IS FAMILY BUSINESS BEAUTIFUL? EVIDENCE FROM ITALIAN STOCK MARKET

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Abstract

From the agency perspective, literature studying links between investor protection and governance profiles argues that family is more disposed than other shareholders to divert private benefits in countries with a poor legal framework: the question is empirically puzzling. From the stewardship perspective, the degree of familiness affects the stewardship attitude of the firm. We do not find that family firms perform worse or better than non-family counterparts. Some evidence is found as regards the entrenchment effect: family CEOs seem to weaken firm performance. Stewardship attitude – not familiness – does matter: moderate levels of stewardship improve performance and increase risk-taking.

Keywords: Family business, agency theory, stewardship theory, performance, Italian listed firms

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1. Introduction

This paper, by relying on a unique and hand-collected database on ownership structure and governance of Italian non-financial medium- and large-sized listed firms, intends to verify whether the familiness of a business, in terms of ownership and management, could be an explanatory variable of firm performance. In doing so, we can separate the small-size effect on performance from the "family effect" and accordingly we only focus on the latter. Distinctive characteristics identifying the family firm such as "altruism" (Lubatkin *et al*., 2005, Schulze *et al*., 2003), long-term orientation (Casson, 1999, Chami, 2001), creation of "unique" resources through family ties (Habbershon *et al*., 2003, Zahra *et al*., 2004), risk aversion (Mishra and McConaughy, 1999), succession issues (Miller *et al*., 2003, Cucculelli and Micucci, 2008), nepotism in appointing CEOs (Bennedsen *et al*., 2007, Burkart *et al*., 2003), commingled family and firm assets and extraction of private benefits of control (Claessens *et al*., 2002, Faccio *et al*., 2001, Cronqvist and Nilsson, 2003), free riding, shirking and self-control of heirs and parents (Schulze *et al*., 2001, Jensen, 1994), concentration of family portfolio (Fama and Jensen, 1985) have led us to explore how these features may affect firm performance (i.e., market-based and accounting-based performance).

In the same vein as Barontini and Caprio (2006), Villalonga and Amit (2006), Anderson and Reeb (2003), Sraer and Thesmar (2007) and Favero *et al*. (2006), we separate family firms from non-family counterparts and analyze if the former are better/worse performers than the latter. This survey adds to the existent literature from a double perspective: on the one hand, from the agency perspective (Jensen and Meckling, 1976, Fama and Jensen, 1983, Morck *et al*., 1988), we focus on a country with poor investor protection, high ownership concentration, large incidence of family-controlled pyramidal groups that create expropriation risks of minority shareholders. These peculiarities make possible a more careful analysis on the supposed (but still puzzling) link between poor legal environment protecting shareholders and the greater attitude of families to divert private benefits. Our analysis is not focused on the effect of legal environment as well as on the effect of ownership-control separation on minority shareholders' wealth: theory (Johnson *et al*., 2000, Almeida and Wolfenzon, 2006, Bebchuk *et al*., 2000) and evidence (Faccio *et al*., 2001, Bae *et al*., 2002, Faccio and Stolin, 2006) on these topics are comprehensive. We study whether, given a fixed legal, economic and corporate framework, family ownership and management may affect firm performance and how governance patterns that show poorer performance could be improved. On the other hand, from the stewardship perspective (Donaldson and Davis, 1991, Fox and Hamilton, 1994, Davis *et al*., 1997, Anderson and Reeb, 2004) that, unlike agency theory, points out collectivistic and pro-organizational objectives of the organization as determinants of family firms performance, we try to verify whether and under which conditions the role of steward taken on by family members could lead to better/worse performance than non-family firms.

A multifaceted involvement of the family in the ownership, governance and management of the firm enables us to investigate several profiles of family business. The level and mode of family involvement

in the firm can produce various patterns of financial architecture (Myers, 1999). In other words, the familiness of a business (we call it "F" factor) can assume many degrees in a continuum referring to various combinations of ownership and governance dimensions (Astrachan *et al*., 2002, Klein *et al*., 2005). The "net" effect on agency costs/benefits and on stewardship attitude depends on these combinations.

According to Villalonga and Amit (2006), Anderson and Reeb (2003), Claessens *et al*. (2002), Faccio *et al*. (2001), Cronqvist and Nilsson (2003), we argue that family firms, especially those having family members as CEOs, are more inclined than others (non-family firms) to put in place opportunistic behaviors at the detriment of minority shareholders in countries with a weak investor protection leading to a lower market valuation, as measured by the market-to-book ratio, reflecting higher agency costs stemming from the conflict between majority and minority shareholders. We find that family firms do not seem to produce lower market-based performance than non-family firms but when the CEO position is taken by family members the performance experiences a significant fall compared with that of non-family firms.

With reference to the stewardship perspective, we find evidence that stewardship drivers (e.g., board composition, ownership structure, etc.) matter. Moderate levels of ownership concentration improve performance and increase risk-taking; larger boards result in higher performance but only in early-generation family firms with higher ownership concentration: we argue that intergenerational succession causes ownership fragmentation, crowds boards in later generations and engenders conflicts among descendants as a result of several and conflictive interests; family CEO, as also found by verifying the agency theory, leads to lower performance but the effect could be mitigated by reducing CEO and family influence through larger boards. Stewardship drivers and proxies of agency costs are, for the most part, similar (Anderson and Reeb, 2004, Corbetta and Salvato, 2004). Differences refer to argumentations provided by each perspective in supporting each variable: agency theory captures egoistic and economic aspects; stewardship theory highlights the effect on collective aims and cooperative climate in the organization.

Favero *et al*. (2006), the only Italian empirical study that carries out an analysis similar to our own, find slightly different results: no matter who is the CEO (a family member or an outside CEO), they show no evidence of superior or inferior market-based performance of family firms. Barontini and Caprio (2006), in their cross-country analysis, also include Italian firms in their sample and find results close to this study. Compared with Barontini and Caprio (2006), we provide up-to-date evidence, a broader point of view and a larger sample in order to make the results more consistent. With respect to Favero *et al*. (2006), we provide a more in-depth analysis on ownership structure variables and an original set of hypotheses that support the results. Moreover, from the stewardship perspective, there are not directly comparable studies that analyze countries with characteristics similar to Italy.

The remainder of the paper is organized as follows: section two is devoted to describe strengths and weaknesses of family business; section three designs and discusses the hypotheses referred to agency and stewardship theories that will be tested; section four provides details on sample, variables and empirical test design; section five shows and discusses empirical findings on the sample of Italian firms; section six draws conclusions and policy implications.

2. Strengths and weaknesses of family business

Over years, agency theory, stewardship theory and the resource-based view have pointed out the strengths and the weaknesses of family firm, which can be summarized as follows.

Among the former we can highlight:

1. Long-term orientation of family members, especially the parents (Casson, 1999, Chami, 2001): a long-term view prompts raising and holding of "patient" funds and resources to support the growth, the stability and the sharing of a firm's strategic posture. It ensures that stakeholders (customers, suppliers, creditors, employees, etc.) can rely upon the presence of a stable partner for building long-lasting economic and non-economic relationships. It should help make real investments, which entail a long-term horizon, by employing value-based valuation methods, rather than non-rational and non-economic criteria.

2. The creation of "unique" resources: many authors (Zahra *et al*., 2004, Habbershon *et al*., 2003) argue that family firm would be able to generate a competitive advantage by using unequalled resources developed by the firm itself. These resources involve five "dimensions": human capital, social capital (relationship capital), financial capital, informal capital and lower costs related to governance structure.

3. Altruism (Lubatkin *et al*., 2005, Schulze *et al*., 2003): it means the special attitude of people linked by family ties to adopt a mutual-wellbeing-based behavior. The altruism reflects: (*i*) the goal of family members to put the firm's health over their own interest; (*ii*) the attitude of older family members (founder, parents, etc.) to bequeath values as honesty, personal effort, loyalty, mutual trust, in a word, the "culture", to heirs; (*iii*) their attitude to be open-handed to heirs, also in managing the firm.

Among the latter, we would like to emphasize:

1. Risk aversion (Mishra and McConaughy, 1999): the defensive attitude that could qualify the family's culture, oriented to preserve the health

accumulated, could hamper the development of innovative processes and international expansion strategies and restrain equity and debt financing aimed to support the growth. It could also give rise to closed ownership structure and management, respectively, from external investors and outside managers, in order to minimize their interferences and the risk of loss of control.

2. Succession issues (Miller *et al*., 2003, Cucculelli and Micucci, 2008): the succession represents a critical stage in the life of family firms. Risks linked to intergenerational changes mainly stem from two key elements: the lack of an efficient and well-timed succession plan; the orientation to appoint heirs in executive charges no matter their managerial abilities (problem known as nepotism).

3. Managerial skills' market: a few studies (Bennedsen *et al*., 2007, Burkart *et al*., 2003) point out that the competitiveness shortfall of the managerial labor market in family firms, engendered by the small pool of candidates running for executive positions, boosts the likelihood to appoint poor managers, resulting in an adverse selection problem, that is a failure in the managerial labor market.

4. The commingling of family and firm assets and the private benefits of control: the compounding between family and firm, if on the one hand could be a source of competitive advantage, on the other hand, especially when the sharing of personal and economic values among family members is limited, could give rise to family conflicts that, in turn, could negatively affect the business. Moreover, the mix between family and firm could create wealth-extraction problems at the expense of other shareholders. The lower the economic involvement of the family in the firm by employing control-enhancing devices, the higher should be the propensity of the family to extract private benefits. A number of studies argue that the family as controlling shareholder is a subject more able than others (funds, financial institutions, state, etc.) to efficiently divert private benefits, chiefly in countries with poor legal and judicial protection of individual shareholders (Claessens *et al*., 2002, Faccio *et al*., 2001, Cronqvist and Nilsson, 2003).

5. Free riding, shirking and self-control (Schulze *et al*., 2001, Jensen, 1994): we can call them "the dark side" of altruism, that is to say the negative consequences that could stem from a harmful and distorted exploitation of the concept. A biased qualification of altruism means, on the one hand, opportunistic behaviors put in place by family members, especially heirs, on the other hand, an extreme view of the notion by parents that results in negative outcomes.

6. Portfolio diversification (Fama and Jensen, 1985): the high portfolio concentration in the firm, distinctive of the family portfolio, rules out one of the pricing models' prerequisites (e.g., CAPM is based on market portfolio).

The aforementioned points support a vision of the phenomenon that emphasizes a multifaceted perspective (Aguiari and Venanzi, 2007) of family business that makes both screening the effect of each element on firm performance and identifying prevailing effects puzzling.

3. Starting hypotheses: The picture

3.1. The agency theory approach

Let us briefly introduce some of preliminary distinctive characteristics of family business recognized by the agency theory:

1. Lower agency problems: the huge involvement of the family both in ownership and in management (or in the board as non-executive directors) eases the risk of opportunistic behaviors of managers (monitoring and incentive effects).

2. High ownership concentration along with overlapping charges between owner and CEO could generate an entrenchment effect within inefficient family members joining firm management.

3. Concentrated ownership, usual in family firms, weakens the role of market for corporate control in firing poor managers.

We are going to test the following hypotheses:

AG-HP1: In a country like Italy, where the ownership concentration is high, the ongoing decrease of the extent of separation between ownership and control as well as the improvements of legal framework protecting shareholders from self-dealing are on track but still to be enhanced if compared with those of other developed Common Law and Civil Law countries (Enriques and Volpin, 2007, Aggarwal *et al*., 2007), the family is evaluated as able and inclined to divert private benefits at the expense of minority shareholders. Therefore, we theorize a negative relationship between family firm and market-based performance (so far without discriminating the type of family involvement, in ownership and/or management).

AG-HP2: If the firm's management is delegated to family members, we assume worsening agency costs via entrenchment effect because of the higher difficulty removing inefficient managers. If so, we would have to find lower market-based performances in family-managed firms compared with non-family firms and family firms with professional managers as CEOs. Accordingly, the link between family-managed firm and market-based performance should be stronger than that shown in AG-HP1.

AG-HP3: Professionally-managed family firms with family members in the board without executive powers, but involved in monitoring the business, are well perceived by the market which should appreciate, on the one hand, the effectiveness of family monitoring role made strong through both its deep commitment and a broad knowledge of the firm, on the other hand, the professional managers' skills and the straightforward ties between CEO and family that, in turn, reduce the entrenchment effect. Summarizing, we size them up as non-family firms that benefit from

a context of lower agency costs. We expect to find a positive relationship (or no relationship if both family and non-family firms are viewed in the same way) between professionally-managed family firms and market-based performance.

Unfortunately, our sample includes a trivial number of family firms without any family involvement in board and management that would make any statistical comparison unreliable. Theoretically, they should be "the worst of all worlds", that is to say, on the one hand, higher agency costs due to the shortage of monitoring effort by family members and outside directors on CEO, on the other hand, the lack of any family participation providing expertise, resources, sharing of personal and economic values, etc. (Corbetta and Salvato, 2004, Anderson and Reeb, 2004).

3.2. The stewardship theory approach

The approach's heart is based on the steward role taken on by owners and/or managers, should some conditions occur. From this perspective, egoistic and self-serving economic purposes of shareholders and managers no longer hold as trigger reasons, but the well-being of the organization and its stakeholders, the growth and the long-term survival of their firm take over as shared and collective aims. These attitudes would build a cooperative climate into the organization and they would engender far-sighted contributions that feed distinctive capabilities and produce superior financial performance (Miller and Le Breton-Miller, 2006).

The following variables are likely to breed such stewardship attitude:

- Ownership concentration and certainty of control.
- Closeness between ownership and control, in terms of both limited gap between voting rights and cash flow rights and short distance in pyramidal groups between an organization (i.e., lower-tier firms) and its owners or agents.
- Commitment of ownership in management and long management tenure.

Should aforesaid factors be driven to extreme degrees, performance could be negatively affected: the excess of overlapping between controlling owner, CEO and firm could cause the syndrome "the organization is mine", involving risks such as selfishness and conservativeness in management, status quo defensiveness, dominance of the life-style oriented profile on the open-growth star one (Poutziouris, 2001).

The familiness of a business should promote, on the one hand, the stewardship attitude because of the strong link between the owning family and the organization (leaders are either family members or linked to the family) as long as the far-sighted orientation, which is fed by altruism, reputation building and family CEO tenure. On the other hand, it might increase risks of the "dark side" of the stewardship: negative influence of the overlap between owner and CEO, hiring inefficient managers, conflicts between owner's personal interests and interests of the firm, especially when later generations spread out and split up family cohesion.

The following factors are likely to overcome the downside of the stewardship attitude:

- Large board of directors, including a great number of independent directors providing resources and competences (the board capital by Hillman and Dalziel, 2003).
- Multiple and multigenerational ownership not directly involved in management (multifaceted stewardship), far-sighted orientation fed by family altruism and reputation building in favor of heirs (prospective stewardship).

In order to test the stewardship perspective, the following hypotheses will be verified:

ST-HP1: An inverted U-shape relationship between ownership concentration and firm performance.

ST-HP2: An inverted U-shape relationship between ownership concentration and unlevered beta and a U-shape relationship between ownership concentration and corporate leverage. The stewardship attitude of the firm is positively related to the risk-taking attitude and negatively related to the capital commitment of the ownership (i.e., negatively related to the leverage). In the "dark side" of the stewardship, these relationships are inverted.

ST-HP3: The above relationships (ST-HP1 and ST-HP2) don't hold in family firms. In family firms, the familiness itself does drive the stewardship attitude.

ST-HP4: Therefore, family and non-family sub-samples do not statistically differ in performance while controlling stewardship drivers.

ST-HP5: For both family and non-family firms, stewardship being equal, larger boards lead to better performance (due to multifaceted stewardship and resources provision by board of directors).

ST-HP6: In family firms, the performance is higher when the board includes non-executive family members (professionally-managed family firms): the controlling owner acts as vigilant steward and the overlap between founder and CEO lowers performance.

ST-HP7: In family firms, the succession to later generations weakens the stewardship attitude as it is likely to spread up the ownership cohesion, to dilute the family control and to create conflicts among family members.

4. Research design: Sample, variables and structure of empirical test

The empirical analysis has been performed on a sample of 119 Italian non-financial firms listed on the main segment of the Milan Stock Exchange from 2000 to 2004 (5 years). The sampling method has

provided an unbalanced panel totaling 595 observations.

The variables employed can be encompassed in the following 4 groups:

1) Performance variables

- Market-based performance measure:
  - Market-to-book ratio (M/B): market capitalization divided by common equity.
- Accounting-based performance measures:
  - ROA: net operating profit divided by total assets.
  - ROA ADJ: obtained by dividing the ROA of each firm by the industry median value according to the Mediobanca industry classification provided by the "Settori On-Line" database.
  - ROE: after-tax profit divided by accounting measure of firm equity.

2) Variables decoding family firms

We consider a family firm as firm whose ultimate largest shareholder (that is at the top of a pyramidal control chain, if existing) is one of the following subjects:

- A group of people linked by kinship that hold at least a 30% voting stake as a whole. If the stake is in the 30% − 50% range, to make sure family control, it is additionally required that the largest shareholder's stake doubles the second largest shareholder's stake. Details on calculation method of voting stake are shown in the point three.
- A single controlling owner (there is no family member holding stakes) with at least a relative of controlling shareholder in the board.

We introduce a dummy variable (FAM_OWN) equaling 1 whether one of the above occurrences should take place.

As family members often hold stakes smaller than 2% (the threshold that triggers legal disclosure requirements), the stake held by the family could have been underestimated. We sort out the problem by investigating both shareholdings disclosed in the minutes of annual shareholders meeting and those shown in the documents attached to annual report related to stakes held by directors and managers.

If the family is not the direct shareholder, the identity of the ultimate shareholder has been traced by using the "R&S Mediobanca" database and the reports of the chambers of commerce that also show the ownership structure for non-listed firms (in pyramidal groups, holding and sub-holding firms are often non-listed companies). The family has been identified by the surname (stakes held by relatives with the same surname have been considered as a whole). For families with more than one branch and family members with different surnames (i.e., founder's wife, sons of female heirs, etc.), family membership has been controlled by using Google search engine and Lexis-Nexis database for reading annals of the most important Italian and international newspapers (e.g., "Il Sole 24 Ore", "La Stampa", "The Wall Street Journal", "Financial Times", etc.).

Family commitment in firm management has been introduced as further condition for testing the effect of family-managed firms in comparison with others. Two additional independent variables are set up:

- A dummy variable taking 1 if at least a member of the controlling family joins the board without executive powers and the CEO does not belong to the family (FAM_BOD).
- A dummy variable taking 1 if a family member holds offices of CEO and/or chairman and/or vice-president provided that, in the latter two cases, the charge is empowered (FAM_CEO).

3) Ownership structure and governance variables

1. Votes-to-capital ratio (VR/CFR), defined as voting rights (VR) scaled by cash flow rights (CFR) held by the ultimate largest shareholder. The higher the ratio the larger will be the separation between ownership and control. In pyramidal groups, we have a control chain whether the stake owned by the direct largest shareholder in each level outnumbers 30% (the threshold mounts to 50% if the company is not listed: we argue that in listed firms a 30% voting stake is enough to wield control; in non-listed firms the ownership is more concentrated, the number of shareholders is lower therefore 30% could not be enough). If the stake of the largest shareholder is between 30% and 50% (this condition only applies to listed firms), the control occurs if the stake is at least twice the second largest shareholding (Faccio and Lang, 2002, Barontini and Caprio, 2006). If, in a bottom-up approach, in any control chain level no shareholder exceeds the above percentages, the firm is considered widely-held and the votes-to-capital ratio is valued at that point.

For determining the voting rights we employ the weakest link approach (Faccio and Lang, 2002): basically, in a control chain we find the smallest controlling stake (the weakest link of the chain: the hypothesis is that a takeover can take place easier on the weakest link). For determining cash flow rights we employ a mathematical procedure based on the Leontief input-output model (Leontief, 1986) that uses the technology matrix applied to shareholdings.

2. As proxy variable of the incentive effect, cash flow rights are employed (CFR): a positive link with performance is expected.

3. Intensity of the intra-group financial relationships (i.e., deals among group-affiliated companies), measured as follows (GROUP): (trade and financial receivables to controlled and controlling companies + trade and financial payables to controlled and controlling companies) / total assets. The higher the transactions within group the higher could be the chance that those operations are

performed to tunnel resources towards the apex of the pyramid and, therefore, close to the largest shareholder at the expense of minority shareholders of controlled firms. A high volume of those transactions could mean diverting resources from minority shareholders.

4. A variable (HOLDING) that shows the firm's position inside the control chain of a pyramidal group. It takes values as follows: mere holding companies = 1; operating holding companies (holding companies directly engaged in business) = 2; operating companies (firms generally at the bottom of the pyramid that own no or very few stakes in other companies) = 3. The breakdown follows the criteria shown below:

a) Mere holding companies: more than 50% of a firm's assets is composed of controlling stakes and/or profits/losses from equity stakes (i.e., dividends, write-offs and revaluations of shareholdings, profits and losses from equity trading) exceed sales.

b) Operating holding companies: controlling stakes are between 50% and 15% of a firm's assets and/or sales exceed profits/losses from equity stakes.

c) Operating companies: controlling stakes are smaller than 15% of a firm's assets and/or there is no profit/loss from equity stakes.

5. Size of board of directors (SIZE_BOD): number of directors.

4) Control variables

Variables taken into account as determinants of firm performance (market-to-book ratio) but not directly linked to agency theory hypotheses:

- Leverage ratio (LEVERAGE): interest-bearing debt / equity (accounting measures).
- Stock returns volatility (VOL), employed as proxy of firm total risk (market + diversifiable risk): standard deviation of monthly returns over the past 5 years.
- Levered and unlevered beta (BETA_L and BETA_UL): the former estimated by the market model by regressing the firm's monthly returns over the past 5 years on the MIBTEL index monthly returns; the latter, by ungearing levered beta as usual.
- Firm size, measured as natural logarithm of total assets (SIZE).
- Firm age (AGE), measured as natural logarithm of the years since firm inception.

Ownership structure variables, governance variables, variables identifying family firms and control variables have been drawn from the following sources: CONSOB (Italian supervisory authority for firms and markets), Calepino dell'Azionista (Mediobanca database), R&S Mediobanca and Datastream Thomson Financial database.

The link between family firm and performance, from the agency perspective, has been analyzed by OLS regressions with industry fixed effects according to the following model:

$$M/B_{i,t} = a + b*FAMILY_{i,t} + \mathbf{c}*\mathbf{CONTROL\_GOV_{i,t}} + \mathbf{d}*\mathbf{CONTROL\_ECON_{i,t}} + \\ + \beta_{ID}*\mathbf{INDUSTRY\_DUMMY}_{i,t} + \beta_{TD}*\mathbf{TIME\_DUMMY}_{t}$$

Where:

$FAMILY_{i,t}$ is the independent variable of interest. It takes values 1 or 0 according to the family firm configurations described above (FAM_OWN, FAM_BOD, FAM_CEO).

$CONTROL\_GOV_{i,t}$ is a vector composed of the following governance variables: VR/CFR, CFR, GROUP, HOLDING.

$CONTROL\_ECON_{i,t}$ is a vector composed of economic and financial determinants of performance: ROA, BETA_L, VOL, LEVERAGE, SIZE, AGE.

$INDUSTRY\_DUMMY_{i,t}$ is a vector composed of 22 (23 industries less 1) dummy variables, one for each industry other than that assumed as "base". Industry classification has been drawn from the Mediobanca database "Settori On-Line" adding the real estate industry that Mediobanca excludes.

$TIME\_DUMMY_{t}$ is a vector composed of 4 (5 years less 1) dummy variables, one for each year, the last one excluded.

Outliers have been dealt with according to winsorizing technique by using the 5th and the 95th percentile as thresholds.

The stewardship theory has been verified by employing:

- Non-parametric tests (Kruskal-Wallis test) to compare performance and risk-taking of firms sub-samples defined by the variables identified as drivers of stewardship attitude.
- Kendall's Tau and Gamma coefficients to evaluate the correlation degree between rank variables.

5. Main results

5.1. Sample description

Descriptive statistics show some preliminary evidence on family firms' characteristics. As expected, family firms dominate the sample: 68.91% of the sample is composed of family-owned firms. They prevail in the following industries, belonging to the "*made in Italy*" industry (percent family firms in industry): apparel products (100%), food and kindred products (100%), industrial machinery and equipment (90.91%), building materials (90.91%), textile mill products (80%). On the contrary, their presence is negligible (8.33%) in the utility industry (electric, gas and sanitary services). Within family-owned firms, family-managed ones are outstanding: 81.48% of family-owned firms have a family member as CEO. The weight of both professionally-managed family firms with non-executive family members in the board and, especially, those without family members in the board is remarkably lower, respectively, 15.06% and 3.46% of family-owned firms.

Comparing the mean values by statistical unvaried tests (Table 1), the results show that the family firms:

- Have a market-to-book ratio significantly lower than non-family counterparts.
- Are more reliant on debt (statistically significant the non-parametric test).
- Have a higher ROA (evidence significant at the 10% level and for the unadjusted measure of accounting-based performance).
- Are less exposed to operating risk (unlevered beta).
- Have a far higher ownership concentration.
- Have a board of comparable size.
- Are younger and smaller.

5.2. The agency theory perspective: Regression analysis

As expected, the results in the Table 2 show that, for the variables FAM_OWN and FAM_CEO, the link between family firm and performance is negative but statistically significant only for the variable FAM_CEO. The variable FAM_BOD shows, as hypothesized, a positive but not statistically significant relationship with performance.

Overall, the evidence provides support to the hypothesis AG-HP2 but not to AG-HP1 and AG-HP3. The findings tell us that family firm per se does not suffer the negative market view but it seems that investors do not appreciate family members stepping into CEO position.

The evidence shown above is somewhat consistent with the results of other studies analyzing Italian listed firms. Barontini and Caprio (2006), breaking down the survey by country, found a negative relationship between family firm and performance (Tobin's Q), which turns to be statistically significant for heir-controlled firms; Favero *et al*. (2006) do not find any statistically significant link between family firm and the Tobin's Q.

Family-owned firms do not appear to be worse performers than non-family counterparts. Whereas, the market has a negative view of family-managed firms that suffer a significantly lower performance. Moreover, investors appear to have a good outlook of professionally-managed family firms showing performance as good as that of non-family firms. Basically, the source of the more severe agency costs in family firms seems to be the family CEO, denoting the market fear for the entrenchment effect that results in potential value-destroying actions by family CEO.

Surprisingly, the variable VR/CFR that signals the separation between ownership and control and, therefore, potential conflicts between majority and minority shareholders does not show any statistically significant finding (theoretically, the higher the separation the lower should be the market-to-book ratio reflecting more resilient agency costs). Interestingly, introducing in the Model 2 of the Table 2 (model 2a, Table 2[6]) an interaction variable defined as product of the two explanatory variables VR/CFR and FAM_CEO, we find a negative and statistically significant coefficient (at the 5% level) for the product variable. Moreover, the model with interaction variable is statistically significant (the F-test gives a value equals to 7.198). It means that the coefficient of the variable VR/CFR is different between the two groups (i.e., family-managed firms and non-family firms). Ownership-control separation seems to create more problems when the firm is managed by a family member, shedding further light to risks related to family CEO: investors are concerned that opportunistic behaviors linked to ownership-control separation may take place more frequently in case of family CEO. VIF (variance inflation factor) values show that multicollinearity problems are not of concern.

5.3. The stewardship theory perspective

Table 3 gives a description of the additional variables employed in this section of the analysis. Tables 4 and 5 provide findings. In family firms, both accounting-based and market-based performances are not affected by the extent of ownership concentration (Table 4, panel A). On the contrary, in non-family firms, market-based performance and ROA are significantly affected by ownership concentration according to an inverted U-shape relationship (Table 4, panel B): best performers are firms in the middle ranks (i.e., majority- and non-majority-controlled firms). Besides, the inverted U-shape relationship and the U-shape relationship that are found, respectively, for unlevered beta and leverage ratio support the hypothesis that the stewardship attitude affects the risk-taking attitude of the ownership and its long-term commitment in the firm.

Comparing family and non-family firms while controlling stewardship drivers, the following results can be highlighted:

- In non-majority-controlled firms (Table 4, panel C), professionally-managed family firms (i.e., family members are in the board but not as executives) do not differ from non-family firms in performance and risk-taking. Conversely, family-managed firms show a lower market-based performance as well as a lower operating risk, but a higher leverage ratio. In fully-controlled firms, no difference arises between family and non-family firms: in this case, family firms always have a family CEO (results omitted for brevity).
- In majority-controlled firms, family firms underperform non-family counterparts (family CEO not being relevant), are more risk averse and more

[6] In the model 2a of the Table 2, we only report coefficients of the variables of our interest (i.e., VR/CFR, FAM_CEO and VR/CFR*FAM_CEO). The other variables are included in the model and hold their significance.

leveraged (Table 4, panel D). Familiness along with ownership concentration leads stewardship attitude to extreme levels.

The above findings support the hypotheses from ST-HP1 to ST-HP4 and the hypothesis ST-HP6.

In family firms, transition across generations lowers firm performance, increases board size, lowers ownership concentration and heightens ownership-control separation. These findings support the hypothesis ST-HP7. Moving to the next generations seems to lessen the stewardship attitude, negatively affecting firm performance (Table 5, panel A). In non-family firms, where firm age is not connected to succession, performance and operating risk show a U-shape relationship with firm age, whereas board size provides an inverted U-shape relationship. With regard to the hypothesis ST-HP7, from comparing family and non-family firms, we can argue that succession in family firms leads to worse performance (Cucculelli and Micucci, 2008), ownership fragmentation and crowded boards in later generations (more as founder-descendant gap increases), weakening the stewardship orientation and making family ties poorer.

The hypothesis ST-HP5 is partially supported: in non-family firms the results show a statistically significant negative correlation between ownership concentration and board size (Table 5, panel B). This means that board size serves as mechanism of representing heterogeneous shareholders' interests. In family firms, a negative correlation is found between family CEO and board size: smaller boards are headed by family CEOs (Table 5, panel C). Being the family CEO a key driver of stewardship attitude (we call it "S" factor), ST-HP5 has been broken down in two sub-hypotheses (Table 5, panel D):

ST-HP5a: In family-managed firms, larger boards should lead to better performance as they hinder the potential negative impact of an extreme "S" factor.

ST-HP5b: Fully-controlled non-family firms with larger boards should be better performers as board size seems to prevent the "S" factor bias.

The evidence is consistent with both hypotheses whether the performance is measured by accounting ratios (ROA and ROE). If the performance is measured by the market-to-book ratio, no significant relationship is found in non-family firms' sub-sample; in family firms' sub-sample, the link is significant at the 10% level. The positive relationship seems to be more statistically significant while controlling for firm age and then for firm generation (data omitted for brevity): in first and second generation the link is strongly positive (multifaceted stewardship); in subsequent generations, the sign does not hold its significance: larger boards could be proof of intergenerational conflicts and of ownership dispersion (see results found above by testing the hypothesis ST-HP7).

Drawing some conclusions, the empirical evidence from this study appears to support the stewardship theory hypotheses, in terms of both the strength of the impact on performance of the variables identified as stewardship drivers and the direction of this impact. We can outline the following key findings:

- The relationship between "S" factor variables and performance takes an inverted U-shaped form.
- This relationship could also be interpreted in terms of risk-taking attitude of the firm.
- "S" factor drivers seem to add up to a cumulative effect.
- The familiness of the ownership and the related governance profiles (presence/absence of family members in the board; family or professional CEO; number of generations involved in firm management and nature of commitment, etc.) act as stewardship drivers.
- In non-family firms, board size is inversely related to ownership concentration.
- Larger boards seem to overcome the dark side of the stewardship, especially in terms of accounting-based performance measures. In family firms this effect is stronger and extended to risk-taking attitude while controlling for successions: in third and following generations, board size seems to be expression of ownership fragmentation and of conflicts among descendants.

6. Concluding remarks

Merging the key points of the story with reference to agency and stewardship perspectives, we do not find that family firms perform worse or better than non-family firms. However, when CEO is a family member, especially in later generations, the performance of family firms experiences a significant fall. This result confirms, on the one hand, investors' concern about the potential negative outcomes related to CEO entrenchment, on the other hand, the market opinion about the poorer managerial skills of heirs compared with those of the founder. Besides, the separation between ownership and control is not itself the reason of poorer market-based performances but if it occurs in family firms with a family CEO, the performance faces a significant decline: greater expropriation risks linked to the higher separation seem to be perceived only when the CEO is a family member. This evidence is consistent with the investors' concern about a potential entrenchment effect.

From the stewardship theory perspective, the "S" factor (i.e., the stewardship attitude) but not the "F" factor (i.e., the familiness of the firm) does matter in determining performance. Obviously, in family firms the "S" factor drivers are strictly related to the mix of characteristics of the specific family ownership pattern: as said above, we can find several profiles of financial architecture (Myers, 1999) within the general model called "family business". Therefore, the general model can generate several levels of stewardship attitude.

In both family and non-family firms, medium levels of stewardship attitude produce superior performance, higher risk-taking attitude, higher ownership commitment and a far-sighted orientation. On the other hand, extreme levels (fully-controlled firms, family CEO, captured boards or, at the opposite, widely-held firms, family firms in later generations) lessen performance. In non-family firms, ownership concentration, to a certain extent, improves performance.

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Appendices

Table 1. Family vs. Non-Family: descriptive statistics*

Variables	*Family-owned*			*Non-family*				
	Mean	*Median*	*Std. Dev.*	*Mean*	*Median*	*Std. Dev.*	t-stat	K-W
M/B (F: 400; NF: 188)	1.9287	1.2500	2.1698	2.0951	1.5400	1.9434	2.30**	7.45***
ROA (F: 405; NF: 190)	5.1335%	4.7677%	5.8781%	3.9503%	4.4881%	7.6694%	1.88*	2.81*
ROA ADJ (F: 387; NF: 174)	1.3060	1.1390	1.0884	1.3567	1.1000	1.1486	0.50	0.03
ROE (F: 385; NF: 174)	5.8039%	6.9400%	11.4683%	4.8587%	5.4200%	12.2119%	0.86	2.39
BETA_L (F: 405; NF: 190)	0.8513	0.7700	0.4692	0.8882	0.8780	0.4154	0.921	3.32*
VOL (F: 405; NF: 190)	39.8938%	38.0000%	15.2395%	40.8737%	39.0000%	12.9286%	0.81	2.59
LEVERAGE (F: 401; NF: 187)	1.4024	0.9146	1.8313	1.2512	0.7787	1.5868	1.02	5.91**
SIZE (F: 405; NF: 190)	19.3950	19.3525	1.3307	20.1940	20.0325	1.9548	5.11***	20.31***
SIZE_BOD (F: 402; NF: 183)	9.0174	9.0000	2.9824	9.3552	9.0000	3.2916	1.23	0.59
BETA_UL (F: 404; NF: 190)	0.4972	0.4192	0.3807	0.5660	0.4835	0.3817	2.04**	5.44**
AGE (F: 405; NF: 190)	46.7457	37.0000	33.0396	60.4105	55.0000	46.6551	3.63***	4.42**
VR/CFR (F: 405; NF: 176)	1.3628	1.0000	0.7812	1.3698	1.0000	0.8119	0.10	0.66
VR-CFR (F: 405; NF: 176)	6.2586%	0.0000%	9.3951%	5.3606%	0.0000%	9.2422%	1.07	0.26
CFR (F: 405; NF: 185)	49.1668%	52.7920%	18.6721%	36.1703%	30.5300%	24.5145%	6.41***	46.03***
GROUP (F: 405; NF: 190)	22.7267%	14.2595%	21.4322%	21.1990%	16.6045%	18.6678%	0.89	0.06

* Family-owned: firms in which the family holds a controlling stake. Non-family: all other firms. In the first column: F = number of observations related to family firms; NF = number of observations related to non-family firms. T-stat column reports values of t-student and significance level: * (10%), ** (5%), *** (1%). K-W: Kruskal-Wallis test: χ^2 value and significance level: * (10%), ** (5%), *** (1%). See section 4 for the meaning and the calculation method of each variable. Firm age (AGE), in the table, is expressed as number of years of the firm from its establishment (it is not reported, as employed in regressions, the natural logarithm). VR-CFR expresses the difference between VR and CFR.

Table 2. Family firms: regression models*

	Model 1 (M/B)			*Model 2 (M/B)*			*Model 3 (M/B)*		
Variables	**Coeff.**	**SE**	***t***	**Coeff.**	**SE**	***t***	**Coeff.**	**SE**	***t***
(Constant)	0.2066	1.4572	0.142	0.5463	1.4858	0.368	-0.1711	1.3938	-0.123
FAM_OWN	-0.2252	0.1373	-1.639						
FAM_CEO				-0.2934**	0.1428	-2.054			
FAM_BOD							0.3241	0.2112	1.535
BETA_L	-0.5315***	0.1910	-2.783	-0.5261***	0.1905	-2.762	-0.5557***	0.1856	-2.994
LEVERAGE	0.0373	0.0673	0.554	0.0444	0.0679	0.655	0.0308	0.0674	0.456
ROA	7.5552***	1.4636	5.162	7.6776***	1.4859	5.167	7.2822***	1.4795	4.922
CFR	0.095	0.3883	0.245	0.1684	0.4035	0.417	-0.0137	0.4049	-0.034
VR/CFR	0.073	0.1097	0.665	0.0708	0.1096	0.646	0.0513	0.1080	0.475
SIZE	0.0494	0.0604	0.819	0.0349	0.0633	0.553	0.0626	0.0598	1.046
GROUP	0.3547	0.3055	1.161	0.3613	0.2978	1.213	0.4117	0.2969	1.387
AGE	-0.1681*	0.0998	-1.685	-0.1677*	0.0990	-1.693	-0.1737*	0.0976	-1.78
VOL	1.8079***	0.5385	3.357	1.8340***	0.5357	3.424	1.8406***	0.5285	3.483
HOLDING	0.0538	0.1055	0.510	0.0403	0.1022	0.394	0.0587	0.0994	0.590
Obs.	556			556			556		
R-squared	0.5400			0.5440			0.5418		
Adj. R-squared	0.5072			0.5114			0.5091		
				Model 2a (M/B)					
FAM_CEO				0.0195	0.2629	0.0742			
VR/CFR*FAM_CEO				-0.2432**	0.1156	2.104			
VR/CFR				1.3053	1.0284	1.2693			

* Coeff.: regression coefficient and its significance level: * (10%), ** (5%), *** (1%). SE: HAC standard error of Arellano (2003) for panel data; t: t-student statistic; Obs.: number of observations; R-squared and Adj. R-squared: goodness of fit of model. Model 1 compares family-owned firms (FAM_OWN) with non-family firms; Models 2 and 2a compare family-managed firms (FAM_CEO) with others (family firms with professional CEO, family firms without any family member in the board and non-family firms); Model 3 compares professionally-managed firms (FAM_BOD) with others (non-family firms, family-managed firms and family firms without any family member in the board).

Table 3. Variables testing stewardship theory

Variables	Description
PCG_CODE	Governance profiles: 0 = non-family firms 100 = family-owned firms without family members in the board 110 = professionally-managed family firms 101= family-managed firms
LEVERAGE_MKT	Leverage ratio (market measure)
VR_RANGE	Type of control: 1 = VR ≤ 25% widely-held 2 = 25% < VR ≤ 50% non-majority controlled 3 = 50% < VR < 67% majority-controlled 4 = ≥ 67% fully-controlled
BOD_DUMMY	Board size: number of directors 0 = SIZE_BOD < 8 1 = 8 ≤ SIZE_BOD ≤ 10 2 = SIZE_BOD > 10
AGE_RANGE	Firm age (generational stages in family firms) 1= AGE 0-30 years (1st generation) 2= AGE 31-60 years (2nd generation) 3= AGE 61-90 years (3rd generation) 4= AGE 91-120 years (4th generation) 5= AGE > 120 years (5th generation)

Table 4. Results of stewardship theory testing (ST-HP1 through ST-HP4 + ST-HP6)

PANEL A. Family-owned firms (380 observations)

Test Statistics(a,b)

	BETA_UL	M/B	ROA	ROA ADJ	ROE
Chi-Square	3.570	1.638	1.233	0.868	1.939
df	3	3	3	3	3
Asymp. Sig.	0.312	0.651	0.745	0.833	0.585

a. Kruskal Wallis Test

b. Grouping Variable: VR_RANGE

PANEL B. Non-family firms (181 observations)

Ranks

	VR_RANGE	N	Mean Rank		VR_RANGE	N	Mean Rank
BETA_UL	1.00	47	74.89	ROE	1.00	46	85.75
	2.00	54	91.13		2.00	53	98.08
	3.00	53	112.11		3.00	53	92.79
	4.00	27	77.33		4.00	27	75.91
	Total	181			Total	179	
M/B	1.00	47	85.14	LEVERAGE	1.00	47	126.74
	2.00	54	99.58		2.00	53	85.95
	3.00	53	106.31		3.00	53	67.83
	4.00	27	53.98		4.00	27	80.83
	Total	181			Total	180	
ROA	1.00	47	86.78	LEVERAGE_MKT	1.00	47	122.66
	2.00	54	97.80		2.00	53	83.91
	3.00	53	99.14		3.00	53	67.70
	4.00	27	68.78		4.00	27	92.22
	Total	181			Total	180	
ROA ADJ	1.00	45	82.89				
	2.00	51	95.71				
	3.00	47	82.71				
	4.00	25	67.90				
	Total	168					

Test Statistics(a,b)

	BETA_UL	M/B	ROA	ROA ADJ	ROE	LEVERAGE	LEVERAGE_MKT
Chi-Square	14.885	20.046	7.356	5.731	3.750	34.120	28.943
df	3	3	3	3	3	3	3
Asymp. Sig.	0.002	0.000	0.061	0.125	0.290	0.000	0.000

a. Kruskal Wallis Test

b. Grouping Variable: VR_RANGE

PANEL C. Non-majority-controlled family and non-family firms

Ranks

	PCG_CODE	N	Mean Rank		PCG_CODE	N	Mean Rank
BETA_UL	0.00	54	82.59	ROE	0.00	53	71.77
	101.00	71	61.90		101.00	71	71.10
	110.00	20	86.50		110.00	20	79.40
	Total	145			Total	144	
M/B	0.00	54	86.88	LEVERAGE	0.00	53	51.77
	101.00	71	54.75		101.00	71	92.30
	110.00	20	100.33		110.00	20	57.15
	Total	145			Total	144	
ROA	0.00	54	71.96	LEVERAGE_MKT	0.00	53	51.09
	101.00	71	70.28		101.00	71	94.80
	110.00	20	85.45		110.00	20	50.05
	Total	145			Total	144	
ROA ADJ	0.00	51	76.17				
	101.00	71	62.26				
	110.00	18	86.94				
	Total	140					

Test Statistics(a,b)

	BETA_UL	M/B	ROA	ROA ADJ	ROE	LEVERAGE	LEVERAGE_MKT
Chi-Square	9.840	27.780	2.088	6.885	0.644	31.785	40.048
df	2	2	2	2	2	2	2
Asymp. Sig.	0.007	0.000	0.352	0.032	0.725	0.000	0.000

a. Kruskal Wallis Test

b. Grouping Variable: PCG_CODE

PANEL D. Majority-controlled family and non-family firms

Ranks

	PCG_CODE	N	Mean Rank		PCG_CODE	N	Mean Rank
BETA_UL	0.00	53	162.30	ROE	0.00	53	116.25
	101.00	171	119.84		101.00	170	131.09
	110.00	36	134.33		110.00	36	145.10
	Total	260			Total	259	
M/B	0.00	53	158.80	LEVERAGE	0.00	53	98.51
	101.00	171	123.76		101.00	171	138.27
	110.00	36	120.85		110.00	36	140.67
	Total	260			Total	260	
ROA	0.00	53	126.37	LEVERAGE_MKT	0.00	53	91.40
	101.00	171	130.61		101.00	171	140.19
	110.00	36	136.08		110.00	36	142.03
	Total	260			Total	260	
ROA ADJ	0.00	47	117.48				
	101.00	166	125.11				
	110.00	36	134.31				
	Total	249					

Test Statistics(a,b)

	BETA_UL	M/B	ROA	ROA ADJ	ROE	LEVERAGE	LEVERAGE_MKT
Chi-Square	13.011	9.476	0.359	1.114	3.286	12.078	18.018
df	2	2	2	2	2	2	2
Asymp. Sig.	0.001	0.009	0.836	0.573	0.193	0.002	0.000

a. Kruskal Wallis Test

b. Grouping Variable: PCG_CODE

Table 5. Results of stewardship theory testing (ST-HP5 + ST-HP7)

PANEL A. Family-owned firms

Ranks

	AGE_RANGE	N	Mean Rank		AGE_RANGE	N	Mean Rank
M/B	1.00	168	220.51	SIZE_BOD	1.00	168	170.79
	2.00	105	206.10		2.00	105	184.92
	3.00	66	162.51		3.00	66	251.94
	4.00	37	142.41		4.00	36	221.76
	5.00	15	130.33		5.00	15	234.97
	Total	391			Total	390	
ROA	1.00	168	203.06	VR/CFR	1.00	168	163.62
	2.00	105	213.06		2.00	105	195.10
	3.00	66	166.11		3.00	66	208.39
	4.00	37	166.14		4.00	37	276.24
	5.00	15	202.73		5.00	15	312.53
	Total	391			Total	391	
ROA ADJ	1.00	160	198.23	VR	1.00	168	202.76
	2.00	103	202.32		2.00	105	211.80
	3.00	62	148.23		3.00	66	199.07
	4.00	36	171.90		4.00	37	137.00
	5.00	15	196.17		5.00	15	141.70
	Total	376			Total	391	

Test Statistics(a,b)

	M/B	ROA	ROA ADJ	SIZE_BOD	VR/CFR	VR
Chi-Square	27.929	10.303	12.374	29.811	51.407	16.251
df	4	4	4	4	4	4
Asymp. Sig.	0.000	0.036	0.015	0.000	0.000	0.003

a. Kruskal Wallis Test

b. Grouping Variable: AGE_RANGE

PANEL B. Correlation between VR_RANGE and BOD_DUMMY (non-family firms)

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	-0.260	0.063	-4.116	0.000
	Kendall's tau-c	-0.271	0.066	-4.116	0.000
	Gamma	-0.367	0.086	-4.116	0.000
N of Valid Cases		175			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

PANEL C. Correlation between PCG_CODE (101 and 110) and BOD_DUMMY (family-owned firms)

Symmetric Measures

		Value	Asymp. Std. Error(a)	Approx. T(b)	Approx. Sig.
Ordinal by Ordinal	Kendall's tau-b	0.169	0.047	3.448	0.001
	Kendall's tau-c	0.141	0.041	3.448	0.001
	Gamma	0.395	0.103	3.448	0.001
N of Valid Cases		377			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

PANEL D. Test of ST-HP5a and ST-HP5b

Family-managed firms

Ranks

	BOD_DUMMY	N	Mean Rank		BOD_DUMMY	N	Mean Rank
M/B	0.00	110	146.28	ROA ADJ	0.00	107	131.67
	1.00	132	159.72		1.00	129	162.87
	2.00	76	178.24		2.00	71	171.53
	Total	318			Total	307	
ROA	0.00	110	127.47	ROE	0.00	110	126.65
	1.00	132	166.65		1.00	131	161.18
	2.00	76	193.45		2.00	76	202.07
	Total	318			Total	317	

Test Statistics(a,b)

	M/B	ROA	ROA ADJ	ROE
Chi-Square	5.433	24.511	10.826	30.557
df	2	2	2	2
Asymp. Sig.	0.066	0.000	0.004	0.000

a. Kruskal Wallis Test

b. Grouping Variable: BOD_DUMMY

Fully-controlled non-family firms

Ranks

	BOD_DUMMY	N	Mean Rank		BOD_DUMMY	N	Mean Rank
M/B	0.00	17	10.79	ROA ADJ	0.00	15	8.73
	1.00	4	12.63		1.00	4	14.75
	2.00	1	19.00		2.00	1	20.00
	Total	22			Total	20	
ROA	0.00	17	9.71	ROE	0.00	17	9.47
	1.00	4	16.50		1.00	4	18.75
	2.00	1	22.00		2.00	1	17.00
	Total	22			Total	22	

Test Statistics(a,b)

	M/B	ROA	ROA ADJ	ROE
Chi-Square	1.657	6.284	5.980	7.364
df	2	2	2	2
Asymp. Sig.	0.437	0.043	0.050	0.025

a. Kruskal Wallis Test

b. Grouping Variable: BOD_DUMMY