

Regent's Working Papers 2018 Working Paper 1806: RWP1806

Potentially lower IPO underpricing indicated in Spanish family firms compared to non-family firms

Fuencisla Martínez Lobato

Visiting Researcher, Entrepreneuship & Family Business Research Centre, Regent's University London, UK. Visiting from University of Valencia, Spain.

Departamento de Finanzas Empresariales, Edificio Departamental Oriental (5 planta), Facultad de Economía Avda. Tarongers s/n, Universitat de València, 46022 Valencia, Spain.

<u>fuencisla.martínez@uv.es</u>

Abstract: Despite the importance and uniqueness of the family firm, there are a limited number of studies worldwide exploring how family firms are exposed to the phenomenon of the underpricing of initial offerings when go public. The aim of this paper is to study if the family nature of a company translates into a difference in the valuation of its Initial Public Offering (IPO) compared to non-family firms. The results show that, in the Spanish Stock Exchange, family firms experience underpricing in its initial offers, but this is significantly lower than the underprincing of non-family firms.

Keywords: family firm; underpricing; going public; IPO; information asymmetries

Glossary

BME: Bolsas y Mercados Españoles SA

CEO: Chief Executive Officer

CNMV: Comisión Nacional del Mercado de Valores

IPO: Initial Public Offering

FF: Family Firm

GDP: Gross Domestic Product MLOT: Money left on the table

NFF: Non-family firm

OCEO: Percentage of Ownership held by the Chief Executive Officer before going public

OLS: Ordinary Least Squares

ORPO: Percentage of Ownership Retained by the pre-IPO Principal Owners after going public OSCEO: Percentage of Ownerhsip sold by the Chief Executive Officer in the IPO in relation to the

total number of shares included in the IPO

PO: Primary Offering

PPO: Ratio of Participation in the offer of the pre-IPO Principal Owners

QCA: Qualitative Comparative Analysis

R Market return in the first day of trading

RBV: Resource-Based View ROA: Return On Asset ROE: Return On Equity

SABI: Sistema de Análisis de Balances Ibéricos database

SO: Secondary Offering

I. Introduction

There are several studies that highlight the importance of family firms in the majority of developed economies and their contribution to the economic and social levels. The significance of the family firm in the economy is not the only reason that justifies the need to research on the different aspects that characterize this type of business. In addition, there is consensus in the literature that there are differences in the management style of the family firm compared to businesses administered by professionals outside a family group (Daily and Dollinger, 1991); (Habbershon and Williams, 1999); (Chrisman et al., 2003); (Zellweger et al., 2010). Family firms are unique as they are the result of the interaction between three independent and overlapping subsystems: family, ownership and business (Gersick et al., 1997). Consequently, it is necessary to analyse how the idiosyncrasy of the family firm is translated into different behaviours and results when compared to the non-family firm. In this sense, different theoretical approaches, like Agency Theory and the Resource-Based View (RBV) are used to explain the positive and negative aspects that distinguish and shape the unique nature of family firms.

There has been a growing interest in the study of family firms that has led to a significant body of knowledge. However, several authors in their reviews on the current state of the field of research on family firms have indicated that gaps still exist.² Accordingly, there is a lack of research on one of the major financial challenges faced by the family firm, namely, access to capital markets and, more specifically, on the exposure of the family firm to the anomalies that occur when a firm goes public by an Initial Public Offering (IPO), such as the underpricing of the initial offering of shares.

The literature dealing with going public through an initial offering of shares has revealed the existence of a generally observed phenomenon, namely, the underpricing of this initial offer. This means that usually, when a company goes public, its initial public offering is carried out at a price lower than its market value. This event has been widely studied from both theoretical and empirical perspectives, but it remains an unresolved issue. However, there is a lack of studies worldwide exploring the effect of the family nature of the ownership structure on the valuation of IPO. The specific and idiosyncratic features of the family firm may result in lower uncertainty about its value. In this sense, family firms are characterised, among others, by a long-term orientation, a greater risk aversion, a greater involvement of the owner family in the management of the firm and greater reputation. All these features may lead investors to perceive a lower uncertainty about the value of family firms at the time of going public and, therefore, a lower underpricing would be necessary in the framework of the theories based on the existence of information asymmetries.

Therefore, the objective of this work is to provide new empirical evidence on whether family businesses show differences in the valuation of their IPO with respect to non-family companies. This may be the first study to analyse the effect of the family nature of the ownership structure on IPO valuation in the Spanish Stock Exchange. The degree of ex-ante uncertainty for IPO in the Spanish capital market is lower than in other countries due to its specific characteristics. According to Álvarez and Lopez-Iturriaga (2018), Spanish stock markets are not as developed as Anglo-Saxon stock markets, so that, firms which go public are usually more mature and well known and there is a long period prior to IPO registration, in which issuing firms are allowed to disclose information regarding its value. In addition, Spanish IPO market has a high number of family firms. So, this market can offer different results from other countries.

The underpricing in a sample of family and non-family firms that went public through an initial offering of shares in the Spanish capital market in the period from 1994 to 2012 is analysed. The results confirm the existence of a significant underpricing, regardless of the nature of the firm, although, on average, it is significantly lower in family firms. Consequently, they access the Spanish Stock Exchange bearing a lower risk of adverse selection.

¹ See, among others, the works of Shleifer and Vishny (1986), La Porta et al. (1999), Faccio and Lang (2002), Anderson and Reeb (2003) and Sacristán and Gómez (2006).

² See, among others, the works of Debicki et al. (2009), Chrisman et al. (2010), Litz et al. (2012), Yu et al. (2012) and James et al. (2012).

The remainder of this work is structured as follows. Section 2 presents the theoretical basis and the hypotheses to be tested. The sample and its characteristics are explained in Section 3. Section 4 sets out the results obtained. Finally, the main conclusions of the study are presented in section 5.

2. IPO underpricing in family firms

It has been observed that generally when a company goes public through an IPO, a discount price is offered, so that the investors who subscribe shares in the initial offering get abnormally positive stock market returns in the short-term. It has been identified as the phenomenon of underpricing and has attracted the interest of researchers in developing theoretical models that explain the anomaly. ³ Stoll and Curley (1970), Mc Donald and Fisher (1972), Logue (1973), Reilly (1973) and Ibbotson (1975) were the first works that documented this phenomenon. Ibbotson (1975) pioneered a list of possible explanations for underpricing and was followed by other early works such as Ritter (1984, 1987), Rock (1986), Beatty and Ritter (1986) and Welch (1989), with explanations that have been formally studied by numerous authors in later works. Ljungqvist (2007) groups such theories into four blocks; asymmetric information models, theories based on differences in the institutional features relating to stock markets across countries, theoretical approaches that consider the objectives of ownership and control pursued by the issuing firm, and models of behaviour. But there is still an open debate to answer the question why in an IPO shares are sold at a discount rather than a supposedly fair value. According to Ljungqvist (2007) empirical evidence supports the view based on asymmetric information as the main cause of underpricing.

Asymmetric Information models are based on the assumption that at least one of the parties involved in a transaction has a higher level of information than the others, which means that its pricing may not be fair. Accordingly, in relation to IPO, some researches deal with the informational frictions between the issuing firm and the investors (Welch, 1989), while others focus on the agency problem that exists between the issuing firm and the financial mediating agent (Baron, 1982). Yet another part of the literature looks at the fact that all investors do not have the same level of information (Rock, 1986), (Benveniste and Spindt, 1989).

Regarding family firms, they are characterised, among others, (i) by a strong sense of long-term mission and objectives (Dreux, 1990), (Moscetello, 1990); (ii) by a less sensitivity to economic cycles and greater stability Ward, 1997); (iii) by the provision of "human capital", "patient financial capital" and "survivability capital" (Sirmon and Hitt, 2003); (iv) by a stronger network of relationships with suppliers, clients and other stakeholders (Lyman, 1991) which translates into high ability to communicate firm value and so, better image and reputation (Lyman, 1991), (Tagiuri and Davis, 1996), (Ward and Aronoff, 1991). Moreover, as indicate by Croci et al. (2011), the family firm is generally considered to be more risk averse than the non-family firm, since a significant part of the wealth of the shareholders, who also manage the business, is exposed to the specific risk of the business and, therefore, managers are more likely to adopt conservative investment policies. Several studies have found that family firms underinvest in R&D (Chrisman and Patel, 2012), (Chen and Hsu, 2009), (Gómez-Mejía et al., 2014), (Muñoz-Bullón and Sánchez-Bueno, 2011) and therefore have less information asymmetries (Gómez-Mejía et al., 2014). Therefore, all these features may lead to investors to perceive a lower uncertainty ex-ante about the value of family firms at the time of going public and, thus, a lower underpricing would be necessary. Thus, based on RBV, these family firm attributes can translate into a competitive advantage on IPO valuation when it decides to start trading on the stock market.

On the other hand, several works based on Agency Theory and/or RBV (McCounaghy et al., 1998), (Anderson and Reeb, 2003), (Villalonga and Amit, 2006) have provided empirical evidence that family firms overperform non-family firms, and thus more value is attributed to the family firm compared to the non-family firm. Therefore, whether this premise is true and thus the family involvement in a company is perceived as a sign of the high quality of it, the family business would not need to draw on the IPO underpricing to signal its good quality.

³ A summary of the studies on the underpricing in Initial Public Offering (IPO) from different countries can be found in Loughran et al. (1994), with updates at http://bear.warrington.ufl.edu/ritter/pbritter.htm and in Ritter (2003).

However, research on the influence of the family nature of the ownership structure on the valuation of IPO is scarce and offers non-definitive results. Previous studies are Leitterstorf and Rau (2014) on Germany, Schmid and Jithendranathan (2012) on the USA, Mroczkowski and Tanewski (2005) on Australia, Ding and Pukthuanthong-Le (2008) on Taiwan, Durukan (2006) on the Turkish market, Hearn (2011) on the markets of North Africa, and Yu and Zheng (2012) for Hong Kong. They found family firms experience underpricing in its initial share offering; but, with the exception of Leitterstorf and Rau (2014) and Yu and Zheng (2012), it is significantly lower than non-family firms. To the best of our knowledge, this is the first study to analyse the effect of the family nature of the ownership structure on IPO valuation in the main Spanish stock market.

Accordingly, the following hypothesis is made:

H: Family firms need to underprice IPO less than non-family firms.

3. Sample and features

The sample of our study consists of those firms that went public in the Spanish Stock Exchange over the period 1994-2012 through an initial offering of shares. In order to homogenize the sample, of the 72 initial offerings that occurred in our market in this period, those carried out in the process of privatization of public enterprises have been excluded, since the underlying motivations for carrying out the offer differ from those of private companies.⁴ Furthermore, those made by financial institutions are not considered, nor the IPO of two foreign companies in the Spanish Stock Exchange. As a result, the final sample for our analysis consists of 56 initial offerings carried out in the Spanish Stock Exchange in the period 1994-2012. It should be noted that 7 initial offerings are primary offerings (PO), and therefore funds are provided to the firm by selling new shares, 28 are secondary offerings (SO), that is, old shares offerings, and 20 are mixed offerings.⁵

The data on the initial offers have been obtained from the prospectuses requested to companies that applied to be admitted to trading. They are available through the website of the Spanish Exchange Commission, the Comisión Nacional del Mercado de Valores (CNMV) for the initial offerings made from the second half of 1998.6 Accounting and financial data come from the SABI (Sistema de Análisis de Balances Ibéricos) database and stock data were acquired from Bolsas y Mercados Españoles SA (BME). In addition, to extract more data related to the ownership structure of the firms, annual financial and audit reports deposited by firms in the CNMV were conducted.

For the purpose of the study, the total sample was divided into two groups based on the family or non-family nature of the firm. To do this, a company is defined as a family firm if members of one or more families have a stake in the ownership and in the rights of control of at least 50%, which classifies the total sample into 23 initial offerings of family firms (FF) and 33 initial offerings of non-family firms (NFF).⁷ Although it has not been demanded as an *a priori* requirement, all firms in the sample that have been classified as family firms have at least one family member in some position on the Board of Directors and/or senior management.

Table I shows the characteristics of the total sample, as well as the family and non-family subsamples, in the year prior to going public. Interestingly, in the mean and the median, the family firm is significantly more profitable than the non-family firm, regardless of whether or not its financial structure is considered. Thus, it can be deduced that the Spanish family firm is in a stronger financial position than the non-family firm prior to the decision to go public. This result could be explained by the following

⁴ See, among others, Megginson et al. (1994) and Farinós et al. (2007).

⁵ Information about the sort of the issue is not available for one case.

⁶ The prospectuses of initial offers made prior to the second half of 1998 are not available on the website of the CNMV and, although we tried to access the paper format, in the end we did not obtain access. For this reason, for the oldest initial offers we lack some data.

⁷ According to Steiger et al. (2015), there is still currently a lack of consensus on the appropriate definition of family firm. For operational reasons, the criterion of family involvement in the firm through the ownership of shares and the rights of control is still widely used in various papers, such as: Gerald et al. (2002), Faccio and Lang (2002), Barontini and Caprio (2006), Sraer and Thesmar (2007), Kowalewski et al. (2010).

reasons: either by the major effort made by the family firm to face the momentous event of going public in reasonable economic conditions; or because under the Resource-Based View such businesses are characterized by a familiness which brings competitive advantages compared to the non-family firm; and/or because from Agency Theory the family firm faces lower agency costs than the non-family firm. Moreover, the percentage of ownership that the chief executive officer (CEO) has before going public (OCEO) is significantly greater in family firm than in non-family firm. This is a consequence of the known fact that family firms are characterized by concentrated managerial ownership.

Table 2 shows the characteristics of the initial offers of the firms in the sample and the subsamples of family and non-family firms. Among others, it can be observed that the proportion of shares retained by the pre-IPO principal owners after going public (ORPO) is on average 55% and does not indicate significant differences between family firms and non-family firms, which reveals that, for Spanish firms, going public does not immediately translate into a loss of control by the original owners regardless of whether the company is a family or a non-family firm. As well, the percentage of shares the CEO sells in the initial offering in relation to the total number of shares included in the IPO (OSCEO) is significantly greater in family firms than in non-family firms.

Table I. Characteristics of the sample. Characteristics of the firms in the sample prior to going public and the results of the tests of the equality of means and medians between the group of family firms (FF) and the group of non-family firms (NFF). Age is measured as the number of years from the foundation to the start of trading; Size is measured by total asset value deflated to 1993 monetary units; ROA, return on assets (earnings before interest and taxes/assets); ROE, return on equity (net income/equity); Cash Flow/Assets, earnings before interest and taxes plus depreciation with respect to assets; Leverage measured by the percentage that debts represent in the total financial resources; OCEO, percentage of ownership held by the CEO before going public. For each feature, the first value corresponds to the mean, the second to the median and the third to the number of data. To test whether the mean difference between the sample of family and non-family firms is significant, we use the parametric Student's t-test and for the test of the difference of medians the Kruskal-Wallis test.

	Age (years)	Assets size (€ million)	ROA (%)	ROE (%)	Cash Flow/Assets (%)	Leverage (%)	OCEO (%)
	21.4	906.1	9.7	19.8	14.9	59.6	57.2
SAMPLE	15.6	258.7	8.8	18.1	12.9	66. l	67.0
	56	56	56	56	49	56	49
	21.8	653.3	12.9°	32.6°	15.5	60.9	76.7 ^a
FF	18.9	255.5	11. 7 °	19.7°	12.2	66. l	73.0 ^a
	23	23	23	23	23	23	20
	21.1	1,082.2	7.5	10.9	14.5	58.7	43.7
NFF	11.9	261.8	7.3	11.6	15.9	66. I	34.6
	33	33	33	33	26	33	29

a, b, c denotes significance at the 1%, 5% and 10% levels, respectively.

Table 2. Characteristics of the initial offers. Mean, median and number of observations of some offer characteristics and tests of equality. PANEL A: mean and median values of the size, price of the offer, percentage of ownership retained by the pre-IPO principal owners after going public (ORPO), percentage of shares sold by the CEO in the initial offering in relation to the total number of shares included in the IPO (OSCEO) and the ratio of participation in the offer of the pre-IPO principal owners (PPO), as well as the distribution of the sample according to the type of offer: primary offering (PO), secondary offering (SO) and mixed offering. PANEL B: mean and median values of the number of shares issued and of the percentages that represent the new shares and the old shares compared to the total issued. PANEL C: Mean and median percentages of the assignment of the shares in the offer among different groups of investors. For each feature, the first value corresponds to the mean, the second to the median and the third to the number of data. To test whether the mean difference between the sample of family and non-family firms is significant, we use the parametric Student's t-test and for the test of the difference of medians the Kruskal-Wallis test.

504 1 134 550 310 285 7 (12.7)		Offer size (€ million)	Offer price (€)	ORPO (%)	OSCEO (%)	PPO (%)	Offer type No. PO (%) No. SO (%) No. Mixed (%) N
SAMPLE 233.1 12.8 57.0 12.2 28.6 28 (30.4) 20 (36.4) 55 55 55 55 55 55 55		E04 I	12.4	EE 0	21.0	20 E	
## Add	COMPLETE						28 (50.9)
FF	SAMPLE						20 (36.4)
FF 243.7 14.2 56.7 51.8 27.3 9 (39.1) 23 23 21 20 23 9 (39.1) 23 3 (9.4) NFF 193.9 12.6 57.3 0.4 30.0 18 (56.2) 33 33 32 30 32 30 32 31 (1 (34.4) 32 PANEL B: TYPES OF SHARES ISSUED N° Shares issued (€ million) Former shares (%) New shares (%) Green Shoe shares (€ million)		36	36	33	30	33	55
FF 243.7 14.2 56.7 51.8 27.3 10 (43.5) 9 (39.1) 23 23 23 21 20 23 23 23 23 23 23 23		449.8	14.5	57.4	48.5ª	24.9	
NFF	FF						
NFF							
NFF		25	23		20	23	
PANEL B: TYPES OF SHARES ISSUED **PANEL B: TYPES OF SHARES ISSUED **N° Shares issued (€ million)** **Tile		541.9	13.0	53.4	19.3	31.0	
PANEL B: TYPES OF SHARES ISSUED N° Shares issued (€ million) Former shares (%) New shares (%) Green Shoe shares (%)	NFF	193.9	12.6	57.3	0.4	30.0	
PANEL B: TYPES OF SHARES ISSUED N° Shares issued (€ million) Former shares (%) New shares (%) Green Shoe shares (%)		33	33	32	30	32	
(€ million) Former shares (%) New shares (%) Green Shoe shares (%) COMPLETE SAMPLE 52.7 68.4 23.4 8.7 SAMPLE 16.4 87.0 0.0 9.1 SAMPLE 56 55 55 52 FF 15.6 77.3 16.0 9.0 23 23 23 22 NFF 17.3 87.2 0.0 9.1 33 32 32 30 PANEL C: ASSIGNMENT OF SHARES Retail (%) Employees (%) Institutions (%) Green Shoe shares (COMPLETE SAMPLE 18.0 0.0 70.7 8.7 SAMPLE 54 54 54 52 20.4 0.3 70.6 8.9 FF 22.4 0.0 68.2 9.0 23 22 23 22 21.4 0.3 70.9 8.5	PANEL B: TYPE	ES OF SHARES ISS	UED				
Temple 16.4			Former sh	ares (%)	New shares (%)) Green S	Shoe shares (%
SAMPLE 16.4 56 87.0 0.0 9.1 52 36.5 56 55 55 52 FF 15.6 77.3 16.0 9.0 23 22 22 NFF 17.3 87.2 0.0 9.1 33 32 32 85 PANEL C: ASSIGNMENT OF SHARES Employees (%) Institutions (%) Green Shoe shares (COMPLETE SAMPLE 18.0 0.0 70.0 9.1 54 54 54 54 54 52 FF 22.4 0.0 68.2 9.0 23 22 23 22 9.0 23 22 23 22 21.4 0.3 70.9 8.5	COMPLETE	52.7	68.	4	23.4		8.7
FF 36.5 66.3 25.2 8.9 77.3 16.0 9.0 23 23 23 22 23 23 22 24 23 24 25 24 25 25 25 25 25							
FF 15.6 77.3 16.0 9.0 23 23 23 22 ANFF 64.0 69.9 22.1 8.5 NFF 17.3 87.2 0.0 9.1 33 32 32 30 PANEL C: ASSIGNMENT OF SHARES Retail (%) Employees (%) Institutions (%) Green Shoe shares (COMPLETE SAMPLE 18.0 0.0 70.7 8.7 SAMPLE 18.0 0.0 70.0 9.1 54 54 54 52 FF 22.4 0.0 68.2 9.0 23 22 23 22 21.4 0.3 70.9 8.5	JAI'II LL	56	55		55		52
PANEL C: ASSIGNMENT OF SHARES							
NFF 64.0 17.3 87.2 0.0 9.1 33 32 32 30 PANEL C: ASSIGNMENT OF SHARES Retail (%) Employees (%) Institutions (%) Green Shoe shares (COMPLETE SAMPLE 21.0 0.3 70.7 8.7 8.7 9.1 54 54 54 54 52 FF 20.4 0.3 70.6 8.9 54 54 54 52 FF 22.4 0.0 68.2 9.0 23 22 23 22 21.4 0.3 70.9 8.5	FF						
NFF 17.3 87.2 0.0 9.1 PANEL C: ASSIGNMENT OF SHARES Retail (%) Employees (%) Institutions (%) Green Shoe shares (COMPLETE SAMPLE 21.0 0.3 70.7 8.7 54 54 54 54 54 54 54 52 FF 22.4 0.0 68.2 9.0 23 22 23 22 21.4 0.3 70.9 8.5		23	23		23		22
Retail (%) Employees (%) Institutions (%) Green Shoe shares (**) COMPLETE							
PANEL C: ASSIGNMENT OF SHARES Retail (%) Employees (%) Institutions (%) Green Shoe shares (COMPLETE 18.0 0.0 70.0 9.1 SAMPLE 54 54 54 52 FF 20.4 0.3 70.6 8.9 FF 22.4 0.0 68.2 9.0 23 22 23 22 21.4 0.3 70.9 8.5	NFF						
Retail (%) Employees (%) Institutions (%) Green Shoe shares (COMPLETE SAMPLE 21.0 0.3 70.7 8.7 18.0 0.0 70.0 9.1 54 54 54 52 20.4 0.3 70.6 8.9 FF 22.4 0.0 68.2 9.0 23 22 23 22 21.4 0.3 70.9 8.5					32		30
COMPLETE SAMPLE 21.0 0.3 70.7 8.7 18.0 0.0 70.0 9.1 54 54 54 52 20.4 0.3 70.6 8.9 FF 22.4 0.0 68.2 9.0 23 22 23 22 21.4 0.3 70.9 8.5	PANEL C: ASSI			(0/)			21 1 (0)
SAMPLE 18.0 0.0 70.0 9.1 54 54 54 52 20.4 0.3 70.6 8.9 FF 22.4 0.0 68.2 9.0 23 22 23 22 21.4 0.3 70.9 8.5						Green	
SAMPLE 18.0 54 0.0 70.0 51 54 54 54 20.4 0.3 70.6 8.9 FF 22.4 0.0 68.2 9.0 23 23 22 23 22 21.4 0.3 70.9 8.5	COMPLETE						
FF 20.4 0.3 70.6 8.9 20.4 0.0 68.2 9.0 23 22 23 22 21.4 0.3 70.9 8.5							
FF 22.4 0.0 68.2 9.0 23 22 23 22 21.4 0.3 70.9 8.5							
23 22 23 22 21.4 0.3 70.9 8.5							
21.4 0.3 70.9 8.5	FF						
		23	22	i	23		22
NFF 17.9 0.0 72.7 9.1							

^{a. b. c} denotes significance at the 1%, 5% and 10% levels, respectively.

4. Analysis of the initial offering underpricing: family firms versus non-family firms

4.1 Methodology

With regard to the estimation of the underpricing of initial offers, two measures have been used. First, the underpricing as the relative change in the price of the subsequent trading of the shares on the stock market compared to the initial offer price was calculated, i.e. the percentage difference between the closing price on the first trading day and the offer price (R). Second, the "money left on the table" (MLOT) has been measured, i.e. the amount of financial resources that the issuing firm fails to obtain at the initial offering, under the assumption that it could have sold the shares at a price equal to the closing of the first day of trading in the secondary market (Loughran and Ritter, 2002). Specifically, the number of shares issued and the difference between the first closing price and the initial offer price has been multiplied.

A univariate analysis with parametric and nonparametric tests has been carried out. Specifically, the parametric Student's t-test has applied in order to analyse whether the average values are significantly different from zero and to compare whether there are significant differences between the mean values of family firms and non-family firms. Given the small size of the samples, and in order to strengthen our results, the bootstrap methodology was applied to generate the empirical distribution of returns under the null hypothesis, thus relaxing the hypotheses of normality, stationarity and temporal independence of the observations (Efron, 1982). Since it is not possible to guarantee symmetry in the data, the contrasts for the medians of the values using the Wilcoxon signed-rank test and the Kruskal-Wallis test have been undertaken.

4.2 Results

Table 3 shows a clear underpricing for the total sample both for the mean and the median regardless of the measure used. Specifically, we obtain initial returns that are positive and statistically significant, both with the parametric contrast as well as the bootstrap method, of just over 15%. When we measure the underpricing through the "money left on the table", we also find it to be significant, exceeding 51 million euros on average per IPO. This result is consistent with previous international and national evidence.

Table 3. Mean (median) underpricing of the initial offers in the Spanish Stock Exchange of family (FF) and non-family (NFF) firms. Is shown the market return in the first day of trading (R) which is expressed in percentage and the "money left on the table" (MLOT) which is expressed in millions euros of 1993, using the deflator of GDP. To test the null hypothesis of return/money left on the table equal to zero we have used the parametric test and bootstrap of the conventional *t* and the non-parametric test of the signed-rank of Wilcoxon. For the tests of equality of means and medians between FF and NFF we have used the parametric test and bootstrap of the *t* with unequal variances and the non-parametric test of Kruskal–Wallis, respectively.

	COMPLETE SAMPLE	FF	NFF	DIFFERENCE (FF-NFF)
R	***15.6a	***9.5a	***19.9a	*-10.4
	(5.8)a	(4.8)a	(6.4)a	(1.7)
MLOT	***51 [°] .3 ^b	***31.2c	**65.4	-34.Î
	(6.9) ^a	(6.8)a	(6.9) ^a	(-0.2)

a, b, c denotes significance at the 1%, 5% and 10% levels, respectively.

When we break the sample down into FF and NFF, we also obtain initial yields that are positive and significant, in the mean and median. Specifically, in the case of family firms the mean exceeds 9%, while for non-family firms is around 20%. Such differences between the FF and the NFF are significant when the bootstrap methodology is used, which shows that family firms underprice (on average) their initial offers significantly less than non-family firms do. When the underpricing through the "money left on

denotes significance at the 1%, 5% and 10% levels, respectively, using the bootstrap methodology.

the table" is measured, it is also significant, with the mean being more than 31 million euros in the case of the FF and more than 65 million euros in the case of the NFF. In short, the lower degree of uncertainty about its value and/or its objectives with respect to its ownership structure allows family firms to set an initial offering price closer to its market value. This result is consistent with the evidence found by Mroczkowski and Tanewski (2005), Ding and Pukthuanthong-Le (2008), Hearn (2011) and Schmid and Jithendranathan (2012). However, it is contrary to the results obtained by Yu and Zheng (2012) in the Stock Exchange of Hong Kong (SEHK) and Leitterstorf and Rau (2014) in Germany.

5. Conclusions

A widely documented phenomenon in the literature is the underpricing experienced by firms that go public through an initial offering of shares. However, there is scarce research about the special case of family firms. The study of the underpricing of family firms going public is necessary because the specific and idiosyncratic features of a family firm may result in a lower uncertainty about its value and, therefore, in a lower level of underpricing than the non–family firm.

The descriptive analysis of the sample shows that Spanish family firms have greater economic and financial profitability than non-family firms prior to going public, which reveals that they face better performance conditions than non-family firms when making this strategic decision. This result can be explained either by the major effort of the family firm to face the momentous event of going public in a reasonable economic condition, or because it is generally characterised by a familiness which grants it competitive advantages over the non-family firm.

As revealed by previous national and international evidence, for the full sample of initial offers on the Spanish market and for subsamples of family and non-family firms, significant underpricing has been found. In addition, the results exhibit that family firms have an average underpricing significantly lower than non-family firms. This result is in line with those achieved for IPOs of family and non-family firms in the Taiwan, American, Australian, North Africa markets, but is in contrast to the result obtained in the German and in the Hong Kong stock market. Weaker evidence is found that the possible peculiarities seen in the family firm translate into valuation differences with regard to the non-family firm when it decides to go public through an initial offering. Specifically, the greater aversion to risk, its orientation to the long-term, its greater reputation, the involvement of the owner family in the management of the business, the better performance with which it accesses the stock market and, ultimately, the greater value that various studies attribute to the family firm compared to the non-family one, are all translated into lower information asymmetries and, therefore, into less need for underpricing at the time of going public.

6. Further research

In future extensions of this research, the possible effect of familiness in the valuation of the IPO will be explored through a multivariate analysis in the context of several theoretical models which try to explain IPO underpricing. For it, different methodologies will be applied in order to verify the robustness of the results. So, on the one hand, traditional quantitative techniques will be used, that is ordinary least squares (OLS). But, since the small size of the sample could lead to inaccurate results, Qualitative Comparative Analysis (QCA) will be carried out, too.

In addition, two other phenomena generally detected in IPOs will be studied in the case of family businesses, namely: abnormally low long-term stock market performance and abnormal decline in operating performance of companies after going public. The purpose will also be to test whether the idiosyncrasy of family firms translates into a different exposure to these anomalies compared to non-family firms.

7. References

Alvarez Otero, S. & Lopez-Iturriaga, F.J. (2018). "Does corporate governance affect the valuation of Spanish IPOs? The role of ownership structure and the board of directors", *Spanish Journal of Finance and Accounting*, DOI: 10.1080/02102412.2018.1429556

Anderson, R.C. & Reeb, D.M. (2003). "Founding-family ownership and firm performance: evidence from the S&P 500", *The Journal of Finance*, 58 (3), 1301-1328.

Baron, D. (1982). "A model of the demand of investment banking advising and distribution services for new issues", *Journal of Finance*, 37, 955-976.

Barontini, R. & Caprio, L. (2006). "The effect of family control on firm value and performance: evidence from continental Europe", European Financial Management, 12 (5), 689-723.

Barry, C & Brown, S. (1984). "Differential information and the small firm effect", *Journal of Financial Economics*, 13 (2), 283-294.

Beatty, R. & Ritter, J. (1986). "Investment banking, reputation and the underpricing of initial public offerings", Journal of Financial Economics, 15, 213-232.

Benveniste, L. & Spindt, P. (1989). "How investment bankers determine the offer Price and allocation of new issues", *Journal of Financial Economics*, 24, 343-361.

Chen, H.L. & Hsu, W.T. (2009). "Family ownership, board independence, and R&D investment", Family Business Review, 22, 347–362.

Chrisman, J.J., Chua, J.H. & Litz, R. (2003). "A unified systems perspective of family firm performance: an extension and integration", *Journal of Business Venturing*, 18, 467-472.

Chrisman, J.J., Kellermanns, F.W., Chan, K.C. & Liano, K. (2010). "Intellectual foundations of current research in family firm: an identification and review of 25 influential articles", *Family Business Review*, 23 (1), 9-26.

Chrisman, J.J. & Patel, P.C. (2012). "Variations in R&D investments of family and non-family firms: Behavioral agency and myopic loss aversion", *Academy of Management Journal*, 55, 976–997.

Croci, E., Doukas, J.A. & Gonenc, H. (2011). "Family control and financing decisions", European Financial Management, 17, (5), 860-897.

Daily, C.M. & Dollinger, M.J. (1991). "Family firms are different", Review of Business, 13 (1/2), 3-5.

Debicki, B.J., Curtis, F., Matherne III, Kellermanns, F.W. & Chrisman, J.J. (2009). "Family firm research in the new millennium: an overview of the who, the where, the what and the why", *Family Business Review*, 22 (2), 151-166.

Ding, H. & Pukthuanthong-Le, K. (2008). "Retained wealth and family firm IPO", USASBE 2008 Conference, January 10-13, San Antonio, Texas, 1-47.

Dreux IV, D.R. (1990). "Financing family businesses: Alternatives to selling out or going public". Family Business Review, 3, 225–243.

Durukan, M. (2006). "IPO underpricing and ownership structure: evidence from the Istanbul Stock Exchange". In Greg N. Gregoriou (Eds.). *Initial Public Offerings. An international perspective* (pp. 263-278). Elsevier, Burlington Mass.

Efron, B. (1982). "The jackknife, bootstrap, and other resampling plans", Society for industrial and Applied Mathematics monograph 38. CBMS-NSF.

Faccio, M & Lang, L.H.P. (2002). "The ultimate ownership of Western European corporations", *Journal of Financial Economics*, 65 (3), 365-395.

Farinós, J.E., García, C.J. & Ibáñez, A.M. (2007). "Operating and stock market performance of state-owned enterprise privatizations. The Spanish experience", *International Review of Financial Analysis*, 16, 367-389.

Gerald, K.C. & Sidney, J.G. (2002). "Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore", The International Journal of Accounting, 37, 247-265.

Gersick, K., Marion, J.D. & Lansberg, I. (1997). Generation to generation: Life cycles of family business, Boston: Massachusetts: Harvard Business School Press Books.

Gómez-Mejía, L.R., Campbell, J., Martin, G., Hosskison, R., Makri, M., & Sirmon, D. (2014). "Socioemotional wealth as a mixed gamble: Revisiting family firm R&D investments with the behavioral agency Model", Entrepreneurship Theory and Practice, 38(6), 1351–1374.

Habbershon, T.G. & Williams, M. (1999). "A resource-based framework for assessing the strategic advantages of family firms", Family Business Review 12 (1), 1-22.

Hearn, B. (2011). "The performance and the effects of family control in North African IPOs", *International Review of Financial Analysis*, 20, 140-151.

Ibbotson, R.G. (1975). "Price performance of common stock issues", *Journal of Financial Economics*, 2, 235-272.

James, A.E., Jennings, J.E. & Breitkreuz, R.S. (2012). "Worlds apart? Rebridging the distance between family science and family firm research", *Family Business Review*, 25 (1), 87-108.

Kowalewski, O., Talavera, O. & Stetsyuk, I. (2010). "Influence of family involvement in management and ownership on firm performance. Evidence from Poland", *Family Business Review*, 23, 45-59.

La Porta R., López de Silanes, F. & Shleifer, A. (1999). "Corporate ownership around the world", *The Journal of Finance* 54, (2), 471-517.

Leitterstorf, M.P. & Rau, S.B. (2014). "Socioemotional wealth and IPO underpricing of family firms", *Strategic Management Journal*, 35, 751–760.

Litz, R.A., Pearson, A.W. & Litchfield, S. (2012). "Charting the future of family firm research: perspectives from the field", *Family Business Review*, 25 (1), 16-32.

Ljungqvist, A. (2007). "IPO Underpricing". In Eckbo, B. (Eds.), *Handbook of Corporate Finance: Empirical Corporate Finance*, (Volume 1, Chapter 7, pp. 375-422). North-Holland, Oxford, UK: Elsevier BV.

Logue, D. (1973). "On the pricing of unseasoned equity issues: 1965-1969", Journal of Financial and Quantitative Analysis 8, 91-103.

Loughran, T., Ritter, J.R. & Rydqvist, K. (1994). "Initial public offerings: international insights", *Pacific-Basin Finance Journal*, 2: 168-199.

Loughran, T. & Ritter, J.R. (2002). "Why don't issuers get upset about leaving money on the table in IPOs?" Review of Financial Studies, 15, 413-443.

Lyman, A.R. (1991). "Customer service: Does family ownership make a difference?" Family Business Review, 4 (3), 303–324.

McConaughy, D.L., Walker, M., Henderson Jr., G.V. & Mishra, C.S. (1998). "Founding family controlled firms. Efficiency and value", Review of Financial Economics, 7 (1), 1-19.

McDonald, J.G. & Fisher, A.K. (1972). "New issue stock price behaviour", Journal of Finance 24, 97-102.

Megginson, W.L., Nash, R.C. & Randenborgh, M.V (1994). "The financial and operating performance of newly privatized firms: an international empirical analysis", *The Journal of Finance*, 49 (2), 403-452.

Moscetello, L. (1990). The Pitcairns want you, Family Business Magazine, February.

Mroczkowski, N.A. & Tanewski, G. (2005). "Initial returns performance: family and non-family firms-Australian evidence. *European Financial Management Association*", *EFMA Conference*, Milan, Italy, July 2005.

Muñoz-Bullón, F. & Sánchez-Bueno, M.J. (2011). "The impact of family involvement on the R&D intensity of publicly traded firms", *Family Business Review*, 24, 62–70.

Reilly, F K, (1973). "Further evidence on short-run results for new issue Investors", Journal of Financial and Quantitative Analysis 8, 83–90.

Ritter, J.R. (1984). "The Hot Issue Market of 1980", Journal of Business, 57, 215-240.

Ritter, J.R. (1987). "The costs of going public", Journal of Financial Economics, 19 (2), 269-281.

Ritter, J.R. (2003): "Differences between European and American IPO markets", European Financial Management, 9 (4), 421-434.

Rock, K. (1986). "Why new issues are underpriced", Journal of Financial Economics, 15, 187-212.

Sacristán, M. & Gómez, S. (2006). "Family ownership, corporate governance and firm value: evidence from the Spanish market". In Poutziouris, P.Z., Smyrnios, K.X. and Klein, S.B. (Eds.), *Handbook of Research on Family firm* (pp. 593-613). Northampton: Edward Elgar Publishing.

Schmid, M. & Jithendranathan, T. (2012). "Underpricing of IPOs of U.S. family controlled businesses", *International Research Journal of Finance and Economics*, 90, 193-206.

Shleifer, A. & Vishny, R. (1997). "A survey of corporate governance", Journal of Finance, 52 (2), 737-783.

Sirmon, D. G., & Hitt, M.A. (2003). "Managing resources: Linking unique resources, management and wealth creation in family firms", *Entrepreneurship Theory and Practice*, 27, 339-358.

Sraer, D. & Thesmar, D. (2007). "Performance and behavior of family firms: evidence from the French stock market", Journal of the European Economic Association, 5 (4), 709-751.

Steiger, T., Duller, C. & Hiebl, M.R.W. (2015). "No consensus in sight. An analysis of ten years of family firm definitions in empirical research studies", *Journal of Enterprising Culture*, 23, 36.

Stoll, H.R. & Curley A.J. (1970). "Small business and the new issues market for equities", *Journal of Financial and Quantitative Analysis* 5, 309-322.

Tagiuri, R. & Davis, J.A. (1992): "On the goals of successful family companies", Family Business Review 5, 43-62.

Villalonga, B. & Amit, R. (2006). "How do family ownership, control and management affect firm value?" *Journal of Financial Economics*, 80, 385-417.

Ward, J.L. (1997). "Growing the family business: Special challenges and best practices", Family Business Review, 10 (4), 323–337.

Ward, J. L., & Aronoff, C. E. (1991). "Trust gives you the advantage", Nation's Business, 79(8), 42-45.

Welch, I. (1989). "Seasoned offerings, imitation costs and the underpricing of initial public offerings", *Journal of Finance*, 44, 421-449.

Yu, A., Lumpkin, G.T. Sorenson, R.L. & Brigham, K.H. (2012). "The landscape of family firm outcomes: a summary and numerical taxonomy of dependent variables", *Family Business Review*, 25 (1), 35-57.

Yu, X. and Zheng, Y. (2012). "IPO underpricing to retain family control under concentrated ownership: evidence from Hong Kong", *Journal of Business Finance & Accounting*, 39, 700-729.

Zellweger, T.M., Eddleston, K.A. & Kellermanns, F.W. (2010). "Exploring the concept of familiness: Introducing family firm identity", *Journal of Family firm Strategy*, 1 (1), 54-63.