareholders measured by $\ln(1 + \text{total number of shareholders})$
<i>no_subsidaries</i>	total number of subsidiaries measured by $\ln(1 + \text{total number of subsidiaries})$

Source: Author's elaboration.

Table 3. Descriptive statistics

Panel A	family	Variable	Mean	Std dev	Median	Minimum	Maximum	
	0	debt	0.215	0.288	0.144	0.000	1.896	
	1		0.177	0.168	0.158	0.000	1.896	
	Total		0.206	0.264	0.149	0.000	1.896	
	0	size	18.215	2.605	18.283	7.601	29.337	
	1		17.795	2.069	17.688	10.463	24.223	
	Total		18.110	2.488	18.118	7.601	29.337	
	0	prof	-0.086	0.526	0.022	-3.785	0.542	
	1		-0.001	0.295	0.034	-3.785	0.542	
	Total		-0.065	0.480	0.025	-3.785	0.542	
	0	tan	0.497	0.266	0.505	0.000	1.000	
	1		0.437	0.246	0.443	0.000	0.996	
	Total		0.482	0.263	0.489	0.000	1.000	
	0	liq	0.183	0.405	0.056	0.000	2.720	
	1		0.174	0.379	0.058	0.000	2.720	
	Total		0.180	0.399	0.056	0.000	2.720	
	0	mtb	2.243	5.386	1.068	-10.022	36.100	
	1		2.276	4.647	1.156	-10.022	36.100	
	Total		2.252	5.212	1.086	-10.022	36.100	
	0	ntds	0.044	0.049	0.032	0.000	0.290	
	1		0.041	0.039	0.032	0.000	0.290	
	Total		0.043	0.047	0.032	0.000	0.290	
	0	rating	3.472	15.874	5.053	-91.320	49.710	
	1		5.303	9.511	5.445	-91.320	49.710	
	Total		3.917	14.607	5.150	-91.320	49.710	
	0	no_subs_pl	1.104	1.009	1.099	0.000	4.522	
	1		1.139	1.022	1.099	0.000	5.697	
	Total		1.113	1.012	1.099	0.000	5.697	
	0	no_subs_foreign	0.490	0.963	0.000	0.000	5.313	
	1		0.375	0.699	0.000	0.000	3.367	
	Total		0.463	0.907	0.000	0.000	5.313	
	0	no_share_pl	1.365	0.656	1.609	0.000	2.773	
	1		1.381	0.416	1.386	0.000	2.398	
	Total		1.369	0.607	1.386	0.000	2.773	
	0	no_share_foreign	0.429	0.590	0.000	0.000	3.638	
	1		0.224	0.411	0.000	0.000	2.303	
	Total		0.380	0.559	0.000	0.000	3.638	
	0	no_subs	1.363	1.172	1.242	0.000	5.425	
	1		1.300	1.074	1.099	0.000	5.700	
	Total		1.348	1.150	1.099	0.000	5.700	
	0	no_share	1.639	0.559	1.792	0.000	3.784	
	1		1.512	0.379	1.609	0.693	2.485	
	Total		1.609	0.524	1.609	0.000	3.784	
Panel B – binary variables	family	Variable	Variable category: 0			Variable category: 1		
			N	Fraction	mean debt	N	Fraction	mean debt
	0	lender	2,313	49.61	0.239	2,349	50.39	0.197
	1		468	31.33	0.181	1,026	68.67	0.175
	Total		2,781	45.18	0.228	3,375	54.82	0.191
	0	business_group	1,197	25.68	0.224	3,465	74.32	0.213
	1		306	20.48	0.166	1,188	79.52	0.166
	Total		1,503	24.42	0.211	4,653	75.58	0.204
	0	foreign_subsidiaries	3,222	69.11	0.208	1,44	30.89	0.229
	1		1,044	69.88	0.163	450	30.12	0.207
	Total		4,266	69.30	0.197	1,89	30.70	0.224
	0	foreign_shareholders	2,7	57.92	0.196	1,962	42.08	0.239
	1		1,107	74.10	0.173	387	25.90	0.188
	Total		3,807	61.84	0.189	2,349	38.16	0.231
	0	haven_subsidary	4,275	92.05	0.209	369	7.95	0.281
	1		1,422	95.18	0.172	72	4.82	0.269
	Total		5,697	92.82	0.199	441	7.18	0.279
	0	haven_shareholders	3,348	71.81	0.198	1,314	28.19	0.255
	1		1,242	83.13	0.170	252	16.87	0.206
	Total		4,590	74.56	0.190	1,566	25.44	0.246

Note: To eliminate the impact of outliers, we have winsorised our variables at 0.01 and 0.99.

Source: Author's elaboration.

3.4. Results

Taking into account correlation analysis, we estimated five models for all sample companies (*All*), as well as the two subgroups: family (*F*) and non-family firms (*NF*). In all five models estimated for the full sample, the coefficient for the *family* variable was negative and statistically significant. The results confirm that family firms exhibit a different level of indebtedness compared to non-family firms. There was no evidence to reject hypothesis **H2** regarding the negative impact of family control on debt ratios. These findings are consistent with the trade-off theory, which posits that the costs of financial distress are more significant for family firms. Family owners with poorly diversified portfolios are more sensitive to the risk of asset loss and reputational damage. From the perspective of agency theory, the results may suggest that the involvement of a family member in management helps reduce information asymmetry and mitigates the conflict of interests between managers and shareholders.

Comparing the results of models estimated separately for family and non-family firms reveals differences in the significance of certain debt determinants. We begin by examining the control variables commonly used in capital structure research. The coefficients for the non-debt tax shield (*ndts*) and the market-to-book ratio (*mtb*) were found to be statistically insignificant in the models of family firms. In contrast, they were significant in the models for non-family firms. The coefficient for firm size (*size*) was statistically significant in the family firm models but not in those for non-family firms. In the case of family businesses, larger firms tend to exhibit higher debt ratios. This finding aligns with both the trade-off theory and agency theory. Larger firms tend to have more diversified operations, which reduces the risk of default.

Additionally, such firms typically have a longer market presence, making them more recognisable and allowing them to benefit from lower debt costs due to a stronger reputation (Czerwotka and Jaworski, 2017). Differences between family and non-family firms were also observed in two models for the liquidity ratio (*liq*).

Table 4. The Arellano–Bover/Blundell-Bond GMM estimation results for debt ratio

	debt														
	Model I			Model II			Model III			Model IV			Model V		
	All	F	NF	All	F	NF	All	F	NF	All	F	NF	All	F	NF
L1.debt	0.276*** (0.046)	0.651*** (0.039)	0.571*** (0.030)	0.211*** (0.044)	0.571*** (0.043)	0.555*** (0.029)	0.506*** (0.029)	0.578*** (0.038)	0.488*** (0.030)	0.544*** (0.033)	0.586*** (0.039)	0.549*** (0.034)	0.220*** (0.044)	0.609*** (0.042)	0.385*** (0.040)
family	-3.125*** (0.389)			-4.341*** (0.448)			-0.293* (0.180)			-0.642*** (0.228)			-2.424*** (0.272)		
size	-0.021*** (0.007)	0.024** (0.011)	0.003 (0.009)	-0.024*** (0.007)	0.032*** (0.011)	0.002 (0.009)	-0.006 (0.007)	0.036*** (0.010)	-0.004 (0.009)	-0.004 (0.007)	0.032*** (0.011)	-0.001 (0.009)	-0.023*** (0.007)	0.031*** (0.011)	-0.017** (0.009)
prof	-0.087*** (0.008)	-0.166*** (0.017)	-0.099*** (0.011)	-0.081*** (0.008)	-0.138*** (0.016)	-0.099*** (0.011)	-0.101*** (0.009)	-0.142*** (0.015)	-0.097*** (0.010)	-0.100*** (0.009)	-0.141*** (0.015)	-0.094*** (0.011)	-0.079*** (0.008)	-0.149*** (0.016)	-0.088*** (0.010)
liq	0.017 (0.011)	-0.010 (0.021)	0.023 (0.015)	0.014 (0.011)	-0.001 (0.021)	0.021 (0.015)	0.022* (0.012)	-0.013 (0.020)	0.024* (0.015)	0.022* (0.029)	-0.010 (0.021)	0.026* (0.015)	0.014 (0.011)	-0.011 (0.021)	0.021 (0.014)
tan	-0.003 (0.025)	0.049 (0.047)	-0.023 (0.034)	-0.005 (0.025)	0.086* (0.045)	-0.025 (0.454)	-0.010 (0.028)	0.037 (0.045)	-0.020 (0.033)	-0.014 (0.013)	0.043 (0.046)	-0.019 (0.034)	-0.005 (0.025)	0.040 (0.047)	-0.023 (0.031)
mtb	-0.003*** (0.001)	0.000 (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.001 (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.001 (0.001)	-0.004*** (0.001)	-0.003*** (0.001)	-0.001 (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.001 (0.001)	-0.004*** (0.001)
ntds	0.135 (0.089)	0.059 (0.179)	0.224* (0.122)	0.109 (0.087)	0.156 (0.173)	0.197* (0.121)	0.224** (0.097)	0.171 (0.170)	0.215* (0.115)	0.232** (0.099)	0.154 (0.172)	0.267** (0.119)	0.123 (0.087)	0.118 (0.175)	0.158 (0.112)
rating	-0.004*** (0.000)	-0.006*** (0.001)	-0.005*** (0.000)	-0.004*** (0.000)	-0.006*** (0.001)	-0.005*** (0.000)	-0.004*** (0.000)	-0.006*** (0.001)	-0.004*** (0.000)	-0.004*** (0.000)	-0.006* (0.129)	-0.004*** (0.000)	-0.004*** (0.000)	-0.006*** (0.001)	-0.004*** (0.000)
subsidiaries	-0.905*** (0.167)	-0.180 (0.120)	0.136 (0.236)	-0.917*** (0.158)	0.350** (0.151)	0.181 (0.436)									
lender	-0.611*** (0.150)	0.081 (0.102)	0.328** (0.133)	-1.113*** (0.174)	0.061 (0.098)	0.403*** (0.124)				1.128** (0.438)	0.126 (0.129)	2.406*** (0.532)	2.324*** (0.000)	-0.182 (0.124)	2.027*** (0.287)
foreign_subsiary	5.194*** (0.647)	-0.890*** (0.166)	-0.673* (0.384)	7.761*** (0.804)	-0.533*** (0.116)	-0.811* (0.395)									
foreign_shareholder				2.039*** (0.288)	-0.581*** (0.226)	-0.112 (0.233)									
no_subsiaries_pl							-0.279*** (0.096)	0.098 (0.065)	-0.327*** (0.105)	-0.424*** (0.113)	0.061 (0.076)	-0.594*** (0.124)	-0.780*** (0.101)	0.499** (0.207)	-0.874*** (0.130)
no_subsiaries_foreign							0.370*** (0.111)	-0.154 (0.120)	0.235** (0.102)	-0.206 (0.250)	-0.227 (0.142)	-0.650*** (0.222)			
no_shareholders_pl							0.240*** (0.091)	0.296*** (0.066)	0.090 (0.094)	-0.429 (0.276)	0.313*** (0.068)	-1.437*** (0.351)	-1.680*** (0.178)	0.328*** (0.064)	-1.260*** (0.207)
no_shareholders_foreign							-0.855*** (0.133)	0.017 (0.098)	-0.700*** (0.146)	0.178 (0.423)	0.114 (0.141)	1.326*** (0.472)			
haven_shareholders	0.856** (0.180)	1.057*** (0.310)	-0.290 (0.177)										2.657*** (0.319)	-1.273** (0.000)	1.363*** (0.321)
haven_subsiaries	-6.931*** (0.836)	-1.575*** (0.510)	0.581* (0.328)	-10.76*** (1.102)	1.235** (0.515)	0.585 (0.395)							-3.553*** (0.414)	1.643* (0.879)	-1.040*** (0.296)
constant	0.968*** (0.168)	-0.099 (0.196)	0.033 (0.223)	0.506*** (0.164)	-0.563*** (0.512)	-0.016 (0.254)	0.457** (0.190)	-1.005*** (0.196)	0.689*** (0.228)	0.825*** (0.241)	-1.008*** (0.197)	1.255*** (0.267)	2.650 (0.285)	-1.231*** (0.222)	1.840*** (0.305)
N	3,989	1,008	2,981	3,989	1,008	2,981	3,989	1,008	2,981	3,989	1,008	2,981	3,989	1,008	2,981
Test Walda	2,730.73	1,006.37	1,447.35	2,884.33	1,075.54	1,467.96	2,194.04	1,072.39	1,581.68	2,119.71	1,062.89	1,509.06	2,874.91	1,042.81	1,772.04
p-value	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively. All – total sample; F – family firms; NF – non-family firms

Note: To eliminate the impact of outliers, we have winsorised variables at 0.01 and 0.99.

Source: Author's elaboration.

The analysis of control variables confirms the existence of distinctions in debt financing practices between family and non-family companies. For non-family firms, many well-established determinants of indebtedness, commonly supported by the literature, proved to be significant. In contrast, similar significance was not observed in the case of family firms.

Differences in parameter estimates between family and non-family firms were also observed for variables related to business groups, shareholders, and tax havens. In family firms, the presence of a foreign shareholder was found to have a significant and negative impact on debt levels, suggesting that foreign shareholders may provide direct financial support, thereby reducing the need for external debt. A different pattern emerged for the variable representing shareholders in tax havens (*haven_shareholders*). In the case of family firms, the coefficient was positive in Model I but turned negative in Model V when controlling for the number of domestic shareholders (*no_shareholders_pl*) and domestic subsidiaries (*no_subsidiaries_pl*). This indicates that, in larger family business groups, links to tax havens through shareholders are associated with lower debt ratios. This suggests that family firms do not utilise debt as a means of tax avoidance through interest payments to shareholders in tax havens. Instead, they may rely on internal financing or channel funds through subsidiaries located in tax havens. In two models (when we control for the size of the business group, i.e. the number of subsidiaries, the number of shareholders, or the share of foreign capital), the estimated coefficient for the *haven_subsidiaries* variable is positive. However, in Model I, when controlling for foreign subsidiaries, it is negative.

Differences in coefficient signs were also observed for the number of domestic shareholders and domestic subsidiaries. For family firms, the coefficients are positive, while for non-family firms, they are negative. This suggests that family firms are more likely to support liquidity within the business group, possibly reflecting a paternalistic approach to group financing. A greater number of subsidiaries may indicate the existence of an internal capital

market within family business groups, where loans are provided to affiliated entities. Moreover, the coefficients for variables such as the *lender*, the number of foreign subsidiaries, and the number of foreign shareholders were statistically insignificant in explaining the debt levels of family firms, whereas these variables played a more substantial role in shaping the capital structure of non-family firms. As with control variables, the analysis of business group structures, ownership, and tax haven affiliations confirms that the determinants of debt differ notably between family and non-family companies. Thus, hypothesis **H3** cannot be rejected.

Additionally, the analysis was extended to examine the determinants of debt from the perspective of firms engaged in lending activities versus those not involved in such financial intermediation. The set of explanatory variables remained the same as those used in the previous models (Table 4), with the addition of two variables: the total number of shareholders (*no_shareholders*) and the total number of subsidiaries (*no_subsidaries*).

The analysis of the models presented in Table 5 indicates that family firms engaged in lending activities exhibit higher levels of indebtedness compared to their non-family counterparts. In contrast, family firms that do not provide loans demonstrate lower debt ratios than non-family firms. The results suggest that family firms may act as financial intermediaries, potentially due to their better or broader access to bank financing. Furthermore, the coefficient for the binary variable identifying the presence of a shareholder based in a tax haven (*tax_haven_shareholder*) is positive in the model for loan-providing firms, whereas this relationship is not observed in the models of firms that do not engage in lending activities.

Therefore, a connection to a tax haven (through the presence of a shareholder) appears to stimulate higher debt levels in firms engaged in lending activities compared to entities that do not act as lenders. A similar effect is observed in larger business groups and firms with a greater number of shareholders. In Model VII, estimated for the subgroup of lenders, the coefficients

for both the *no_subsidaries* and *no_shareholders* variables are positive, in contrast to the models for non-lending companies, where these relationships are not present or are reversed.

Table 5. The Arellano–Bover/Blundell–Bond estimation results for debt ratios of lenders and non-lenders

	Model VI		debt ratio Model VII		Model VIII	
	Lender =0	Lender =1	Lender =0	Lender =1	Lender =0	Lender =1
L1.debt	0.236*** (0.045)	0.335*** (0.039)	0.298*** (0.042)	0.555*** (0.029)	0.388*** (0.043)	0.443*** (0.036)
family	-4.093*** (0.414)	0.607** (0.239)	-3.291*** (0.381)	0.476*** (0.141)	-3.359*** (0.418)	0.109 (0.126)
size	-0.017 (0.012)	-0.016** (0.008)	-0.001 (0.011)	-0.011 (0.008)	-0.008 (0.012)	-0.017** (0.008)
prof	-0.079*** (0.013)	-0.089*** (0.010)	-0.083*** (0.013)	-0.114*** (0.011)	-0.093*** (0.014)	-0.107*** (0.010)
liq	0.014 (0.016)	0.023 (0.017)	0.016 (0.017)	0.025 (0.019)	0.010 (0.017)	0.026 (0.018)
tan	0.018 (0.042)	-0.014 (0.031)	0.008 (0.043)	-0.008 (0.034)	0.010 (0.045)	-0.006 (0.033)
mtb	-0.004*** (0.001)	-0.003*** (0.001)	-0.003*** (0.001)	-0.002** (0.001)	-0.004*** (0.001)	-0.002*** (0.001)
ntds	0.091 (0.150)	0.154 (0.106)	0.166 (0.152)	0.198* (0.117)	0.042 (0.158)	0.193* (0.112)
rating	-0.004*** (0.001)	-0.005*** (0.000)	-0.004*** (0.001)	-0.004*** (0.000)	-0.005*** (0.001)	-0.004*** (0.001)
no_subsidaries_ _pl	-0.323*** (0.093)	-0.875*** (0.145)				
no_subsidaries_ _foreign	-1.108 (0.084)	2.653*** (0.378)				
no_shareholders_ _pl	-0.285*** (0.106)	2.248*** (0.330)				
no_shareholders_ _foreign	-0.831*** (0.131)	-0.740 (0.289)				
no_subsidaries			-0.265*** (0.054)	0.121** (0.061)		
no_shareholders			-0.669*** (0.088)	0.400*** (0.102)		
subsidaries					0.113 (0.095)	0.004 (0.236)
haven_subsidary					-0.833*** (0.269)	-0.483* (0.257)
haven_shareholder					-0.971*** (0.173)	0.813*** (0.123)
constant	2.387** (0.308)	-2.789*** (0.553)	2.265*** (0.299)	-0.679*** (0.265)	1.223*** (0.238)	0.215 (0.283)
N	1,549	2,440	1,549	2,440	1,549	1,549
Test Walda	1,413.12*** (0.00)	1,790.07 (0.00)	1,328.26 (0.00)	1,416.20 (0.00)	1,222.58 (0.00)	1,603.22 (0.00)

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

Note: To eliminate the impact of outliers, we have winsorised our variables at 0.01 and 0.99.

Source: Author's elaboration.

In summary, the analysis of the debt structure of family-owned and non-family firms revealed notable differences between the two groups, consistent with the expectations outlined in hypothesis **H1**. The results of the econometric analysis confirmed that Polish publicly listed family firms exhibit different debt levels compared to non-family firms, with family control

exerting a negative influence on indebtedness. Moreover, the determinants of debt were found to differ between family and non-family companies. An additional conclusion drawn from the analysis is that family firms may function as financial intermediaries, benefiting from more favourable or broader access to bank financing than the entities to which they lend.

Conclusions

Both the theories and the empirical literature offer conflicting evidence regarding financial decision-making in family businesses, with studies indicating both positive and negative relationships between family control and debt ratios. These inconsistencies may stem from differences in the institutional environments of various countries, cultural factors, or even the definitions of family firms applied. Given the absence of a universally accepted definition, scholars adopt varying criteria to define family businesses, often tailored to the characteristics of a particular market. This definitional diversity underscores the heterogeneity of family firms, which may differ significantly in terms of the extent of family involvement in ownership and management, as well as in issues related to generational succession.

Drawing on theoretical frameworks and a review of the relevant literature, three research hypotheses were formulated and empirically tested using the Arellano–Bover/Blundell–Bond Generalised Method of Moments (GMM) estimator. The analysis was conducted on a panel dataset comprising 684 Polish companies listed on the Warsaw Stock Exchange between 2012 and 2020. The results of the empirical study confirmed all three initial hypotheses. First, it was demonstrated that publicly listed Polish family firms exhibit different debt ratios compared to non-family firms. Second, the findings indicate a negative relationship between family control and debt ratios. Third, the study confirmed the existence of differences in the determinants of debt between family and non-family companies.

The analysis of the most commonly examined determinants in the literature revealed that the parameter estimates for variables such as non-interest tax shields, the market-to-book

value ratio, and the liquidity ratio were statistically insignificant in explaining the debt ratios of family firms - unlike in the case of non-family entities, where these variables played a significant role. Additionally, a positive relationship was identified between firm size and debt ratios among family firms, a pattern not observed in non-family companies. This finding suggests that larger family firms may benefit from more favourable debt financing terms, likely due to their established reputations and longer market presence. Moreover, regarding variables related to business groups, shareholders, and connections to tax havens, notable discrepancies were found in the parameter estimates between family and non-family firms.

The analysis revealed that the presence of at least one foreign shareholder in a family firm is a significant factor negatively influencing debt levels. However, the overall number of foreign shareholders does not have a statistically significant impact on the firm's leverage. The results of the estimated models also suggest that, within larger business groups of family firms, shareholder connections to tax havens are associated with reduced debt ratios. Furthermore, the findings indicate that family firms do not utilise debt as a means of tax avoidance through interest payments to shareholders based on tax havens. Instead, such financial flows are directed toward subsidiaries located in tax havens.

Family firms also appear more inclined to support liquidity within the business group compared to non-family entities. The estimation of additional models enabled the identification of debt determinants specific to lending firms and those not engaged in such financial intermediation. The most significant finding suggests that family firms serve as financial intermediaries, offering more favourable or broader access to bank financing than their non-family counterparts.

In summary, the findings of this study confirm the conservative approach of family firms toward debt financing and provide evidence of the differentiated impact of capital structure determinants in family businesses compared to their non-family counterparts. The study also

examined the impact of factors related to business group affiliation, shareholder structure, connections to tax havens, and the role of lending activities in determining the debt ratios of family firms. However, this analysis represents only an initial step toward a more comprehensive understanding of the topic. Further, in-depth research is needed to fully capture the complexity and heterogeneity of financial decision-making in family-owned enterprises.

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