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RESEARCH NOTES AND COMMENTARIES

SOCIOEMOTIONAL WEALTH AND IPO UNDERPRICING OF FAMILY FIRMS

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Socioemotional wealth (SEW), i.e., the noneconomic utility a family derives from its ownership position in a firm, is the primary reference point for family firms. Family firms are willing to sacrifice economic gains in order to preserve their noneconomic utility. Thus, we argue that family firms sacrifice IPO proceeds by choosing higher IPO underpricing than nonfamily firms if underpricing helps them protect their SEW. Our empirical results, based on a sample of 153 German IPOs, support our hypothesis. On average, family firms have 10 percentage points more IPO underpricing than nonfamily firms.

INTRODUCTION

This paper addresses two research questions: First, what are families willing to pay to preserve their socioemotional wealth (SEW), i.e., the noneconomic utility a family derives from its ownership position in a firm (Gómez-Mejía *et al.*, 2007, 2011)? Second, how does SEW help explain the unresolved phenomenon of initial public offering (IPO) underpricing, i.e., the stock price increase from the issue price to a supposedly fair value at the end of the first trading day (Ljungqvist, 2007)? We propose possible answers to both of these closely related questions by analyzing theoretically and empirically the IPO underpricing of family firms.

Family firms, in which the person who established or acquired the firm or their families or descendants possess 25 percent of the decision-making rights (European Commission, 2009), have both economic and noneconomic goals (e.g., Chrisman, Chua, and Litz, 2004; Chrisman *et al.*, 2010). They are willing to sacrifice economic gains in order to preserve noneconomic utility (Chrisman and Patel, 2012) because SEW is their primary reference point (Gómez-Mejía *et al.*, 2007). Although SEW has already been used to explain empirical differences between family and nonfamily firms, the rate of substitution between economic utility and noneconomic utility has remained unclear (Chrisman, Chua, and Sharma, 2005).

For the purpose of this paper, we consider two important aspects of SEW. First, due to the identity overlap between family and firm (Dyer and Whetten, 2006), the firm's reputation directly impacts the reputation of the respective family members, in particular if the family name is part of the firm name. Hence, any damage to the firm's reputation also damages family reputation and thus SEW (Deephouse and Jaskiewicz, 2013). Second, a strong influence of family members relative to nonfamily stakeholders is the prerequisite for ensuring that firm decisions are aimed at protecting SEW.

Keywords: socioemotional wealth; behavioral agency model; family firm; IPO; underpricing
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We submit that an IPO is ideal to analyze the trade-off that families face concerning economic and noneconomic utility. It is a common economic goal of pre-IPO shareholders to sell shares at the highest possible price, but it may also serve noneconomic goals to sell shares below the highest possible price. Specifically, we identified several noneconomic advantages: IPO underpricing helps family firms protect reputation (Lowry and Shu, 2002) because, according to the "litigation risk hypothesis," IPO underpricing reduces the risk of lawsuits (Ibbotson, 1975) as well as, according to the "informational cascade," the risk of a failed IPO (Welch, 1992). In addition, according to the "ownership dispersion hypothesis," IPO underpricing allows family firms to reduce nonfamily ownership concentration (Booth and Chua, 1996; Brennan and Franks, 1997). Protecting the reputation and optimizing the shareholder structure are important aspects of SEW (Chrisman and Patel, 2012). Thus, family firms might willingly sell shares at a higher discount than nonfamily firms in order to preserve SEW. Consequently, IPO underpricing allows analyzing the trade-off between economic utility and noneconomic utility of family firms.

We examine a sample of 153 German IPOs between 2004 and 2011. Germany offers an active IPO market with a high number of family firms. Our results support our hypothesis that family firms have higher IPO underpricing than nonfamily firms. Our results are robust to varying definitions of family firms and to different definitions of IPO underpricing.

Our study offers several contributions. First, the additional discount at which families are willing to sell shares at the IPO serves as a first proxy for the costs of SEW preservation. Second, we contribute to the IPO underpricing literature (e.g., Ljungqvist, 2007) by offering a new explanation for differing degrees of IPO underpricing. Specifically, the willingness of family owners to sell shares at an increased discount could serve as a new explanation for the phenomenon of IPO underpricing.

THEORETICAL BACKGROUND AND HYPOTHESIS

SEW and the behavioral agency model prediction of SEW loss aversion

Strategic decisions of family firms are often influenced by the goal to preserve SEW. Family firms accept increased financial risks and a reduced long-term performance in order to protect SEW (Gómez-Mejía *et al.*, 2007). To protect SEW, family firms also pursue fewer socially or environmentally harmful activities than nonfamily firms (Berrone *et al.*, 2010), conduct more philanthropic activities (Deniz and Suarez, 2005), avoid downsizing (Stavrou, Kassinis, and Filotheou, 2007), implement more care-oriented contracts for nonfamily managers (Cruz, Gómez-Mejía, and Becerra, 2010), and diversify less if diversification makes it more difficult to place trusted family members in key positions (Jones, Makri, and Gómez-Mejía, 2008; Gómez-Mejía, Makri, and Larraza-Kintana, 2010). In all of these studies, SEW is not measured directly, but rather employed as a conceptual construct that explains strategic decisions of family firms (Zellweger *et al.*, 2012).

The decision to conduct an IPO might conflict with the goal of SEW preservation. An IPO potentially damages a family firm's SEW in the short term because an IPO most likely results in less influence of family shareholders relative to nonfamily shareholders. The increased influence of nonfamily shareholders potentially hinders the pursuit of a family's noneconomic goals such as exercising authority (Schulze, Lubatkin, and Dino, 2003) and conserving the family firm's social capital (Arregle *et al.*, 2007). However, family firms conduct IPOs in spite of the potential SEW damage. First, consistent with the idea of a rate of substitution between economic utility and noneconomic utility (Chrisman *et al.*, 2005), the economic utility related to raising additional growth capital might outweigh the noneconomic utility of remaining private. Second, although an IPO damages, at least to some extent, a family firm's SEW in the short term, an IPO might be the only option to preserve the family firm and the SEW in the long term. We thus argue that family firms facing this dilemma will try to minimize the threats of an IPO to their SEW.

At the IPO, family firms try to minimize the potential SEW losses caused by ceding control to nonfamily shareholders even if this means sacrificing potential gains related to selling shares. This behavior is due to their specific "loss aversion" and "problem framing" (Wiseman and Gómez-Mejía, 1998) and can be explained with the behavioral agency model (BAM; Cyert and March, 1963; Gómez-Mejía *et al.*, 2007; Wiseman and Gómez-Mejía, 1998). Loss aversion means that avoiding losses is more important than obtaining

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gains (Chrisman and Patel, 2012). Problem framing stresses that choices are evaluated regarding potential losses and gains compared to current utility (Gómez-Mejía *et al.*, 2010; Kahneman and Tversky, 1979). In the IPO context, family firms evaluate potential IPO outcomes compared to pre-IPO utility. Specifically, for most family firms, an IPO will decrease noneconomic utility because nonfamily shareholders gain importance but increase economic utility, because the firm raises additional capital and family members are able to better diversify personal wealth. This suggests that families will rather focus on minimizing the losses to their noneconomic utility than on maximizing the gains to their economic utility.

The unresolved phenomenon of IPO underpricing

IPO underpricing, i.e., the stock price increase on the first day of trading (e.g., Beatty and Ritter, 1986; Ljungqvist, 2007; Ritter and Welch, 2002), represents the discount to a fair value at which a firm's shares are sold. No complete answer has been found to the question why shares are sold at a discount to a supposedly fair value, although numerous possible explanations of the IPO underpricing phenomenon have been advanced (Loughran and Ritter, 2002). For a comprehensive review of IPO underpricing explanations, see Ljungqvist (2007).

The degree of underpricing can be actively influenced by pre-IPO shareholders because the IPO firm makes several decisions that impact underpricing: choosing the lead underwriter, deciding between a domestic or an international IPO, and choosing between different types of share offerings (Habib and Ljungqvist, 2001). Thus, pre-IPO shareholders are able to influence the degree of underpricing (Lowry and Shu, 2002).

Consistent with previous studies on IPO underpricing, we assume that managers and large pre-IPO shareholders are able to determine approximately the fair value of their shares, which is a necessary prerequisite to willingly sell shares below that fair value (Aggarwal, Krigman, and Womack, 2002). This argument is supported by the fact that IPO firms usually have professional advisors in the form of investment banks that help determine a fair value and offer price of shares. Thus, family firms are able to choose an offer price below the respective fair value of shares if this is in their interest.

SEW preservation by family firms at the time of the IPO

We identified several underpricing explanations related to the idea that IPO firms willingly accept IPO underpricing in exchange for certain advantages. For three underpricing explanations, we identified not only economic, but also noneconomic advantages: reduced ownership concentration according to the "ownership dispersion hypothesis" (Booth and Chua, 1996), reduced risk of lawsuits according to the "litigation risk hypothesis" (Ibbotson, 1975), and reduced risk of a failed IPO due to an "informational cascade" (Welch, 1992). We will link these explanations to the goal of SEW preservation.

According to the ownership dispersion hypothesis, IPO underpricing is willingly accepted by the issuer in order to generate an oversubscription for the IPO firm's shares because investors evaluate the potential for underpricing in the weeks before the IPO and adjust share subscriptions accordingly (Booth and Chua, 1996; for a description of the IPO process, see Certo, Holcomb, and Holmes, 2009: Appendix). Oversubscription occurs when investors request more shares than are offered, which results in rationing shares (Brennan and Franks, 1997). For example, if twice as many shares are demanded than offered, each investor gets on average only half of the shares ordered, which reduces ownership concentration among new shareholders. Although this argument originally referred to the economic goals of the firm's management (Brennan and Franks, 1997), the reduction of nonfamily ownership concentration is especially important for family firms in order to preserve SEW concerning the ability to exercise authority (Schulze *et al.*, 2003) and the preservation of the family dynasty (Casson, 1999). There is empirical evidence that pre-IPO shareholders are less likely to be ousted from the firm when shares are sold widely rather than to few large shareholders (Brennan and Franks, 1997). Thus, by setting low issue prices, families try to increase oversubscription and share rationing in order to maximize their ownership control relative to new post-IPO shareholders because this helps preserve their SEW.

Both the litigation risk hypothesis and the informational cascade imply that the higher the IPO underpricing, the lower the following risks. First, the litigation risk hypothesis proposes that the IPO firm benefits from underpricing because it reduces

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both the probability of a lawsuit and the damages that plaintiffs can recover (Ibbotson, 1975). The costs of IPO lawsuits include not only legal fees, but also reputational costs (Lowry and Shu, 2002). Second, according to the informational cascade (Welch, 1992), underpricing reduces the risk of a failed IPO because without the prospect of underpricing some investors might abstain from the IPO, and the lack of interest of these investors might cause other investors to also abstain from the IPO. Costs of a failed or withdrawn IPO include not only funds spent on road shows for marketing the IPO, but also reputational costs (Busaba, Benveniste, and Guo, 2001). Due to the identity overlap between family and firm (Dyer and Whetten, 2006), any damage to the firm's reputation also damages the reputation of family members (Deephouse and Jaskiewicz, 2013). Consequently, both lawsuits and failed IPOs pose serious threats to SEW. Thus, family firms are more determined than nonfamily firms to prevent IPO lawsuits or failed IPOs and accept higher IPO underpricing as a necessary price to pay.

The BAM predictions concerning SEW suggest that family firms are willing to sacrifice economic gains in order to minimize threats or losses to SEW. Specifically, the lower the issue price relative to an approximated fair value of shares (i.e., the higher the IPO underpricing), the better a family can minimize the threat of concentrated nonfamily ownership (ownership dispersion hypothesis) and the better a family can protect its reputation (litigation risk hypothesis and informational cascade). Thus, we expect that:

Hypothesis 1: Family firms have higher IPO underpricing than nonfamily firms.

METHODS

Sample

Our sample, which consists of German IPOs at the Frankfurt Stock Exchange, includes both family and nonfamily firms. Germany offers an active IPO market with a high number of family firms due to "German Mittelstand," often considered the backbone of the highly industrialized German economy (Fiss and Zajac, 2004). Until the 1990s, Germany was described as a less-developed financial market governed by different legal and institutional restrictions (Wasserfallen and Wittleder, 1994). Nevertheless, since the early 1990s pressure from international capital markets, the receding role of banks, and the adaptation of international accounting standards have moved Germany towards an Anglo-Saxon style economic model (Fiss and Zajac, 2004). Moreover, both in Germany and the United States, book building (setting a price range for the shares while discussing demand with potential investors during a road show; for further description, see Certo *et al.*, 2009) is the dominant process of selling IPO shares (Elston and Yang, 2010; Ljungqvist and Wilhelm, 2002; Ritter, 2003). In both countries, there are few constraints on how shares are allocated (Ljungqvist and Wilhelm, 2002). Thus, in case of oversubscription, family firms can allocate shares primarily to small retail investors, in order to further atomize nonfamily influence.

Consistent with previous IPO studies (e.g., Certo *et al.*, 2001), we analyze multiple years (2004–2011) with both low and high IPO volumes. We do not include any IPO prior to 2004 because previous studies reveal average underpricing of more than 70 percent during the Internet bubble, which could potentially distort the effects under consideration (Ljungqvist and Wilhelm, 2003). We consider only IPOs by domestic firms and exclude all foreign firm IPOs as well as transfers from other markets (Goergen, Khurshed, and Renneboog, 2009). Our final sample consists of 153 IPOs. All companies in our sample have only one class of shares. Companies are, on average, 25 years old and their market capitalization averages $\sim$400 million Euros.

We employ three data sources. First, the list of IPOs including information such as the date of the IPO and the offer price were obtained from Deutsche Börse, the owner and operator of the Frankfurt Stock Exchange. Second, daily stock closing prices from Deutsche Börse are complemented with Bloomberg data concerning delisted shares. Third, detailed information on each IPO firm, such as firm age, underwriters, and pre-IPO shareholder structure, were collected manually from each company's emission prospectus.

Variables

The dependent variable is underpricing, or first-day return, calculated as the first-day closing price minus the offer price, divided by the offer price (Beatty and Ritter, 1986; Ljungqvist, 2007; Ritter and Welch, 2002). We assume that the full

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extent of underpricing is already given at the end of the first trading day because the Frankfurt Stock Exchange has no restrictions on daily price fluctuations (Ljungqvist, 2007).

We define family firms as firms in which "the person who established or acquired the firm or their families or descendants possess 25 percent of the decision-making rights" (European Commission, 2009). Family firm status is treated as a dummy variable by assigning a value of 1 to family firms and a value of 0 to nonfamily firms.

We define "number of board appointments" as the sum of other firms in which one or more of the IPO firm's top management team (TMT) has a position on the management and/or supervisory board. Board members of other companies may provide advice on the IPO, and TMT members serving on other boards may better understand and be familiar with the IPO process (Arthurs *et al.*, 2008; Filatotchev and Bishop, 2002).

We define "overhang" as shares retained divided by shares offered (Dolvin and Jordan, 2008). Shareholders retaining the majority of shares may accept higher underpricing because a lower proportion of their overall wealth is at stake (Dolvin and Jordan, 2008).

The involvement of large underwriters may signal that the issue price is an accurate appraisal of a firm's value (Carter and Manaster, 1990). Market share is measured as the sum of the IPO values underwritten by each underwriter (within the sample) divided by the sum of all IPO values in the sample (Megginson and Weiss, 1991).

We control for firm size (natural logarithm of market capitalization at the offer price) and for firm age (natural logarithm of IPO year minus founding year plus one) (Ljungqvist and Wilhelm, 2003). Information tends to be more readily available about larger firms, which could reduce underpricing (Beatty and Ritter, 1986), but larger issues are harder to market, which could increase underpricing (Baron, 1982). Less-seasoned firms with fewer years of published financial data are less likely to have been assessed by financial analysts, which might influence firm valuations (Daily *et al.*, 2003). Venture capital backing is treated as a dummy variable (equal to 1 if venture capital firms own shares, 0 if otherwise) because a venture capitalist can fulfill a certification role (Megginson and Weiss, 1991).

Consistent with previous studies (e.g., Arthurs *et al.*, 2008), we control for industry effects by assigning a dummy variable equal to 1 for financial institutions (i.e., SIC codes from 6000 to 6900) and 0 for all other IPO firms, as the particularities of financial institutions could potentially impact underpricing. We control for effects of the IPO year because investors might be overly optimistic in years that are characterized by above-average underpricing and an unusually high number of IPOs (Filatotchev and Bishop, 2002). Thus, we assign a dummy variable equal to 1 for an IPO in 2006 (almost half of the IPOs in our sample occur in 2006) and 0 otherwise to account for overly optimistic investors. We observed no significant changes to our results after replacing the 2006 year dummy with any other year dummy.

RESULTS

Descriptive statistics and correlations appear in Table 1. Family firm status and underpricing are significantly ($p < 0.01$) and positively correlated. In addition, underpricing is also positively and significantly correlated with overhang ($p < 0.05$). Average underpricing of 6 percent is relatively low compared to findings from the UK (Filatotchev and Bishop, 2002) and the United States (Arthurs *et al.*, 2008), which might be due to the higher average age and the bigger average size of German IPOs (Ljungqvist, 1997).

Consistent with prior IPO underpricing literature, we examine the variance inflation factors in order to test for multicollinearity (Arthurs *et al.*, 2008). None of the variance inflation factors approaches the threshold of 10 (Filatotchev and Bishop, 2002); the highest one is below 3. These results suggest that multicollinearity is not a problem in our analysis.

Table 2 presents the results of the hierarchical regression analysis. Model 1 represents the control model without any variable related to family influence. Only overhang significantly and positively impacts underpricing ($p < 0.05$). As shown in Model 2, family firm status significantly and positively impacts underpricing ($p < 0.01$). Thus, we find empirical support for Hypothesis 1. All other variables being equal, family firms have on average 10 percentage points more underpricing than nonfamily firms.

Robustness of results

Family firm researchers often differentiate within the group of family firms between those with and

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Table 1. Descriptive statistics and correlations

Research variable	Mean	*S.D.*	1	2	3	4	5	6	7	8	9	10
1. Family firm status = 1	0.61	0.49	1.00									
2. Underpricing	0.06	0.15	0.24	1.00								
3. Number of board appointments	24.71	25.22	−0.36	−0.04	1.00							
4. Overhang	3.61	9.61	0.07	0.17	−0.09	1.00						
5. Underwriter market share	0.08	0.12	−0.29	0.04	0.32	−0.14	1.00					
6. Market capitalization (log value)	18.44	1.60	−0.32	0.10	0.41	−0.15	0.70	1.00				
7. Age (log value)	2.58	1.13	−0.21	0.03	0.26	−0.19	0.27	0.41	1.00			
8. Venture capital = 1	0.48	0.50	−0.51	−0.11	0.33	−0.06	0.23	0.12	0.11	1.00		
9. Financial institutions = 1	0.26	0.44	0.10	0.02	0.07	0.15	−0.13	−0.09	−0.24	−0.18	1.00	
10. IPO in 2006 = 1	0.44	0.50	0.13	−0.02	−0.05	0.08	−0.19	−0.22	−0.15	−0.03	0.01	1.00

$n = 153$.
Values greater than 0.16 (or lower than −0.16) are significant at $p < 0.05$; values greater than 0.21 (or lower than -0.21) are significant at $p < 0.01$.

without multiple family members involved as major owners or managers (Chrisman and Patel, 2012; Miller *et al.*, 2007). The involvement of multiple family members could potentially increase the families' overall SEW and thus the willingness to increase IPO underpricing. In addition, researchers also differentiate family firms with respect to the generation in charge of the firm (Chrisman and Patel, 2012; Miller *et al.*, 2007). The BAM suggests that over time attachment to the firm and thus SEW might change (Gómez-Mejía *et al.*, 2007; Wiseman and Gómez-Mejía, 1998). Based on the arguments above, we build on our previous hierarchical regression analysis and add Model 2A and Model 2B for a more differentiated analysis (Table 2). The differentiation within the group of family firms results in statistically significant coefficients for all subgroups. We also retested Model 2 in our hierarchical regression model with alternative family ownership thresholds of 10, 15, 20, and 30 percent. In addition, we employed a continuous family ownership variable (Astrachan, Klein, and Smyrnios, 2002; Klein,

Table 2. Hierarchical regression results

	Model 1		Model 2		Model 2A		Model 2B	
Constant	−0.22	(−1.04)	−0.41**	(−1.99)	−0.39*	(−1.85)	−0.38*	(−1.84)
Number of board appointments	0.00	(−0.62)	0.00	(−0.19)	0.00	(−0.24)	0.00	(−0.24)
Overhang	0.00**	(2.26)	0.00**	(2.37)	0.00**	(2.45)	0.00**	(2.44)
Underwriter market share	−0.02	(−0.11)	−0.02	(−0.14)	−0.01	(−0.04)	−0.01	(−0.04)
Market capitalization (log value)	0.02	(1.27)	0.02*	(1.80)	0.02	(1.63)	0.02	(1.63)
Age (log value)	0.00	(0.28)	0.01	(0.46)	0.01	(0.48)	0.01	(0.47)
Venture capital = 1	−0.03	(−1.07)	0.01	(0.49)	0.02	(0.68)	0.02	(0.67)
Financial institutions = 1	0.00	(−0.04)	0.00	(−0.07)	0.00	(0.16)	0.00	(0.16)
IPO in 2006 = 1	0.00	(−0.07)	−0.01	(−0.34)	−0.01	(−0.40)	−0.01	(−0.39)
Family firm status (FFS) = 1			0.10***	(3.41)				
FFS with multiple family members					0.13***	(3.65)		
FFS without multiple family members					0.08**	(2.59)	0.08**	(2.58)
FFS with multiple family members in first generation = 1							0.13***	(3.09)
FFS with multiple family members in second generation = 1							0.13***	(2.88)
R^2	0.06		0.13		0.14		0.14	
Adjusted R^2	0.01		0.08		0.08		0.08	
F	1.16		2.40**		2.37**		2.14**	

$n = 153$.
Underpricing is the dependent variable in all models; t−statistics are in parentheses.
***$p < 1\%$; **$p < 5\%$; *$p < 10\%$.

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Table 3. Model 2 differentiated by closing prices

Day of closing price	Model 2 coefficients for FFS = 1	
1st closing price	0.10***	(3.41)
5th closing price (one week)	0.09***	(2.69)
10th closing price (two weeks)	0.11**	(2.59)
15th closing price (three weeks)	0.13**	(2.51)
20th closing price (four weeks)	0.12**	(2.15)

$n = 153$.
Underpricing is the dependent variable in all models; $t-$statistics are in parentheses. FFS = family firm status.
***$p < 1\%$; **$p < 5\%$; *$p < 10\%$.

Astrachan, and Smyrnios, 2005). We found strong support for Hypothesis 1 for all of the above definitions of family firms and for all of the above subgroups of family firms.

Last but not least, calculating IPO underpricing with respect to the closing price on the first day of trading is based on the assumption of market efficiency (Thaler, 1997, 2005). In less than perfectly efficient markets, the fair value of a stock might be determined at some point during the first weeks of trading (Ljungqvist, 2007). We thus recalculated Model 2 with closing prices on the 5th day, the 10th day, the 15th day, and the 20th day of trading (Brennan and Franks, 1997; Ellul and Pagano, 2006) (Table 3). Family firm status (FFS = 1) significantly and positively impacts IPO underpricing for all days of trading tested. Thus, we consider our results to be robust with respect to different closing prices in the first month of trading after the IPO.

DISCUSSION AND CONCLUSION

This paper explores the relationship between family firm status and IPO underpricing. We assess whether family firms accept higher IPO underpricing than nonfamily firms in order to preserve their SEW. The BAM predicts that family firms' loss aversion with respect to SEW strongly impacts strategic decisions of family firms (Gómez-Mejía *et al.*, 2007; Wiseman and Gómez-Mejía, 1998). We contribute to this discussion with the analysis whether share pricing at the IPO is another strategic decision impacted by SEW loss aversion.

Higher underpricing helps family firms preserve their SEW because it reduces the risk of lawsuits (Ibbotson, 1975), minimizes the risk of a failed IPO (Welch, 1992), and allows atomizing external share ownership (Booth and Chua, 1996). Consequently, family firms sacrifice, at least partly, their economic gains, i.e., issue proceeds at the IPO, in order to protect their SEW. The amount of additional underpricing associated with family firm status represents the costs of preserving SEW at the IPO. So far, there is no other proxy for measuring these costs. Specifically, at the time of the IPO, family firms pay, on average, 10 percent of their shares' value to preserve their SEW.

In the family firm literature, the so-called family firm heterogeneity debate stresses that subgroups of family firms differ significantly from each other (Chrisman and Patel, 2012). However, we find empirical support that all subgroups tested have significantly higher IPO underpricing than nonfamily firms. Thus, although family firms are often heterogeneous, they appear rather homogenous with respect to IPO underpricing. Consequently, all types of family firms cause or accept higher IPO underpricing in order to protect their SEW.

Concerning the IPO underpricing phenomenon, we offer a new explanation focusing on noneconomic goals. Although the variance in IPO underpricing explained by our models is rather modest, as is the case in most IPO underpricing studies (e.g., Certo *et al.*, 2001), we increase the explained variance from an adjusted R^2 of 0.01 to 0.08 by adding the variable of family firm status. Although we do not completely solve the IPO underpricing puzzle, we contribute to the understanding of this phenomenon by creating the "family firm SEW hypothesis on IPO underpricing."

Our results have practical implications to both investors and family firms. Uninformed IPO investors, i.e., investors that cannot assess whether an individual IPO is underpriced and invest equal amounts of money into each IPO (Ljungqvist, 2007; Rock, 1986) might benefit from the simple rule of thumb to invest in family firm IPOs rather than nonfamily firm IPOs. Family firms planning IPOs need to be aware of the possibility that higher IPO underpricing might help them protect their SEW. Each family firm needs to determine the economic sacrifices family members are willing to make and find a consensus among family members. At the IPO, family firms might decide to sell a smaller proportion of shares and to sell additional

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shares after the IPO in order to minimize the costs of SEW preservation.

These conclusions should be considered in light of potential alternative explanations for the link between family firm status and IPO underpricing. For instance, it appears possible that investment banks might take advantage of families that are financially less apt. Family firms in our sample have, on average, board members with fewer board positions in other firms and less backing by venture capital firms. However, we find support for Hypothesis 1 even after controlling for the possibility that low financial sophistication might make family firms victims of overly aggressive investment banks that desire higher underpricing.

Future research should apply our approach to more active capital markets such as the United States and to different institutional settings such as Asia. Long-term effects of an IPO on a family firm's SEW need to be analyzed in more depth. Similar to previous studies, we assumed a link between family ownership and SEW because SEW is a conceptual construct that has not yet been measured directly (Zellweger *et al.*, 2012). Family firm researchers need to develop and validate an instrument for measuring SEW.

Gómez-Mejía *et al.* (2007) argue that SEW is the primary reference point for family firms. Consequently, family firms are willing to sacrifice economic gains in order to preserve noneconomic utility. The empirical evidence we present not only supports this argument, but also offers a first proxy for the costs of preserving SEW at the time of the IPO.

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REFERENCES

Aggarwal RK, Krigman L, Womack KL. 2002. Strategic IPO underpricing, information mo-mentum, and lockup expiration selling. *Journal of Financial Economics* **66**(1): 105–137.

Arregle J-L, Hitt M, Sirmon D, Very P. 2007. The development of organizational social capital: attributes of family firms. *Journal of Management Studies* **44**(1): 73–95.

Arthurs JD, Hoskisson RE, Busenitz LW, Johnson RA. 2008. Managerial agents watching other agents: multiple agency conflicts regarding underpricing in IPO firms. *Academy of Management Journal* **51**(2): 277–294.

Astrachan JH, Klein SB, Smyrnios KX. 2002. The F-PEC scale of family influence: a proposal for solving the family business definition problem. *Family Business Review* **15**(1): 45–58.

Baron DP. 1982. A model of the demand for investment banking advising and distribution services for new issues. *Journal of Finance* **37**(4): 955–976.

Beatty RP, Ritter JR. 1986. Investment banking, reputation, and the underpricing of initial public offerings. *Journal of Financial Economics* **15**(1-2): 213–232.

Berrone P, Cruz C, Gómez-Mejía LR, Larraza-Kintana M. 2010. Socioemotional wealth and corporate responses to institutional pressures: do family-controlled firms pollute less? *Administrative Science Quarterly* **55**(1): 82–113.

Booth JR, Chua L. 1996. Ownership dispersion, costly information, and IPO underpricing. *Journal of Financial Economics* **41**(2): 291–310.

Brennan MJ, Franks J. 1997. Underpricing, ownership and control in initial public offerings of equity securities in the UK. *Journal of Financial Economics* **45**(3): 391–413.

Busaba WY, Benveniste LM, Guo RJ. 2001. The option to withdraw IPOs during the premarket: empirical analysis. *Journal of Financial Economics* **60**(1): 73–102.

Carter R, Manaster S. 1990. Initial public offerings and underwriter reputation. *Journal of Finance* **45**(4): 1045–1067.

Casson M. 1999. The economics of family firms. *Scandinavian Economic History Review* **47**(1): 10–23.

Certo ST, Covin JG, Daily CM, Dalton DR. 2001. Wealth and the effects of founder management among IPO-state new ventures. *Strategic Management Journal* **22**(6/7): 641–658.

Certo ST, Holcomb TR, Holmes RM. 2009. IPO research in management and entrepreneur-ship: moving the agenda forward. *Journal of Management* **35**(6): 1340–1378.

Chrisman JJ, Chua JH, Litz RA. 2004. Comparing the agency costs of family and non-family firms: conceptual issues and exploratory evidence. *Entrepreneurship Theory & Practice* **28**(4): 335–354.

Chrisman JJ, Chua JH, Pearson AW, Barnett T. 2010. Family involvement, family influence, and family-centered non-economic goals in small firms. *Entrepreneurship Theory & Practice* **34**(5): 1–27.

Chrisman JJ, Chua JH, Sharma P. 2005. Trends and directions in the development of a strategic management theory of the family firm. *Entrepreneurship Theory & Practice* **29**(5): 555–575.

Chrisman JJ, Patel PC. 2012. Variations in R&D investments of family and non-family firms:

behavioral agency and myopic loss aversion perspectives. *Academy of Management Journal* **55**(4): 976–997.

Cruz C, Gómez-Mejía LR, Becerra M. 2010. Perceptions of benevolence and the design of agency contracts: CEO-TMT relationships in family firms. *Academy of Management Journal* **53**(1): 69–89.

Cyert RM, March JG. 1963. *A Behavioral Theory of the Firm* (2nd edn). Prentice-Hall: Englewood Cliffs, NJ. Blackwell: Malden, MA.

Daily CM, Certo ST, Dalton DR, Roengpitya R. 2003. IPO underpricing: a meta-analysis and research synthesis. *Entrepreneurship Theory & Practice* **27**(3): 271–295.

Deephouse DL, Jaskiewicz P. 2013. Do family firms have better reputations than non-familiy firms? An integration of socioemotional wealth and social identity theories. *Journal of Management Studies* **50**(3): 337–360. DOI: 10.1111/joms.12015.

Deniz D, Suarez K. 2005. Corporate social responsibility and family business in Spain. *Journal of Business Ethics* **56**(1): 27–41.

Dolvin SD, Jordan BD. 2008. Underpricing, overhang, and the cost of going public to preexisting shareholders. *Journal of Business Finance & Accounting* **35**(3/4): 434–458.

Dyer WG, Whetten DA. 2006. Family firms and social responsibility: preliminary evidence from the S&P 500. *Entrepreneurship Theory & Practice* **30**(6): 785–802.

Ellul A, Pagano M. 2006. IPO underpricing and after-market liquidity. *Review of Financial Studies* **19**(2): 381–421.

Elston JA, Yang JJ. 2010. Venture capital, ownership structure, accounting standards and IPO underpricing: evidence from Germany. *Journal of Economics and Business* **62**(6): 517–536.

European Commission. 2009. Overview of family–business–relevant issues: research, networks, policy measures and existing studies. Available at: http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/family-business/family_business_expert_group_report _en.pdf (accessed 24 January 2012).

Filatotchev I, Bishop K. 2002. Board composition, share ownership, and 'underpricing' of U.K. IPO firms. *Strategic Management Journal* **23**(10): 941–955.

Fiss PC, Zajac EJ. 2004. The diffusion of ideas over contested terrain: the (non)adoption of a shareholder value orientation among German firms. *Administrative Science Quarterly* **49**(4): 501–534.

Goergen M, Khurshed A, Renneboog L. 2009. Why are the French so different from the Germans? Underpricing of IPOs on the Euro New Markets. *International Review of Law and Economics* **29**(3): 260–271.

Gómez-Mejía LR, Cruz C, Berrone P, De Castro J. 2011. The bind that ties: socioemotional wealth preservation in family firms. *Academy of Management Annals* **5**(1): 653–707.

Gómez-Mejía LR, Haynes K, Nuñez-Nickel M, Jacobson K, Moyano-Fuentes F. 2007. Socioemotional wealth and business risks in family controlled firms. *Administrative Science Quarterly* **52**(1): 106–137.

Gómez-Mejía LR, Makri M, Larraza-Kintana M. 2010. Diversification decisions in family-controlled firms. *Journal of Management Studies* **47**(2): 223–252.

Habib MA, Ljungqvist AP. 2001. Underpricing and entrepreneurial wealth losses in IPOs: theory and evidence. *Review of Financial Studies* **14**(2): 433–458.

Ibbotson RG. 1975. Price performance of common stock new issues. *Journal of Financial Economics* **2**(3): 235–272.

Jones CD, Makri M, Gómez-Mejía LR. 2008. Affiliate directors and perceived risk bearing in publicly traded, family-controlled firms: the case of diversification. *Entrepreneurship Theory & Practice* **32**(6): 1007–1026.

Kahneman D, Tversky A. 1979. Prospect theory: an analysis of decision under risk. *Econometrica* **47**(2): 263–292.

Klein SB, Astrachan JH, Smyrnios KX. 2005. The F-PEC scale of family influence: construction, validation, and further implication for theory. *Entrepreneurship Theory & Practice* **29**(3): 321–339.

Ljungqvist AP. 1997. Pricing initial public offerings: further evidence from Germany. *European Economic Review* **41**: 1309–1320.

Ljungqvist AP. 2007. IPO underpricing. In *Handbook in Corporate Finance: Empirical Corporate Finance*, Eckbo BE (ed). Elsevier: Amsterdam, The Netherlands, 375–422.

Ljungqvist AP, Wilhelm WJ. 2002. IPO allocations: discriminatory or discretionary? *Journal of Financial Economics* **65**: 167–201.

Ljungqvist AP, Wilhelm WJ. 2003. IPO pricing in the dot-com bubble. *Journal of Finance* **58**(2): 723–752.

Loughran T, Ritter JR. 2002. Why don't issuers get upset about leaving money on the table in IPOs? *Review of Financial Studies* **15**(2): 413–443.

Lowry M, Shu S. 2002. Litigation risk and IPO underpricing. *Journal of Financial Economics* **65**(3): 309–335.

Megginson W, Weiss K. 1991. Venture capitalist certification in initial public offerings. *Journal of Finance* **46**(3): 879–903.

Miller D, Le Breton-Miller I, Lester RH, Cannella AA Jr. 2007. Are family firms really superior performers? *Journal of Corporate Finance* **13**(5): 829–858.

Ritter JR. 2003. Differences between European and American IPO markets. *European Financial Management* **9**(4): 421–434.

Ritter JR, Welch I. 2002. A review of IPO activity, pricing and allocations. *Journal of Finance* **57**(4): 1795–1828.

Rock K. 1986. Why new issues are underpriced. *Journal of Financial Economics* **15**(1/2): 187–212.

Schulze WS, Lubatkin MH, Dino RN. 2003. Toward a theory of agency and altruism in family firms. *Journal of Business Venturing* **18**(4): 473–490.

Stavrou E, Kassinis G, Filotheou A. 2007. Downsizing and stakeholder orientation among the Fortune 500: does family ownership matter? *Journal of Business Ethics* **72**(2): 149–162.

Thaler RH. 1997. *Advances in Behavioral Finance I*. Russell Sage Foundation: New York.

Thaler RH. 2005. *Advances in Behavioral Finance II*. Russell Sage Foundation: New York.
Wasserfallen W, Wittleder C. 1994. Pricing initial public offerings: evidence from Germany. *European Economic Review* **38**: 1505–1517.
Welch I. 1992. Sequential sales, learning, and cascades. *Journal of Finance* **47**(2): 695–732.
Wiseman RM, Gómez-Mejía LR. 1998. A behavioral agency model of managerial risk taking. *Academy of Management Review* **23**(1): 133–153.
Zellweger T, Kellermanns FW, Chrisman JJ, Chua JH. 2012. Family control and family firm valuation by family CEOs: the importance of intentions for transgenerational control. *Organization Science* **23**(3): 851–868.

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