BEHAVIOR OF FAMILY FIRMS IN FINANCIAL CRISIS: CASH EXTRACTION OR FINANCIAL SUPPORT?

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Abstract

In this study we show that family owners of public corporations have greater incentive to preserve the continuity of the firms during financial crisis relative to short-term oriented parties in widely held public corporations. In this regard, we show that during financial crisis family firms report higher performance, experience more financial support from their shareholders, report lower investment cuts, greater level of cash and have lower leverage ratios, relative to non-family firms. These findings are in line with predictions of socioemotional wealth, because show that family owners have greater incentive to retain control over the firm and to preserve the continuity of their firms during financial crisis relative to short-term oriented parties.

Keywords: Family Ownership, Financial Performance, Private Control Benefits
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1. INTRODUCTION

Over the last decade, the increasing literature on family firms, although failing to obtain unambiguous empirical evidence, has found, non-occasionally and in different settings, confirmation for an over-performance of family controlled firms as compared with non-family firms (see, e.g., Anderson and Reeb, 2003; McConaughy, et al., 2001; Sraer and Thesmar, 2010). This is in contrast with the traditional view that family ownership concentration is inefficient because it is at the origin of private benefits extraction (see, Johnson, La Porta et al., 2000; Dyck and Zingales, 2004). If available empirical evidence, on the one hand, does not allow confirmation of a general over-performance of family firms, on the other hand, there is enough to become aware that private benefits extraction cannot be the only explanation of the large diffusion of family firms all around the world, and that the family firm model presents distinctive and specific behaviors and resources that are not fully explained by the traditional theories of the firms.

For this reason, there is a growing interest in theoretical models explaining the specificities of behaviors of family firms, like the approach to type II (or principal-principal) agency conflicts (Villalonga and Amit, 2006; Young, Peng et al., 2008; Teijvers and Voordeckers, 2009), asymmetric altruism (Schulze et al., 2001 and 2003), stewardship (Corbetta and Salvato, 2004; Miller and Le Breton-Miller, 2006), socioemotional wealth (Gomez-Meija et al., 2007; Berrone et al., 2012) and idiosyncratic private benefits (Tiscini, 2008; Tiscini and Raoli, 2013).

In this context, the long period of global financial and economic crisis, felt with varying intensities since 2007, is a unique laboratory to observe specificities in the behavior of family firms in difficult times. Similarly, many projects have tried to capture the effect of ownership concentration in general, and characteristics of family firms in particular, during the Asian financial crisis that began in 1997. They find confirmation of higher incentives to agency conflicts and minorities expropriation (Lemmon and Lins, 2003; Wei and Zhang, 2008; Joh, 2003), a causal correlation between performance and ownership structure (Chang, 2003), a positive incentive effect of large shareholders' cash flow rights, although also a negative entrenchment effect of a larger wedge between cash flow rights and control rights (Claessens et al. 2002), and a positive correlation between accounting performance and ownership concentration (Joh, 2003; Wiwattanakantang, 2001). In fact, East Asia is an interesting institutional context because of both weak investor protection (La Porta et al. 2000) and the strong relations between the State and large families (Steier, 2009). This second characteristic, in our opinion, generates noisy effects when observing behaviors of family firms, because the decisional processes of the family are not only influenced by the relation between the family and the firm, but also by their relation with the State (or, more generally, political powers).

The global financial crisis allows researchers to expand their studies to a wider institutional context and to refer them to different institutional settings. In particular, we aim at studying the specific behaviors of family controlled firms during the

recent economic and financial crisis (2008-2010), taking into account the settings where the behavioral specificities of the family model are likely to be amplified. The crisis can create higher incentives for the family to extract private benefits at the expense of minority shareholders, to compensate for the decline in cash flow generation, thus exacerbating the minorities' expropriation and conflicts of interest (Lins et al. 2013). In a prolonged crisis, however, competitive selection puts the entire existence of many firms at risk. This creates incentives to focus strongly on survival strategies because this will bring, as a consequence, a stronger competitive position. Lacking the support of an expanding market trend and of the consequent rich cash flow generation, these strategies need to be supported by additional resources (in terms of managerial effort as well as in terms of financial capital).

We argue that family controlled firms have specific reactions to crises because of their investors' incentives and investment horizon. During financial turmoil, diversified investors in a dispersed ownership company simply prefer to exercise their exit option and reallocate their portfolio overweighing lower risk investments (less risky businesses, non-equity investments, valuable commodities), thus leaving firms with relatively low financial resources. Similarly, professional managers do not have incentive to increase their managerial efforts, to take additional risks and to lower their compensation to ease the company overcome the crisis. On the contrary, controlling shareholders in family controlled firms cannot, and/or do not want to, behave like a shareholder in a dispersed ownership company, thus they react in different ways (Huybrechts et al., 2013).

We posit that the reaction to financial turmoil depends on the decisional investment horizon of the investor. In the case of a relatively short-term investment horizon, the controlling shareholders have incentive to take on opportunistic behaviors, increasing the magnitude of private benefits extraction and minorities expropriation to sustain their total benefits, thus compensating for the decline in cash flow generation. In the case of a long-term investment horizon, instead, the controlling shareholders cannot take on opportunistic behaviors, because they would increase the scarcity of financial resources and the likelihood of a firm's bankruptcy in the short term, thus reducing the total expected benefits in the long term. To maximize the total expected benefits in the long term, instead, family-controlling shareholders will then have incentive to maximize their efforts in supporting the company, both with financial resources and with managerial effort.

According to the literature, family controlling owners have longer decisional investment horizons (Zellweger, 2007; Kappes and Schmid, 2013; Sharma et al., 2014; Brigham et al., 2014) as compared with both non-family controlling owners and minority investors. Family controlling owners can count on their continuous involvement in the firm and they wish to pass the baton to future generations (Le Breton-Miller and Miller, 2009), whose economic comfort depends on the survival and on the competitiveness of the company in the long run. As a consequence, we argue that during the financial crisis family firms have received stronger financial support from their controlling owners as compared to non-family firms, leading to a higher accounting performance and a lower net indebtedness. We define financial support as the incremental financial resources family controlling owners provide to their firm in order to overcome any threats the firm may face (like the recent financial crisis).

We show that, during the financial crisis, family firms had better accounting performance. We also show that, during the crisis, family firms: (i) don't experience incremental investment cuts, consistently with additional support; (ii) experience additional financial support from the family, measured as net cash flow from shareholders.

This study draws on existing theories and contributes to the literature on family firms in a twofold way. First, it provides a complete picture of a behavioral approach of family controlling owners in prolonged and intense financial crises (the financial support approach). Second, it finds a first empirical evidence of this, referring to the Italian setting, which is a unique experimental setting both for its propensity to family ownership and for the intensity of the financial crisis.

The remainder of this paper is organized as follows: the following section reviews the literature and develops the hypotheses; section 3 explains the sample selection, provides descriptive statistics on the variables of interest and discusses the empirical methods. Section 4 discloses the results and describes several robustness tests on the findings. Section 5 discusses the results and concludes.

2. BACKGROUND AND THEORETICAL FRAMEWORK

This study aims at giving theoretical and empirical evidence regarding the behavior of family controlled firms during prolonged periods of financial crisis. We define it as the "entrepreneurial financial support" proposition, or "EFS" for short.

The EFS proposition is consistent with the relevant body of literature about family firms. It is firstly consistent with the traditional alignment hypothesis (Jensen, Meckling, 1976), according to which the interests of the controlling owner and managers are naturally aligned with the other shareholders' interests of firm value maximization. It is apparently challenged by the type II (principal-principal) agency problem approach (see, e.g., Claessens et al., 2002; Johnson et al. 2000; Villalonga and Amit, 2006), according to which the controlling shareholders expropriate minority shareholders. But, on closer inspection, in the case of family firms there is no contrast with the type II agency conflict because the family-controlling owner, to continue extracting private benefits at the expense of minority shareholders, should first make the firm survive the crisis and the increased competitive pressures. Then, the proposition of higher financial support from the controlling owners is not incompatible with the type II agency problem approach.

Similar arguments have led us to observe that in countries with weak legal protection, together with the evidence of tunneling (Johnson et al., 2000), there is, in conditions of financial crisis and increased default risk, also evidence of propping, which is negative tunneling (Friedman et al., 2003),

basically explained by the transitory need to allow high levels of indebtedness for the survival of the firm.

The EFS proposition is even compatible with the asymmetric altruism approach (Schulze et al., 2001; 2003), because nepotism and biased parental perception, which are seen as the origin of self control and specific agency costs, still need the survival of the firm to be put in place. More importantly, the EFS proposition is perfectly explained by a more positive view to altruism in family firms, as determining the willingness to experience short-term deprivation for long-term firm survival (Carney, 2005).

Further, the EFS proposition is consistent with the idiosyncratic private benefits approach (Pacces, 2009; Tiscini, 2008), which identifies the reason for concentrated family ownership as the need to protect the long-term potential economic benefits of family specific resources (long-term horizon, entrepreneurial effort, network of relationships, etc.) available to the firm only if control is in the family's hands, but not contributable to shareholders' capital (Tiscini and Raoli, 2013). Increased financial support in periods of crisis allows the preservation of the "hidden" stock of these family specific resources.

Finally, the EFS proposition is fully explained by the socioemotional wealth model (Gomez-Meija et al., 2007; Berrone et al., 2012) that, in the stream of behavioral theories, is nourishing an increasing field of literature on family firms, showing that family firms are different from other organizations in the main decisional criteria adopted by their managers or controlling owners. In particular, family owners extract socioemotional benefits (authority, need for belonging, affect and intimacy, perpetuation of family values, conservation of a firm's social capital, etc.) from the firm and consequently have non-economic incentives to preserve them through the long-term survival of the firm. Family owners are characterized by an increased risk appetite in turbulent times, which explains their additional financial support.

Building on these last two theoretical frameworks, our research propositions assume that, in a setting where the firm and its shareholders are not protected from competition and are not linked with strong relations to an institutional power (i.e. the State), controlling family owners react to economic and financial crisis by behaving in order to preserve the potential value of the idiosyncratic private benefits and the value of socioemotional benefits, thus maximizing their support for the company, from both an entrepreneurial and a financial point of view. Furthermore, family shareholders, given their longer-term investment horizon, are more willing to consider long-term future returns as the reward of short-term financial support.

This is not the case for non-family firms and their shareholders, whose behavioral incentives are more importantly driven by short-term value creation opportunities, which are typically weakened in times of crisis, generating a disincentive to supporting the firm. For instance, the minority investor will disinvest if the profitability is not satisfactory; professional managers will look for alternative opportunities if their compensation is reduced because of weaker performance.

In particular, as further explained below, we argue that during the financial crisis, family firms, as compared to non-family firms:

HP1. Suffer lower reduction in accounting performance;

HP2. Experience lower investment cuts;

HP3. Experience greater financial support from their shareholders.

The expected results, consistent with the main theoretical explanation for family firms, confirm some early empirical evidence available on the behavior of family firms during the global financial crisis (Masulis et al. 2011), but are partially contradictory to other evidence, both specifically referring to family firms (Lins, et al. 2013), and in general, mostly on investments (Kuppuswamy and Villalonga, 2010; Campello et al., 2012).

The expected lower reduction in accounting performance is explained by the persistent and increased effort of family controlling owners, both managing the firms directly and supporting the firms financially, and indirectly selecting professional managers and monitoring efficiency levels, but also by the sense of belonging and trust that the presence of the family generates in the culture of the firm (Berrone et al., 2012), and that reflects on stakeholders' relations. Accounting performance measures capture the real performance of the company better than market performance measures, because in periods of crisis stock market prices are depressed by the climate of distrust and family companies are excessively penalized by their smaller size, the thinner market of their floating shares and the higher information asymmetries (partially due to weaker relations with big investors).

The expected lower investment cut of family firms is explained by the longer time horizon of business decisions and by the related incentive to avoid losing the main source of benefits for the family (i.e. the firm), even if this implies a transitory reduction in the free cash flow for shareholders. A longer time horizon simply means extending the number and the total amount of expected returns of the investment.

Similarly, the incentive to avoid losing the main source of benefits suggests also that family firms, as compared to non-family firms, make financial choices aimed at reducing the risk of default. Indeed, non-family investors can easily reallocate their portfolio and professional managers can always look for different employers; however, a controlling family, in the case of the firm's default, cannot easily create another firm able to generate the same total benefits for them. This creates an additional incentive for family controlling owners to financially support the firm, by a reduction in dividends payments or by new equity contributions, both resulting in the increase in financial resources for the firm.

The following paragraphs illustrate the sample, the model and the results of our empirical analysis.

3. MODEL AND DATA

3.1. Sample

In order to conduct our study on the behavior of family firms in times of financial crisis, we use a sample of publicly traded Italian firms. The choice is

motivated by the simultaneous presence in Italy of a high propensity to family ownership and also high intensity of the financial crisis, which make the setting particularly suitable for the empirical testing of our hypotheses.

For several reasons, Italy provides a unique institutional environment to examine the role of family ties in EFS decisions. Italy is widely considered a country with weak legal protection for minority shareholders and creditors and poorly functioning capital markets (Zingales, 1994; La Porta et. al., 1999). As a consequence, concentrated ownership by blockholders and families is commonplace. In particular, 60% of our sample firms are classified as family controlled, since a single family owns the highest percentage of outstanding voting shares, with a minimum threshold of the 30% of voting rights. Additionally, previous relevant studies have also relied on the uniqueness of the Italian context to examine family business characteristics[38].

Moreover, for the aim of this study, the particular intensity of the financial crisis in Italy and the high degree of country risk emphasizes the predicted effects of our hypotheses, making the Italian setting a unique laboratory to study the behavioral reactions of family controlling owners to a prolonged financial crisis.

We start constructing the sample by identifying all listed companies on the Italian Stock Exchange during the years from 2006 to 2010. From this group we exclude financial firms, as well as bank holding companies and insurance companies, given the different nature of their financial statement and the regulatory environment in which they operate. Thus, we collected data from 221 non-financial Italian firms listed during the period 2006-2010. This sample was reduced during some tests, given the data requirements discussed below.

We classify the years from 2008 to 2010 as years of financial crisis; hence, the remaining years (2006-2007) are years of non-crisis. This consideration is due to the evidence that in Italy the crisis started in 2008, as opposed to the United States where the crisis started in August 2007. Operationally, we implement the definition of years of crisis by creating a dummy variable equal to 1 for the years from 2008 to 2010, and to 0 for the years 2006 and 2007.

The remainder of this section discusses our variables of interest, control covariates, as well as the empirical specifications used to test our hypotheses.

3.2. Ownership of Family Firms

In order to examine the effects of family ownership on family EFS decisions, we use a variable to empirically measure the percentage of ownership by a family at the firm level. In constructing this measure, we adopt a family ownership classification scheme similar to that utilized by Minichilli et al. (2010) and Prencipe et al. (2008) in which we identify family controlled companies as firms in which the dominant family has a concrete form of controlling power. More specifically, we classified a listed company as having family controlling ownership when the dominant family holds (directly or indirectly[39]) the highest percentage of voting rights when compared to all other relevant shareholders listed by Consob[40], with more than 30% of voting rights. In order to determine family ownership, we personally examined the firms' Consob filings and the two stock market yearbooks[41] for the period 2006-2010. Operationally, we implement the definition of family control with a dummy variable , which takes a value of 1 if a dominant family directly controls the firm and 0 if not. Therefore, we create a dummy variable for non-family firms as well. This variable takes on a value of 1 when the firm is not controlled by a family, and 0 when the firm is a family business.

Our sample contains about 60% of family controlled firms, which is in line with the 59% found in the Faccio and Lang (2002) study.

Table 1 provides a preview of the summary descriptive statistics for the variables we use in the analysis for the whole period (2006-2010).

The average family ownership concentration, not tabulated in table 1, is about 38%.

3.3. Performance Measure and other Control Variables

To measure firm performance, we examine the industry-adjusted return on assets (ROA). The industry-adjusted return on assets (Var: Accounting Performance) is calculated as net income scaled by the book value of total assets, minus the industry ROA. The choice of relying on accounting performance, rather than on stock market performance, is due to the fact that in a country with underdeveloped capital markets, stock return is a noisy measure of firm performance (Volpin, 2002). Furthermore, during a financial crisis, accounting performance measures capture the real performance of the company better than market performance measures, because in crisis periods, stock market prices are depressed by a climate of distrust and family companies are excessively penalized by their smaller size, the thinner market of their floating shares and the higher information asymmetries (partially due to weaker relations with big investors).

We also control for other firm characteristics by including additional covariates. To control for firm growth opportunities, we use the market to book ratio, defined as the sum of the book value of debt plus market value of equity divided by the firm's total assets. We also include the following variables: Cash, which represents the total amount of liquidity of the company *i* at year *t*; Current Liabilities, which represents the total amount of liabilities which expire in year *t+1*; Beta, which is the unlevered beta of the company *i* at year *t*.

[38] *see, e.g., Corbetta and Montemerlo, 1999; Brunello et al., 2001; Volpin, 2002; Brunello et al., 2003; Prencipe et al., 2008; Barrios and Macciocchi, 2013; Ali et al. 2007; Cascino et al. 2010; Mustakallio et al., 2002; Sciascia and Mazzola, 2008; Fiori et al., 2014.*

[39] *For indirect control we mean that a firm is controlled by another firm which is family owned. We hand collectd all the informations in this regard to really classify a firm as family controlled, and to make our sample of firms robust.*

[40] *CONSOB is the Italian SEC equivalent and has the list of all the relevant shareholders for the publicly traded Italian companies.*

[41] *"Calepino dell'azionista" and "Taccuino dell'azionista".*

Table 1. Descriptive Statistics for the Variables used in the Analysis

This Table reports the means, the medians, the standard deviations, the 1st quartile and the 3rd quartile of the distribution of industry-adjusted ROA and the other explanatory variables used in the analysis. We report descriptive statistics for the whole sample (family firms and non-family firms). Variables are winsorized at 1% and 99% level. Variables are described in the Appendix.

Panel A: the whole sample

	Mean	Standard Deviations	1st Quartile	Median	3rd Quartile
Industry-adjusted ROA	0.009	0.112	-0.010	0.020	0.050
Log Total Assets	13.053	1.785	11.879	12.739	14.125
Market to Book Value	0.167	0.140	0.055	0.134	0.249
Leverage	0.927	0.225	0.989	0.996	0.998
Current Liabilities	1115293	4123266	53912	134222	454439
Beta	1.302	5.509	0.002	0.026	0.195
Net Cash Flow from Shareholders	10.525	1.839	9.449	10.480	11.658
Capex/Total Assets	0.047	0.116	0.021	0.042	0.074

Panel B: family firms sub-sample

	Mean	Standard Deviations	1st Quartile	Median	3rd Quartile
Industry-adjusted ROA	0.012	0.115	-0.010	0.020	0.060
Log Total Assets	12.908	1.701	11.752	12.641	14.029
Market to Book Value	0.164	0.139	0.054	0.133	0.237
Leverage	0.919	0.243	0.989	0.996	0.998
Current Liabilities	792743	3234244	52396	117819	386122
Beta	1.689	6.484	0.002	0.029	0.297
Net Cash Flow from Shareholders	10.335	1.682	9.384	10.336	11.316
Capex/Total Assets	0.042	0.107	0.019	0.040	0.066

Panel C: non-family firms sub-sample

	Mean	Standard Deviations	1st Quartile	Median	3rd Quartile
Industry-adjusted ROA	0.002	0.105	-0.010	0.020	0.050
Log Total Assets	13.373	1.921	12.258	13.181	14.177
Market to Book Value	0.172	0.144	0.056	0.140	0.276
Leverage	0.946	0.178	0.991	0.996	0.998
Current Liabilities	1822120	5538279	58369	185415	607149
Beta	0.414	1.549	0.002	0.020	0.100
Net Cash Flow from Shareholders	10.886	2.063	9.576	10.765	12.002
Capex/Total Assets	0.059	0.134	0.025	0.047	0.092

Finally, we control for the size of the firm by including the natural log of total assets in our tests. All of our accounting and financial covariates have been winsorized at the 1% and 99% levels to reduce the effects of outliers.

Table 2 replicates the general summary statistics presented in table 1, but only for the years of crisis (from 2008 to 2010), and shows the variables of interest for the full sample (Panel A), as well as for the sub-samples of family firms (Panel B), and non-family firms (Panel C). The table displays the difference in the levels of performance of firms in panels B and C, showing that the mean of industry-adjusted Return on Assets, -.016 in the non-family firms sub-sample is smaller than the -.001 of the family firms sub-sample.

Finally, table 3 (panel A and B) shows the significance of the mean differences between family and non-family firms performance.

The results show a significant difference in accounting performance between the two classes of firms for both the crisis period (2008-2010) and the whole period considered here (2006-2010). These findings represent preliminary evidence that, on average, family firms perform better than non-family firms, even in periods of crisis.

Table 2. Descriptive Statistics for the Variables used in the Analysis. Financial Crisis period (2008-2010)

This Table reports the means, the medians, the standard deviations, the 1st quartile and the 3rd quartile of the distribution of industry-adjusted ROA and the other explanatory variables used in the analysis. The sample here is reduced to the years of the financial crisis (2008-2010). We report descriptive statistics for the whole sample (family firms and non-family firms). Variables are winsorized at 1% and 99% level. Variables are described in the Appendix.

Panel A: the whole sample

	Mean	Standard Deviations	1st Quartile	Median	3rd Quartile
Industry-adjusted ROA	-0.003	0.113	-0.030	0.010	0.040
Log Total Assets	13.078	1.763	11.921	12.742	14.097
Market to Book Value	0.168	0.145	0.051	0.132	0.262
Leverage	0.925	0.231	0.992	0.997	0.999
Current Liabilities	1125848	4228966	59566	148195	468085
Beta	1.088	5.819	0.002	0.019	0.098
Net Cash Flow from Shareholders	10.510	1.905	9.370	10.415	11.661
Capex/Total Assets	0.039	0.119	0.020	0.039	0.067

Panel B: family firms sub-sample

	Mean	Standard Deviations	1st Quartile	Median	3rd Quartile
Industry-adjusted ROA	0.001	0.111	-0.030	0.010	0.040
Log Total Assets	12.847	1.609	11.768	12.618	13.901
Market to Book Value	0.169	0.143	0.048	0.134	0.262
Leverage	0.917	0.246	0.992	0.997	0.999
Current Liabilities	597185	2659530	55713	119833	378516
Beta	1.457	7.005	0.002	0.020	0.122
Net Cash Flow from Shareholders	10.262	1.723	9.273	10.234	11.316
Capex/Total Assets	0.035	0.115	0.016	0.038	0.061

Panel C: non-family firms sub-sample

	Mean	Standard Deviations	1st Quartile	Median	3rd Quartile
Industry-adjusted ROA	-0.010	0.118	-0.020	0.010	0.040
Log Total Assets	13.550	1.964	12.347	13.264	14.972
Market to Book Value	0.168	0.148	0.052	0.126	0.265
Leverage	0.942	0.194	0.992	0.997	0.999
Current Liabilities	2197977	6180799	86010	221274	908510
Beta	0.318	1.140	0.002	0.014	0.068
Net Cash Flow from Shareholders	10.943	2.126	9.586	10.875	12.132
Capex/Total Assets	0.048	0.128	0.024	0.042	0.087

Table 3. Difference in Means

This table compares the industry adjusted Return on Asset of family firms and non-family firms. In order to test for the significance of the difference between the means, we performed a T-test. The Null Hypothesis is that the means are the same. T-values significance levels: * p < 0.10; ** p < 0.05; *** p < 0.01.

Panel A: Years from 2006 to 2010

Variable	Family Firms	Non Family Firms	Difference family - Non Family Firms	T-test
Industry-Adjusted ROA	.014 (.003)	-.004 (.005)	-.018	-3.283***

Panel B: Years from 2008 to 2010 (Crisis)

Variable	Family Firms	Non Family Firms	Difference family - Non Family Firms	T-test
Industry-Adjusted ROA	.002 (.004)	-.017 (.006)	-.019	-2.641***

3.4. The Empirical Specification and dependent variables

The empirical analysis is made up of three main parts. The first aim of this study is to contribute to the main issue about firm financial performance and family ownership, emprirircally testing the relation referring to our sample. In order to test whether family firms perform better than non-family firms, we run the following regression:

$$Performance_{i,t} = \alpha_i + \beta_1(Family\ Firms\ dummy_{i,t}) + \beta_2(Blockholder\ dummy_{i,t}) + \beta_3(Non\text{-}family\ firms\ dummy_{i,t}) + \beta_4(Log\ Total\ Assets_{i,t}) + \beta_5(Market\ to\ Book_{i,t}) + \beta_6(Leverege_{i,t}) + \beta_7(Current\ Liabilities_{i,t}) + \beta_8(Beta_{i,t}) + \varepsilon_{i,t} \quad (1)$$

The second and third aims of this research project are to investigate whether family firms, as compared to non-family firms, during financial crises: (i) experience any additional investment cuts during financial crises (second part); or (ii) if they are incrementally financially supported by their controlling family. We use interaction variables of family and non-family firm dummies multiplied by the dummy of crisis in order to capture the effect of the financial crisis on our variables of interest (Capex and Cash-Flow from Shareholders).

Consequently, the dependent variables we use to test for entrepreneurial and financial support in family and non-family firms are Capex and Net Cash Flow from Shareholders.

For Capex of firm *i* at year *t* we mean the capital expenditure used by a company to acquire or upgrade physical assets such as equipment, property, or industrial buildings. Capex is calculated as the difference of fixed assets of firm *i* at year *t* and at year *t-1*, minus depreciation of firm *i* at year *t*.

Net cash flow from shareholders represents the financial support from shareholders, and it is calculated as equity of firm *i* at year *t* minus net income (including other comprehensive income) of firm *i* at year *t,* minus equity of firm *i* at year *t-1*.

We report the coefficients and standard errors in parentheses for each of our variables in the test, to help with the interpretation of the relations found.

4. RESULTS

4.1. Performance of firms during financial crisis

The first aim of this study is to test whether family owned companies perform better than non-family firms during financial crisis. Even though this issue is still controversial in non-crisis years, we predict higher performance for family firms in years of crisis because the family's incentives for continuity, the consequent family commitment for survival and the specific family's competences in the business should allow the firm to face the threat of the financial crisis better.

Table 4. The Effect of Financial Crisis on Firm Performance in Family and Non-Family Firms

This table reports the results of the regressions that examine the effect of financial crisis on firm perfoemance in family and non family firms, from 2006 to 2010. Model 1 reports results for the whole sample, Model 2 reports results for the years of financial crisis (2008-2010). The dependent variable is industry-adjusted Return on Assets. The table reports the coefficients and the standard errors in parentheses. The standard errors are clustered at firm level. Coefficients' significance: * p < 0.10; ** p < 0.05; *** p < 0.01. All Variables are defined in the Appendix.

Variable	*Full Sample (1)*	*Crisis Period (2)*
Intercept	.008	-.069
	(.086)	(.119)
Family Firms	.037*	.049*
	(.021)	(.029)
Blockholder-dominated Firms	.016	.013
	(.023)	(.031)
Market to Book ratio	-.043	-.013
	(.077)	(.080)
Log Total Assets	.000	.005
	(.006)	(.008)
Leverage	-.026	-.038
	(.020)	(.029)
Current Liabilities	.000	-.000
	(.000)	(.000)
Beta	.001	.002*
	(.001)	(.001)
Observations	587	346
R-squared	.0223	.0422

Table 4 reports results for the model about the relation between ownership and accounting performance. The dependent variable is industry-adjusted Return on Assets (ROA). We control for industry as well as company fixed effects, and we cluster the standard errors by firm to adjust for heterogeneity in the residuals. Model 1 reports results for the whole sample of years/observations (the years from 2006 to 2010), while Model 2 reports results for the crisis sub-sample (the years from 2008 to 2010).

We find that family ownership is positively and significantly related to industry-adjusted ROA in both Model 1 and Model 2. We include in the analysis family firms dummy, as well as non-family firms dummy and blockholder-controlled firms dummy. We define a blockholder-controlled firm as a firm in which there is a majority shareholder that is not a family (i.e. common fund, pension fund, etc.) and has direct control of the firm. As a consequence, the blockholder-controlled firms dummy takes the value of 1 for firms controlled by an institutional (non family) blockholder, and otherwise it takes the

value of 0. We also decided to include the control for blockholder companies in order to test whether differences between family and non-family firms are due to the higher ownership concentration of family-controlled companies, rather than their specific characteristics explaining the entrepreneurial and financial support from the family.

In Model 1, family firms are positively related to accounting performance with a coefficient of .037 (significant at the 10% level), and also in Model 2 (the years of crisis sub-sample) the coefficient for the family firms-accounting performance relation is positive (.049) and significant at the 10% level. In both Models the blockholder-controlled firms dummy is not significantly related to our performance measure. These findings do not allow us to argue a reduction of non-family firms performance in years of crisis, but they allow us to confirm the hypothesis that family firms perform better than non-family firms during periods of financial crisis. Furthermore, results show that the higher accounting performance of family firms during financial crisis does not seem to be explained ownership concentration, but rather to the family ownership characteristics discussed above. In fact, incrementally to what has been tested in previous studies, our work also controls for institutional blockholder-controlled firms, and shows that these classes of firms do not report significant increase of accounting performance during financial crisis. This test is relevant in providing evidence that ownership concentration alone does not explain our results and that the particular characteristics of family firms, such as family shareholders' incentives and investment horizon, lead to better performance in periods of crisis.

The results presented in table 4 are consistent with the EFS thesis and signal the absence of a systematic extraction of additional expropriative private benefits of control by the controlling family, which should lead to lower accounting performance.

4.2. Investment cuts during financial crisis

Moreover, these preliminary findings allow us to further develop our analysis investigating the dimensions of the EPS by family-controlled firms during the recent financial crisis (2008-2010).

As we argue above, the crisis may create higher incentives to extract private benefits, to compensate for the decline in cash flow generation, thus exacerbating minorities' expropriation in family owned companies. However, in a prolonged crisis, the competitive selection puts the entire existence of many firms at risk. This creates incentives to focus strongly on survival strategies because this will bring, as a consequence, a stronger competitive position. Lacking the support of an expanding market trend and of the consequent rich self-financing, these strategies need to be supported by additional resources, both in terms of managerial/entrepreneurial efforts, and in terms of financial capital.

We further develop our analysis of family firms EFS proposition by first studying investment decisions (table 5) and then financing decisions (table 6) of the firm.

Table 5. The Effect of Financial Crisis on Investment Decisions in Family and Non-Family Firms

This table reports the results of the regressions that examine the effect of financial crisis on Investment decisions in family and non-family firms, from 2006 to 2010. Model 1 reports results for the whole sample using Capex scaled by the book value of total assets as dependent variable, Model 2 reports results for the whole sample using the natural logarithm of Capex as dependent variable. The table reports the coefficients and the standard errors in parentheses. The standard errors are clustered at firm level. Coefficients' significance: * p < 0.10; ** p < 0.05; *** p < 0.01. All Variables are defined in the Appendix.

Variable	*Capex/Assets* *(1)*	*Log(1+Capex)* *(2)*
Intercept	.070	-3.947
	(.014)	(.714)
(Family Firms)x(Crisis Period)	-.002	-.235
	(.014)	(.175)
(Non-Family Firms)x(Crisis Period)	-.000	-.123
	(.017)	(.153)
Control Variables	Yes	Yes
Observations	685	635
R-squared	.039	.777

In Table 5, we study whether family firms experience any additional investment cuts during the financial crisis, as compared to non-family firms. In order to capture any investment cut decisions over time, in Model 1 we use capital expenditures scaled by total assets as a dependent variable (Capex/Assets), while in Model 2 we run the same regression of Model 1 but using the natural logarithm of capital expenditure (Log[1+Capex]). We control for industry as well as company fixed effects, and we cluster the standard errors by firm to adjust for heterogeneity in the residuals. Finally, to capture the effect of years of crisis we interact the crisis dummy (defined above) with the family and non-family firm dummies. Model 1 and Model 2 show that, during financial crisis, neither family nor non-family firms suffer from any investment cuts. The coefficients of the interaction variables used are not statistically significant (as expected).

This is in line with our hypothesis and strengthens the thesis that, during times of crisis, family firms do not behave opportunistically by cutting investments, because they would increase the scarcity of financial resources and increase the likelihood of firm's bankruptcy in the short-term, thus reducing the total expected benefits in the long-term.

4.3. Financial support during financial crisis

The third and final part of our analysis aims to demonstrate that during the crisis, controlling-family owners do not decrease their financial support to the firm. On the contrary, they increase their direct financial support to their firm, reducing

the payment of dividends or issuing (and subscribing) new shares. In order to test for the financial support of shareholders during times of financial crisis, we use net cash flow from shareholders as the dependent variables. We expect that, during times of financial crisis, family ownership is positively related to net cash flow from shareholders.

Table 6. The Effect of Financial Crisis on Financing Decisions in Family and Non-Family Firms

This table reports the results of the regressions that examine the effect of financial crisis on financing decisions in family and non family firms, from 2006 to 2010. Model 1 reports results for the whole sample using Shareholders' cash-flow as dependent variable. The table reports the coefficients and the standard errors in parentheses. The standard errors are clustered at firm level. Coefficients' significance: * p < 0.10; ** p < 0.05; *** p < 0.01. All Variables are defined in the Appendix.

Variable	*Net Cash Flow from Shareholders (1)*
Intercept	6.811***
	(1.205)
(Family Firms)x(Crisis Period)	.545*
	(.290)
(Non-Family Firms)x(Crisis Period)	-.215
	(.386)
Control Variables	Yes
Observations	528
R-squared	.070

Table 6 reports results for the third part of our analysis. In the model we regress our variables of interest using net cash flow from shareholders as the dependent variable. We control for industry as well as company fixed effects, and we cluster the standard errors by firm to adjust for heterogeneity in the residuals.

Results show that, in our sample, family firms benefit from incremental financial support by shareholders during financial crises. We measure the financial support provided by shareholders (*net cash flow from shareholders*) as equity of firm *i* at year *t,* minus net income (including other comprehensive income) of firm *i* at year *t,* minus equity of firm *i* at year *t-1.*

As the coefficient of the interaction between the family firm dummy and crisis dummy (.545) is positive and significant at the 10% level, we find evidence for our EFS thesis of additional financial support, in terms of equity contribution or lower dividends distributions. On the contrary, we do not find evidence of a similar behavior by non-family firms' shareholders. This confirm that these shareholders do not incrementally support their company during crisis, but rather they prefer to use the exit strategy, disinvesting from the firm to move toward less risky investments.

The results are consistent with EFS propositions, because during financial crisis, family ownership: (i) is not associated with higher investment cuts (as indeed is demonstrated by Table 5), and (ii) is associated with higher contribution of financial sources by shareholders (as demonstrated by Table 6).

These findings give support to the thesis that family controlled firms have specific reactions to crisis because of their controlling shareholders' incentives. During financial turmoil, diversified investors in a dispersed ownership company may simply prefer to exercise their exit option and reallocate their portfolio by overweighing lower risk investments (less risky businesses, non equity investments, valuable commodities), thus leaving firms with relatively lower financial resources. However, controlling shareholders in family controlled firms react in the opposite way, strengthening entrepreneurial and financial support to the firm by sustaining investments and equity financing to protect the future flow of benefits the firm generates for them.

5. DISCUSSIONS AND CONCLUSIONS

Our study posits, and gives early empirical evidence to, the general proposition that family controlling owners, during periods of economic and financial crisis, behave in order to preserve the continuity of the firm and therefore further support the firms they control with increased entrepreneurial and financial resources (the EFS proposition).

The basic undepinning of the research hypotheses presented in this paper (and supported by the results reported above) is the incentive of family controlling owners to preserve the benefits generated by the company throughout the years, regardless of the nature of these benefits.

Our findings are consistent both with the presence and with the absence of private benefits of control, although the higher accounting performance of family firms during the financial crisis is contrary to the systematic extraction of expropriative private benefits.

Indeed, our results are consistent with both socioemotional and economic idiosyncratic private benefits, because in both cases (contrary to expropriative private benefits) they could be extracted without negative effects on short-term accounting performance.

The empirical test is based on a sample of Italian firms, for the particular propensity of this system to family ownership, and for the particular intensity of the financial crisis for this country (significantly increasing the business risk). Through this sample we provide evidence of the absence of systematic extraction of significant expropriative private benefits.

In fact, we show that family owned firms, during economic and financial crisis, report higher accounting performance (as compared to non-family firms), and experience higher financial support from their shareholders (i.e. the controlling family), measured by the net cash flow from shareholders to the firm. This increased financial support from family shareholders is reflected in an increase of the financial resources available for managers, allowing avoiding significant investments cuts. Basically, family owners, in order to preserve the continuity of the firm, and maintain control of it in the long run, may decide to face financial turmoil by investing new financial resources in their companies. As we show in the results, these resources are employed in

order to avoid investment cuts and reduce the dependency from outside financers, or anyway tackling any additional increase in financial needs.

Findings for non-family owned firms are different, mainly in the absence of a significant increase in financial support from shareholders during financial crisis. Shareholders in these companies could easily decide to disinvest from a company and invest in another, or switch temporarily to low-risk investments.

In sum, we demonstrate that during times of economic and financial crisis, family firms, as compared to non-family ones: (i) reports higher accounting performance; (ii) experience additional financial support from their shareholders; (iii) don't experience incremental investment cuts, consistently with additional entrepreneurial support.

Our results are in line with the research stream on socioemotional wealth, but also with the hypothesis of idiosyncratic private benefits extraction. On the opposite, the positive relation between family ownership and accounting performance is not in line with expropriative private benefits extraction.

The results shed new light on the role of family ownership as a countercyclical ownership model, and not only as an inefficient model generating minorities' expropriation. In that, they have relevant implications for company regulation and industrial policy, that can actually influence the ownership structure of firms.

Future research directions should extend the analysis to a wider sample, taking into consideration different institutional settings, and should define an extended model of analysis for the different kinds of benefits the family extracts, in order to understand how the entrpreneurial and financial support incentive is related to the extraction of economic or socioemotional benefits, and if the extraction is expropriative for minority shareholders or not.

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Appendix 1

Table A.1. Description of Variables

Variable	*Definitions*
Family Firms	A dummy variable equal to 1 if the firm is a family firm, and equal to 0 otherwise.
Non-Family Firms	A dummy variable equal to 1 if the firm is a widely-held non-family firm, and equal to 0 if a firm is a family firm.
Crisis dummy	A dummy variable equal to 1 for years from 2008 to 2010, and equal to 0 for years from 2006 to 2007.
(Family Firms)x(Crisis dummy)	The interaction variable calculated as family firms dummy times Crisis dummy
(Non-Family Firms)x(Crisis dummy)	The interaction variable calculated as non-family firms dummy times Crisis dummy
Market to Book	The sum of the book value of debt plus market value of equity divided by the firm's total assets.
Log Total Assets	The natural logarithm of the book value of the firm's total assets.
Net Cash Flow from Shareholders	The natural logarithm of the net cash flow from shareholders calculated as Equity at year t, minus Net Income (including other comprensive income) at year t, minus Equity at year t–1.
Leverage	The total book value of financial debt divided by the book value of debt and the book value of equity.
Capex	The annual Capital expenditure scaled by the total assets of the firm.
Current Liabilities	The total amount of current liabilities.
Cash	The total amount of total liquidity of the firm scaled by total assets.
Beta	The unleverade beta of the firm at year *t*.
Blockholder-Controlled Firm Dummy	A dummy variable equal to 1 if a Non-Family firm has a blockholder that controls the company, and otherwise equal to 0.