# CRISIS AND FINANCIAL DISTRESS. FAMILY VS. NON-FAMILY FIRMS

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Abstract. The prediction of a company's status of financial distress has been a challenging issue for financial accounting studies for decades. Quantitative and qualitative information affects a company's likelihood of incurring in financial distress and there is a need to study how the peculiarities of family firms affect their probability of financial distress. We address this topic by studying a sample of 1,137 Italian private firms for the period 2004-2013 in order to include the pre and post financial crisis periods. We analyze family firms' financial distress likelihood taking into account some board and CEO characteristics, different measures of risk, some accounting variables and some macroeconomic indicators. We find that these variables have different significance in the family than non-family firms, and we argue that it is due to the main reference point in family firms' behavior, i.e. the preservation of the affective returns that the family derives from the business.

**Keywords:** financial distress; family firms; socioemotional wealth; board; family CEO.

### Introduction

The prediction of a company's financial distress status has been a challenging issue for financial accounting studies for decades. The pioneering studies of Beaver (1966), Altman (1968, 2000) and Altman, Haldeman, and Narayanan (1977) provide models based on accounting ratios in order to individuate which of a firm's characteristics would provide an effective alarm for financial distress. More recently, even qualitative information related to board members' ownership and insider holding (Chen & Du, 2009) has been taken into account. There is evidence that corporate governance characteristics significantly affect a company's likelihood of incurring financial distress and that weak corporate governance significantly enhances this probability (Lee & Yeh, 2004). The literature claims that family firms' system of corporate governance is a relevant source of competitive advantage (Carney, 2005). Family business literature has widely addressed the issue of performance, comparing family and non-family businesses. It provides conflicting results (Morck, Shleifer & Vishny, 1988; Anderson & Reeb, 2003; Simoes Vieira, 2014), confirming that family firms are not a homogeneous group (Corbetta

& Salvato, 2004) and that they differ in relation to their generational stage, board characteristics and CEO type (Barontini & Caprio, 2006; Villalonga & Amit, 2006; Bennedsen & Nielsen, 2010; Gottardo & Moisello, 2015). Literature also has addressed the issue of family firms' risk taking, pointing out that they are risk averse (Naldi et al., 2007; Huybrechts Voordeckers & Lybaert, 2013), as they pursue durability in the long run (Tagiuri & Davis 1992), but that they are prone to taking performance hazard when the family's control is at risk, in order to preserve the non-financial returns that family members obtain through the business (Gomez-Mejia, et al., 2007). There is also evidence that they are more levered than non-family firms (Croci, Doukas & Gonenc, 2011, Gottardo & Moisello, 2014, 2016). Given the importance and dissemination of family businesses in economies around the world (Faccio & Lang, 2002; Villalonga & Amit, 2006) there is a need to study how the above-mentioned peculiarities affect a family firm's probability of financial distress.

Wilson Wright and Scholes (2013) have addressed the issue of family businesses' likelihood of failure by analyzing a large sample of UK companies for the period 2007-2010. They point out that family firms have a higher survival probability than non-family businesses. Thus, it is interesting to develop this rather unexplored topic, analyzing family firms' probability of financial distress, which could be a harbinger of a firm's ultimate failure.

We address this topic by studying a sample of 1,137 Italian private firms for the period 2004-2013 in order to include the pre- and post-financial crisis periods. We analyze family firms' financial distress likelihood taking into account certain board and CEO characteristics, different measures of risk, a set of accounting variables and a series of macroeconomic indicators. We find that family ownership control, and influence by the means of a family CEO, reduces a firm's probability to run into financial distress. However, the effect is reversed when numerous family members have a seat on the board. We argue that this reverse effect is due to the main reference point in family firms' behavior, i.e. the preservation of the affective returns that the family derives from the business.

This paper is grounded on the socioemotional wealth (SEW) framework, one that relates to the non-financial returns a family obtains by exerting its control and influence on the business (Gomez-Mejia et al., 2007). In so doing, we contribute to socioemotional wealth literature, providing empirical evidence of this perspective. Moreover, we contribute to financial accounting literature on financial distress probability by focusing on family firms. The remainder of the paper is organized as follows: section 1 introduces the theoretical background; section 2 presents the data and research methodology; section 3 provides the results and discussion and section 4 concludes.

### Theoretical background

According to the socioemotional wealth perspective, family businesses' uniqueness resides in having nonfinancial, as well as financial, objectives i.e. the preservation of family members' affective endowment in the firm they own (Gomez-Mejia et al.,

2007). It is based on the Behavioral Agency Model which claims that decision makers act in order to avoid losses (Wiseman & Gomez-Mejia, 1998). SEW literature points out that family firms behave in order to preserve and increase the stock of affect-related value that the owning family derives from the business. Socioemotional wealth utility affects family owners' value perceptions and they subjectively evaluate their ownership stake in monetary terms, unlike a market valuation based only on financial information (Zellweger & Astrachan, 2008).

There is evidence that the preservation of this value is the main reference point for family firms' strategies, management processes, risk-taking behavior (Gomez-Mejia et al., 2007; Gomez-Mejia et al., 2011), diversification and financing decisions (Gomez-Mejia, Makri & Kintana, 2010; Gottardo & Moisello, 2014), proactive stakeholder engagement and environmental management (Cennamo et al., 2012; Berrone, Gomez-Mejia & Larraza-Kintana, 2010) and voluntary disclosure behavior (Gavana, Gottardo & Moisello, 2016, 2017).

According to SEW theoretical literature (Berrone et al., 2012; Gomez-Mejia et al., 2011), a family's affective endowments in the firm are related to five main dimensions: family control and influence; family members' identification with the firm; binding social ties; the emotional attachment of family members, dynastic succession. The family control itself provides emotional returns to family members and, through it, a family can protect the affective values it derives from the business in terms of influence, sense of identification, social ties, and renewal of family bonds to the business for succeeding generations (Gottardo & Moisello, 2014). Therefore, the preservation of family control of the business is the main concern for family members because it is the means of exerting its influence on the firm and derive the related non-financial returns that meet family members' emotional needs (Berrone et al., 2012; Gomez-Mejia et al., 2010). The desire to maintain family control is the reference point in addressing business risk. Family firms address risk in order to avoid losses of socioemotional wealth and, in so doing, they are both risk willing and risk adverse.

Gomez-Mejia et al. (2007), in their pioneer study, point out that family firms avoid entrepreneurial risk, because bankruptcy would result in the loss of the family's economic and non-economic stocks invested in the business. On the other hand, they are willing to bear performance risk - that in extreme consequences can lead to bankruptcy and definitive loss of SEW - in order to preserve family control as it is a key source of emotional returns for family members (Gomez Mejia et al., 2007). This apparent paradox is due to the fact that family decision-makers think that performance hazard is an endogenous risk that can be managed (Gomez-Mejia et al., 2007). Lins, Volpin, and Wagner (2013) find that, in the period 2008-2009, during the financial crisis, family firms cut investment more compared to nonfamily businesses, and these cuts are related to greater underperformance. Therefore, the authors argue that families behave in order to increase the likelihood that the firm they own, and family control on the business, survive the crisis, at the expense of outside shareholders. Families avoid financing decisions which may put at risk family control or dilute their control stakes and family's influence, so they are more prone to endure the risks related to debt financing than non-family businesses (Gottardo & Moisello, 2014, 2016).

Family influence may be indirectly exerted, by appointing the board, or directly by the means of a family CEO and/or the presence of family members on the board. A family CEO is a key mechanism for retaining control over the company's assets and activity (Chua, Chrisman & Sharma, 1999) because, compared to a non-family CEO, this provides the family with more control over operations and decisions (Hall & Nordqvist, 2008). There is evidence that family CEOs are less prone to bear entrepreneurial risk than professional CEOs, but that the latter tend to assume lower venturing risk as their tenure increases and they develop stronger links with the owning family (Huybrechts et al., 2012).

Family members see the business as an extension of the family as they feel a keen sense of identification with the company they own (Berrone et al., 2012) and they are aware that the way a firm behaves may affect the family image, therefore they act in order to protect the firm's reputation (Deephouse & Jaskiewicz, 2013). A company's financial distress and risk of ultimate failure would damage the owning family's reputation. The sense of identification is stronger when a family directly exerts its influence on the business, by the means of a family CEO, (Gavana et al., 2017), enhancing the concern for the firm's reputation and image (Dyer & Whetten, 2006). Conversely, this sense of identification tends to decrease in a firm's later generational stages when different family branches are involved in the business and pursue different interests (Gomez-Meija et al., 2011). Empirical literature suggests that a family-based organizational image positively affects a family business' ability to increase sales (Craig et al., 2008) and it positively contributes to a firm's performance (Zellweger, Kellermanns, Eddleston & Memili, 2012). As a matter of fact, family firms' commitment to constructing a good reputation may result in the better development of partnerships (Arya & Salk, 2006) and the capability to attract high-quality employees (Connelly, Certo, Ireland & Reutzel, 2011).

The bonds between a firm and its internal and external stakeholders constitute a unique form of social capital for family firms (Sirmon & Hitt, 2003) and they are strongly committed to its preservation; in fact, there is evidence that family business is particularly concerned with social and environmental problems (Berrone et al., 2010; Cennamo et al., 2012). In response to their commitment to the community, family businesses receive loyalty and support from their stakeholders (Niehm, Swinney & Miller, 2008). These close social ties on the one hand meet the family members' affective needs for belonging and also develop the family's influence in the local community at large, on the other hand these bonds benefit the business in term of the availability of "timely and trustworthy information critical for business operations", business opportunities and funding (Zellweger et al., 2012) and help the company cope with periods of crisis. There is empirical evidence that family firms benefit from lower cost of debt financing than non-family firms due to the relationships they develop with lenders across time and generations (Anderson, Mansi & Reeb, 2003) and creditors may be more prone to reschedule credit maturities in case of trading difficulties (Wilson et al., 2013). Consistently, D'Aurizio, Oliviero and Romano (2015) find significant evidence that the contraction in credit for family firms was smaller than that for non-family firms during the 2007-2009 financial crisis.

The preservation of the business for the future generations is the last dimension of socioemotional wealth (Berrone et al., 2012). Dynastic succession is the means to preserve family control of the business and a family's visibility, reputation and influence in the community over time. Families manage the firm as a long-term investment (Chami, 1999) and they avoid risky strategies in order to pass on a healthy business to future generations and perpetuate the business and family control over time. Moreover, the preservation of the family dynasty in the business implies the perpetuation of the family's values through business operations (Debicki, Van de Graaff Randolph & Sobczak, 2017) and, in turn, the presence of ethics norms reinforces the development of social capital, and, in turn, performance (Sorenson, Goodpaster, Hedberg & Yu, 2009).

Research question: How does a family's indirect or direct influence affect a business' probability of financial distress?

### Data and methods

We collected data from the Aida database (Bureau van Dijk) for the period 2004-2013 to examine the above issue and test the related research question. In order to be included, a firm needed to respect four conditions: availability of at least four years of data; sales over €40 million in at least one year; a non-financial ATECO code; be a private firm. The final sample comprises 1137 firms, 138 are the firms which, in the period analyzed, entered a financial distress procedure (restructuring, voluntary liquidation, insolvency or a composition with creditors). The dependent variable is a dummy that takes value one if in a given year, a firm is in distress. The literature is not unanimous about what constitutes a family firm (e.g. Chua, Chrisman & Sharma, 1999) but we identify them using an ownership threshold, considering a firm to be a family business if a family holds more than 50% of its equity. We also consider two proxies to account for the degree of control and influence that families exert on the business, namely a dummy for the presence of a family CEO, and a measure of the number of family members as a fraction of those who sit on the board.

From financial accounts, we extract information on Size (natural log of Assets), Interest Coverage, Cash Flow, Duration of Receivables, Stock Turnover, Current Ratio and Leverage (Debt/Equity), as a measure of financial risk. We also control for differences in financial risk using the sector Beta, and, for the macroeconomic situation, take into account the yearly changes in GDP ( $\Delta$ GDP) and in the availability of bank lending ( $\Delta$ Loans).

To verify the impact of family control and influence on the likelihood of ending up in financial distress, we estimate a panel logistic model using the availability of firm-specific time-varying covariates over multiple periods, covering the recent recession in 2007-2010.

We follow Shumway (2001) and Nam et al. (2008) estimating a duration independent model where the individual hazard rate for each firm is independent of a particular point in time. The multi-period logit model takes the form:

$$P(y_{i,t} = 1 | x_{i,t}) = h(t | x_{i,t}) = \frac{1}{1 + e^{-x_{i,t}\beta}}$$

where the  $x_{i,t}$  are the time-varying independent variables.

### Results and discussion

Table 1 presents descriptive statistics for the subsamples of family and non-family firms, distinguishing firms in healthy condition and in financial distress.

Table 1. Summary statistics of firm characteristics for family and non-family firms

	Family Firms		Non-Family Firms	
	Healthy	In distress	Healthy	In distress
	Mean (Stdev)	Mean (Stdev)	Mean (Stdev)	Mean (Stdev)
Size	17.61 (2.52)	10.93 (1.04)	17.67 (2.61)	10.52 (1.31)
Leverage	1.04 (2.43)	2.20 (11.66)	0.90 (5.41)	3.10 (8.82)
Interest	24.34 (51.19)	4.77 (19.53)	24.77 (51.04)	5.41 (17.94)
coverage				
Cash Flow	0.02 (0.27)	-0.16 (0.36)	0.00 (0.30)	-0.10 (1.63)
Receiv.	88.88 (52.26)	114.20 (113.53)	86.71 (86.00)	125.49(136.95)
duration				
Stock	62.45 (48.70)	88.73 (74.81)	56.04 (61.17)	77.15 (82.99)
turnover				
Current test	1.53 (0.86)	1.07 (0.56)	1.44 (0.80)	1.21 (0.98)
Beta	0.77 (0.26)	0.80 (0.23)	0.85 (0.31)	0.87 (0.29)
Family CEO	0.70 (0.46)	0.82 (0.38)	-	-
MultiFboard	0.51 (0.34)	0.71 (0.31)	-	-

In Table 2 we present the estimates of the panel logit model for the overall sample and for the family and non-family subsamples.

Table 2. Duration independent hazard model with time varying covariates.

Period 2004-2013

1 01100 2001 2015							
	All Firms	Family Firms	Non-Family Firms				
	Coeff.(p-value)	Coeff.(p-value)	Coeff.(p-value)				
Intercept	13.97 (.001)	13.46 (.001)	18.12 (.001)				
Independent							
Variables							
Size	-1.25 (.001)	-1.19 (.001)	-1.63 (.001)				
Leverage	0.07 (.033)	0.01 (.809)	0.13 (.005)				
Interest	-0.05 (.001)	-0.03 (.002)	-0.05 (.001)				
coverage							
Cash Flow	-0.12 (.161)	-11.79 (.001)	-0.14 (.239)				
Receiv.	0.01 (.001)	0.01 (.001)	0.01 (.005)				
duration							

Stock turnover	0.01 (.001)	0.01 (.001)	0.00 (.014)
Current ratio	-0.46 (.002)	-0.75 (.001)	-0.21 (.326)
Beta	0.02 (.949)	-0.35 (.393)	0.46 (.241)
ΔGDP	0.04 (.262)	0.11 (.077)	-0.03 (.623)
ΔLoans	-0.02 (.152)	0.01 (.691)	-0.03 (.288)
Family	-0.61 (.002)	-	-
Family CEO	-0.55 (.013)	-1.02 (.001)	-
MultiFboard	1.92 (.001)	1.91 (.001)	-
Log-Likelihood	-580.32	-300.23	-233.23
Wald-test	404.58	257.23	150.57
N (Obs.)	6,032	3,747	2,438

Our results suggest that a family's indirect and direct influence on the business has a significant lowering effect on a firm's probability of financial distress. Our research, focused on a sample of firms operating in a bank-based economy, is consistent with the findings provided by Wilson et al. (2013) for a sample of companies operating in a market-based economy, providing evidence that the nature of family businesses has, ultimately, a strong influence on a firm's survival capability, regardless of the characteristics of the economy in which it operates. Moreover, our findings suggest that, overall, a firm's likelihood of financial distress is more significantly related to the nature of the ultimate controlling owner and its direct influence on the business, rather than to the economic situation of the country in which the company operates, in terms of changes in gross domestic product and availability of bank lending.

Consistent with previous literature, we find that another firm characteristic, such as size, has a significant effect in lowering a company's probability of financial distress, but that the effect is lower for family firms. As a matter of fact, larger firms can rely on significant capital requirements barriers, which has a positive effect on performance (Hall & Weiss, 1967). Size enhances a firm's visibility and the concern for financial distress impacts on a family's reputation (Gavana et al., 2016), but, at the same time, size is a socioemotional wealth moderator (Gomez-Mejia et al., 2011). As a firm grows a family may have to share its influence on the company with other parties, experiencing a lower sense of identification and deriving a lower emotional return from the business, which may result in opportunistic behavior and in a lower venturing risk aversion (Wasserman, 2006).

Family firms, although more levered than their non-family counterparts, are more skilled at managing debt financing, as non-family firms' financing distress probability is significantly affected by leverage. This is probably due to the different role of debt financing in family and non-family firms. Family firms are not prone to open their capital outside the family and they use debt financing in order to maintain family control over the business and preserve their socioemotional wealth (Gottardo & Moisello, 2014, 2016).

Families protect the control of the business as they view the firm as a long-term investment to be passed to future generations through dynastic succession

(Berrone, 2010, 2012) and, for the same reason they are risk adverse. Further, as our results suggest, they tend to invest in industries characterized by lower beta than non-family companies. The intention for trans-generational control, and long-term orientation, develops a strong relationship with both internal and external stakeholders and among those debt financiers who are more likely to be willing to grant credit facilities to family businesses. These connections also provide operational utilities to family firms in terms of customer acquisition (Arregle, Hitt, Sirmon & Very, 2007) and the reduction of costs related to complex cooperative relationship management (Mohr & Puck, 2013): consistently, we find that cash flow has a significant effect in lowering the financial distress probability only for family firms. On the contrary, the strong ties with customers may have a negative effect on the likelihood of survival when they result in excessive payment delays, as shown by the effect of credit duration on family firms' probability of financial distress.

Our findings suggest that when a family exerts its influence directly, by appointing a family CEO, the concern for the protection of the socioemotional wealth is higher and reduces the probability of financial distress. When a firm is led by a family CEO, the sense of identification between the family and the business is higher and, in turn, the concern for the reputational drawbacks an owning family would suffer in case of financial distress or failure of the business, increases. In this case, a family would also lose the emotional returns provided by the business in terms of its social relationship with internal and external stakeholders.

Conversely, our results point out that firms with larger boards, with numerous family members, suffer a higher probability of financial distress. This board characteristic is generally related to firms later generational stages (Westhead Howorth & Cowling, 2002) in which the family members sitting on boards belong to different family branches and pursue the expectations and needs of their particular nuclear family. In later generational stages the sense of identification between the owning family and the business declines, the non-financial objectives are less relevant, and short-term earnings strategies can overpower the long-term survival goal (Gomez-Mejia et al., 2007; Gomez-Mejia et al., 2011; Le Breton-Miller & Miller, 2013), putting the company's health at risk. These results are, therefore, consistent with the empirical studies of Arrondo-Gracia and colleagues (2016) pointing out that, during the 2008 global crisis, family firms in different generational stages presented different attitudes towards financial risk (Arrondo-Garcia, Fernández-Méndez & Menéndez-Requejo, 2016).

#### **Conclusions**

This paper studies the effect of families' indirect and direct influence on a firm financial distress probability, analyzing a sample of 1,137 Italian private firms for the period 2004-2013. Overall, our results suggest that a business' family nature benefits a company's survival likelihood regardless of the structural and conjunctural characteristic of the economy in which it operates. The beneficial effect of family influence is stronger when it is exerted by means of a family CEO as it implies a higher emotional return from the business for the family, which would

decrease or fade away, respectively, in case of financial distress or bankruptcy. We find the opposite effect when family influence is explicated by the presence of numerous family members on large boards.

This paper addresses family firms' financial distress probability, focusing on the effect of family control and influence dimension. However, other SEW dimensions would also be of interest. It would be useful to broaden the analyses by taking into consideration, in the regression model, family ties with internal and external stakeholders. Moreover, given that the attitude to release company control varies from country to country (Franks et al., 2009), further research may usefully focus on a cross-national sample in order to better control for the effect of different institutional and cultural settings on a family firm's probability of financial distress.

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