

Ownership and Performance in the Italian Stock Exchange: The Puzzle of Family Firms *

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Abstract

We present new evidence on the relationship between ownership, control and performance in family firms, by using a sample of Italian publicly listed companies from 2000 to 2017. We account for the potential self-selection bias of family firms with an endogenous treatment selection model. We do not find consistent evidence of a performance premium of Italian family firms or family CEOs as family firms achieve superior profitability, but lower market to book ratios. Interestingly, however, firm value is negatively impacted when the high controlling shares are disjointed from family ownership and when the family CEO is also Chair of the board. We also find that the equity stake is significantly lower when the CEO is a member of the controlling family, suggesting a trade-off between ownership and control within family firms.

Keywords: Family firms, Corporate governance and control, Firm ownership.

JEL codes L20, G32

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1. Introduction

This paper presents new evidence on the changes in corporate ownership and governance of Italian publicly listed firms in the XXI century. We focus on “family firms” tracking, from 2000 to 2017, their ownership structure, governance positions, accounting and market performance and CEO parental ties with the controlling shareholder. The main research question of this paper deals with the relationship between family firms’ ownership and performance, which we analyze by estimating first the determinants of family ownership, then the effect of family ownership on firm performance and, finally, by accounting for the self-selection component of the endogeneity in this relationship.

By focusing on the ownership and control structures of a sample of firms within a single country that is subject to a given legal regime (i.e. a French Civil law system), we do not have to control for the potential that country-specific laws, financial institutions and cultures allow to owners for expropriation of non-controlling shareholders. Country specific factors indeed influence to a great extent both the choice of the family to retain the controlling stake, the size of this stake, and the decision to appoint a family CEO as well as the compensation policy (La Porta, et al., 1999, Kumar and Zattoni, 2013, Elston, 2019). All firms in our sample face exactly the same investor protection laws and the same institutional and cultural environment but have nonetheless chosen to adopt very different governance structures and compensation policies.

Italian economy is known for being characterized by a very large number of small and medium companies owned by individuals or, more typically, by “families” that often descend from the firm’s founder, and managed by members of the controlling family. We define family firms as those which are majority-controlled by individuals related by blood or marriage. In the construction of our data, we paid special attention in identifying the firm’s founder (many listed Italian firms are very old and were founded in the XIX century), the founder’s role in the firm or in the directors’ board (if still living), and the parental ties of the CEO with the controlling shareholder or the founder.

Although family firms are relevant in other industrialized economies as well (Morck, Wolfenzon and Yeung, 2005), the peculiarity of Italy is that family firms are also dominant in the public equity market, and that this dominance is stable and long-lasting over time (Abrardi and Rondi, 2020). This feature makes Italy an excellent research case to analyze the effectiveness of corporate governance mechanisms in the protection of minority shareholders’ interests. For example, as reported by CONSOB (2018), the Italian authority supervising the stock exchange, in 2017, the average share of the largest shareholder was 47.7% while the aggregate share of the other “relevant” shareholders (i.e. those with an interest of at least 2% in the company, including institutional investors) was about 12%. Evidently, the typical ownership structure of Italian quoted firms does not favor the formation of block-holders large enough to threaten the controlling shareholder or to play a

relevant role in monitoring the administration of the firm. Hence, it is unlikely that the “second largest” shareholder can play the monitoring role that is often invoked by the corporate governance literature. In the absence of a potentially effective “second largest” shareholder, institutional investors are often viewed as a monitoring corporate governance mechanism (Crocì et al, 2012), provided they are “active”. In Italy, institutional investors have entered the equity market only recently (for example, pension funds are still very rare) and in a limited amount, but their role has been growing over time. Anecdotal evidence in the financial press suggests that institutional investors in Italy have sometimes acted as a disciplining mechanism. The database constructed for this research includes data on the presence (binary variable) and on the aggregate equity share of institutional investors from 2000 to 2017, thus allowing us both to track their evolution over time and their impact on firm performance.

We are aware that the relationship between ownership and performance is ridden by endogeneity and self-selection problems that cannot be easily solved. In the case of quoted firms, in which the owner is understood to gradually release his initial stake (Pagano and Roell, 1998) and perhaps to keep the firm’s control via alternative methods of separation (Bianchi, Bianco, Enriques, 1999), it may be surprising to find that, in Italy, the largest shareholder persistently holds a stake above the legal majority of 50%. Indeed, as remarked by Himmelberg, Hubbard and Palia (1999), both managerial ownership and performance are endogenously determined by exogenous (and only partly observed) changes in the firm’s contracting environment. The notion of contracting environment is wide, encompassing the quality of the national governance system and of the firm’s internal governance, the incentives and the constraints to expropriation activities by the firm’s insiders, the responsiveness of the financial market (in a listed firm, a poor performance or apparent rent extraction should be punished and the poor performers should be ousted) and, ultimately, the motivations behind the choice of keeping a large controlling share in the family business and to appoint a family CEO rather than a professional manager. Our approach is at first explorative, by comparing family and non-family firms under several points of view, such as the ownership structure, the capital structure, the attractiveness towards institutional investors, the adoption of various control-enhancing mechanisms, the dividend policy, and the choice of the primary industry (e.g. R&D intensive, subject to foreign competition, etc.). All these features then contribute to determine the relationship between firm’s ownership, control and performance in the econometric analysis, controlling for the observable firm- and industry-specific component of cross-firm heterogeneity. We control for the remaining unobserved component by including firm fixed-effects and, finally, by accounting for self-selection of families in or out of firms with a treatment effects model.

The econometric analysis contributes several findings. First, family ownership is more likely in manufacturing firms (*vis-à-vis* services), in less concentrated industries and in sectors where R&D

intensity is low. We do not find consistent evidence of a performance premium of Italian family firms or family CEOs. Indeed, family firms appear to achieve superior profitability, but lower market to book ratios, thus suggesting that the stock market evaluates family ownership with a “discount”. The discount is higher when the family CEO is also Chair of the board. Interestingly, however, firm value appears negatively impacted when the high controlling share is not connected to family ownership so it is possible that the market discount would be lower if the family held the company with a lower share. We also find that the equity stake is significantly lower when the CEO is a member of the controlling family, suggesting a trade-off between ownership and control within family firms.

The paper starts by referring our paper to the vast literature of family ownership and performance in Section 2. We then describe the dataset (Section 3), and the main features of Italian listed family and non-family firms’ ownership structure, corporate governance, and performance (Section 4). In Section 5, we investigate the determinants of family ownership and we analyze the relationship between firm performance and family ownership, controlling for the characteristics of the firm’s contracting environment. Finally, in Section 6, we discuss the results and propose further research avenues.

2. Literature

Whether family ownership is associated to higher or lower firm value is an open empirical question. Family firms appear to underperform relative to nonfamily firms in many countries: for example, among large U.S. corporations, Holderness and Sheehan (1988) find that family firms have a lower MTB than non-family firms. Also, Bloom et al. (2005) find that family firms in France, Germany, Great Britain and the United States are systematically associated with worse managerial practices. In other economies, the evidence is scarce but mixed (Morck, Stangeland, and Yeung, 2000 for Canada; Claessens, Djankov, Fan, and Lang, 2002 for several southeast Asian countries; Cronqvist and Nilsson, 2003 for Sweden). Conversely, Sraer and Thesmar (2004) find a premium for family firms in France, and Franks et al. (2009) extend this result to Continental Europe. Berzins et al. (2018) reach a similar conclusion in Norway focusing on limited liability firms. Anderson and Reeb (2003), find that S&P 500 family firms outperform non-family ones. Finally, Khanna and Palepu (2000) find a performance premium for business groups in India, which are for the most part family-controlled. Several, countervailing factors impact the performance of family firms, and can explain the mixed evidence above.

Family firms emerge as a rational response to the institutional and market environment, hence they are more profitable than non-family ones, in countries with weak legal structures, where

entrusting a family member can substitute missing governance and contractual enforcement (Burkart, Panunzi and Shleifer, 2003). However, it should be noted that family firms are widespread also in countries (such as US or Sweden) where there is limited scope for expropriation (Gilson, 2005). Moreover, Claessens, Djankov, Fan and Lang (2002) show that family firms underperform relative to nonfamily firms, and even other group firms, in several Southeast Asian countries that score relatively low on the investor protection index. Hence investor protection can only partially explain the adoption of family-controlled ownership structure.

Indeed, families might serve as a capital pooling device in countries where capital markets are very illiquid and where it is difficult to raise large amounts of money to start a company (Bertrand and Schoar, 2006). Miller, Le Breton-Miller, and Lester (2012) recently argued that family controlled firms enjoy a greater freedom from financial markets to pursue different strategies compared to their industry peers, due to the higher legitimacy they usually enjoy.

Another source of comparative advantage for family firms is the fact that the transmission of business-specific knowledge is easier between a founder and his heirs. For example, family members may receive exposure to the business even before becoming formally involved in it. Then, family managers might be endowed with superior talent than professional managers.

Ownership concentration provides to individual and family shareholders the clout and the incentives to monitor the manager, because their own wealth is at stake. As a consequence, the typical agency problem is mitigated in family firms. Claessens et al. (2002) provide comparative evidence that is consistent with this argument: they find that the positive impact of controlling shareholder ownership on firm value is primarily driven by family shareholder ownership. In addition, in most family firms, managers are significant owners themselves, thereby eliminating the conflict between owners and managers (La Porta, Lopez-De-Silanes & Shleifer, 1999; Claessens, Djankov and Lang, 2000; Volpin, 2002; Anderson and Reeb, 2003; Villalonga and Amit, 2006). While the classical agency problem between owners and managers is in principle mitigated by the principal's monitoring in family firms, in practice the "family" effect has at least three different dimensions, whether we consider the firm's ownership, management and control (in excess of ownership rights). Villalonga and Amit (2006) show that family ownership per se creates value, while family control in excess of ownership, such as when control-enhancing mechanisms are in place, destroys value, although the overall effect is positive. However, quite importantly, they also show that these effects appear to be dominated by the identity and family ties of management. Founder-led firms outperform nonfamily businesses, whereas descendant-led firms underperform.

Family-controlled firms embrace a longer-term approach to management, thanks to the long-term affective commitment of steward-owners towards their companies (Le Breton-Miller & Miller,

2009; Miller, Le Breton-Miller, & Scholnick, 2008). Widely-held corporations, in contrast, are often associated with short-termism and myopia of corporate managers.

Families are unique in maintaining valuable implicit contracts with stakeholders, particularly their employees (Sraer and Thesmar (2007), Bach and Serrano-Velarde (2009), and Mueller and Philippon (2011)). This argument is supported by empirical evidence provided by Sraer and Thesmar (2007) for French listed companies, whose heir managers seem to be smoothing out employment across the business cycle. These arrangements function as long-term implicit insurance contracts, which allow family firms to pay lower wages for better skills. Family owners and managers also frequently develop relational trust with business partners, which gives them a privileged access to constrained resources (Berrone et al., 2012).

On the negative side, different factors may have an adverse effect on the relative performance of family firms, compared to non-family ones. Families are typically less diversified than other types of shareholders, hence they may exhibit excessive risk aversion. As a consequence, family managers are more likely to forego profitable projects or strategies and undertake less risky investments (Faccio, Marchica, and Mura's, 2011; Heaney and Holmen, 2008). Rondi and Elston (2009) find that, in Italy, high inside ownership is a response to weak investor protection of the country, but leads to lower capital accumulation and firm growth. Under-diversification also results in a bias toward survival-oriented actions that help preserve the family business at the expense of outside shareholders. Indeed, Lins, Volpin and Wagner (2013) show that family firms act more conservatively during a crisis that can threaten the survival of the family empire.

Moreover, family control may be socially inefficient whenever it leads to entrenchment and is used to tunnel capital and resources away from minority shareholders (Thomsen and Petersen 2000; Claessens et al., 2002). The extraction of private benefits of control is easier in family firms not only for the concentrated ownership, but also because the family, being a homogeneous group of individuals who know each other well and share the same values, can easily coordinate against the interests of minority shareholders (Villalonga and Amit, 2006). The conclusion that family firms are subject to a higher risk of diversion of shareholder value is also supported by the high pay-for-performance contracts paid to family CEOs (Abrardi and Rondi, 2019). The problem of private benefits extraction is especially severe during a negative shock, such as a financial crisis: Lins, Volpin and Wagner (2013) show that family-controlled firms with high expected agency costs underperform relative to other firms during the crisis by 2.0 to 3.3 percentage points, while no such effect is found for family firms with low expected agency costs.

Founders or heirs might have non-monetary objectives and be willing to forego financial returns in order to maximize their utility, which accounts for cultural and family values, with

detrimental effects on the family business (Bertrand and Schoar, 2006). For example, family-controlled firms might create efficiency distortions if founders put excessive weight on keeping the business in the family, possibly because of their desire to turn the business into a family legacy (Fukuyama, 1995). Similarly, Bertrand, Johnson, Samphantharak and Schoar (2005) document the tendency to divide the assets of the group between the heirs in Thailand, in accordance with culturally set inheritance norms, even at the cost of performance.

The familism takes also the form of choosing relatives as key manager, or handing over of management and control from the founder to his or her descendants, ultimately hindering the firm's performance and growth (Perez-Gonzalez, 2004, Villalonga and Amit, 2006; Morck, Stangeland and Yeung, 2000). Smith and Amoako-Adu (1999) and Pérez-González (2001) find that family descendant-CEOs destroy shareholder value not just relative to founders but also relative to non-family managers. The underperformance of family-managed firms appears to be more severe in competitive markets (Cucculelli et al. 2008 in Italy) and in younger firms, due to the learning process of family CEOs (Cucculelli et al., 2014).

The likely presence of powerful CEOs in family firms is also associated to the under-diversification of the risk arising from judgement errors (Adam et al., 2005). In fact, decisions with extreme consequences are more likely to be taken when the CEO is influential than when many executives are involved in the decision-making process, hence family firms might be characterized by a higher volatility of performance.

3. *The dataset*

Our dataset includes the original population of non-financial firms quoted in the "Industrial Companies" segment of Italian stock exchange from 2000 to 2017.³ To construct the firm- and industry-level variables used in the empirical analysis we used multiple sources.⁴ Our final dataset is an unbalanced panel of 155 non-financial publicly listed firms.

Ownership information. The "corporate economy" in Italy mainly consists of either family businesses or state-controlled firms that were partially privatized starting from late Nineties and early 2000s' and the stock exchange reflects this ownership structure. Therefore, our panel includes several public utility companies partially owned by the state or local government (e.g. municipalities), many

³ We excluded firms with less than four continuous years of accounting data.

⁴ Balance sheet, dividends and stock exchange data are collected from three annual directories, *Le Principali Società*, *Indici e Dati* and *Il Calepino dell'Azionista*, all published by Mediobanca, a large Italian investment bank (www.mbres.it). Information about firms' ultimate ownership, corporate governance, family ties of the CEO group affiliation, location, age, business activity and primary industry at 3-digit NACE classification was obtained from company annual reports and websites, CONSOB (the Italian authority supervising the equity markets), Borsa Italiana (the Italian stock exchange), DUN's and Bradstreet and other directories.

“family” firms and a number of companies owned by private investors who do not reach, individually, the legal majority of 50% stake. In most of the empirical analyses we thus focus on “private” firms, i.e. firms owned by private investors, thereby excluding state-controlled firms and public utilities that typically operate in regulated network industries.⁵ Within the sub-sample of “private” firms, we then distinguish between “family” firms and other private non-family firms that cannot be identified as belonging to a family group on the basis of the controlling share. To calculate the firm’s controlling share and to identify “family” ownership, we used information by CONSOB about the identity of all investors with more than 2% of the voting shares, on the largest individual shareholder and on the components of board of directors and we collected information about the investors’ parental ties with the largest shareholder. A “*family firm*” is one where either the largest individual shareholder (direct “ultimate owner” of the ownership stake, according to CONSOB’s definition) or a group of individual shareholders belonging to the same family have more than 50% of the equity shares. We used 50% as the cut-off value to define a “family” owned firm because ownership is highly concentrated and stable in Italy. We use the Consob’s information about equity shares of the largest shareholder or of family-related shareholders to construct the variable *controlling share*.

Corporate governance variables. The corporate governance literature suggests that institutional investors play a disciplining role on compensation policy (Crocì, et al. 2012, Fernando et al. 2013). Therefore, to complement information on firms’ ownership structure, we also constructed the institutional investor share (*inst_share*), defined as the total equity share held by institutional investors with an equity share greater than 2%, and *instinv*, a binary variable denoting the presence of mutual or investment funds with more than 2% of the shares. Additional variables were collected to control for the internal corporate governance of the firms and, particularly, to account for alternative mechanisms of ownership control separation. So, *dual* is a dichotomous variable equal to 1 when the firm issues dual-class shares (voting and non-voting shares) and *coalition*, a dummy equal to one when the firm reports (under strict rules by CONSOB) a “voting pact”, i.e. an agreement among few shareholders to stabilize, secure and somehow enhance the exercise of control (Bianchi et al. 1999). Finally, the binary variable *star*, denotes whether the firm is listed in the special Stock Exchange segment that has more stringent requirements on corporate governance, transparency and information disclosure.

CEO-level variables. We collected data about the CEO, the firm’s founder and other members of the controlling family from company annual reports. Starting from the CEO identity, we tracked whether the CEO is also the largest shareholder or a member of the controlling family group (based

⁵ Indeed, state-controlled firms and public utilities typically operate in regulated industries and pursue policy-related objectives which may affect their performance as well as the financial response by the financial market (see for example Cambini and Rondi, (2016, and Bremberger et al., 2017).

on the CEO's surname or on direct or indirect parental ties as obtained from the press or the news on the web/internet) and we defined accordingly the *famceo*, distinguishing between the case of family CEO who is also the founder of the firm (*founder_CEO*), or just a descendant (*famceo_NoFounder*). Moreover, the dummy *CEO_Chair* specifies that the CEO is also Chair of the Directors' Board, a situation that provides a power excess in the hands of the CEO and a potential risk of expropriation for minority shareholders when the CEO is a member of the controlling family. Other variables cover further CEO characteristics. *CEO Tenure*, the number of years the CEO has been in charge, controls for CEO experience, but also for potential managerial entrenchment, since a longer tenure may ensure internal power (Bebchuk and Fried, 2004). *CEO Turnover* takes value 1 when a new CEO is appointed. Finally, *CEO pay* covers the CEO's total compensation (salary, bonus, non-monetary benefits and other compensation) and *stockOption* denotes the presence of a stock options plan for the CEO.

Profitability and market value. Turning to firm-level variables, we use the Return on Assets (*ROA*, the ratio between EBITDA and total assets) to measure the firm's accounting profitability and the *Market-to-Book ratio* or *MTB* (defined as (book value of total asset – book value of equity + market capitalization)/book value of total assets) to measure firm value. While the *ROA* is a measure of how efficiently the CEO uses the assets, regardless of the capital structure, *MTB* allows for a market-based measure of firm value by comparing the book (i.e. accounting) value to the market value, i.e. a valuation based on the market perceptions of the present and future growth and profit opportunities.⁶ The log of real total sales (*lrsales*) is used to measure firm size. The asset *tangibility* ratio (the ratio between fixed assets and total assets) accounts for the fact that tangible assets mitigate agency problems, being easy to monitor and good as collateral. *Debt_f_ta* is our proxy for financial leverage, i.e. the ratio of long and short-term financial debt over total assets, while *div_sales* and *div_ta* are the ratio of total dividends to firm sales and to total assets, respectively, to measure the extent to which the controlling shareholders tend to distribute or retain the free cash-flow. *ROA_sd* is the standard deviation of annual ROAs to measure the volatility of firm profitability. Finally, *firm_age* is the number of years since its foundation, because the founders may release control over time, the heirs may gradually cash out over time and older firms may be more inclined to revert to a professional CEO, if none of the firm's founder descendants is available to run the family business.

Industry-level control variables. The data also include industry specific variables. *ROA_ind* is the industry-level ROA profitability ratio (Ebit/total assets) which may be used as a benchmark for

⁶ In the literature studying the relationship between firm ownership, performance and value, many studies rely on the ROA as a measure of accounting profitability and the market-to-book ratio to proxy for firm value. Among the most influential papers, see Himmelberg, Hubbard and Palia (1999), Adams et al. (2005), Villalonga and Amit (2006), Miller et al. (2007), Sraer and Thesmar (2007).

the owner's decision to keep or release the firm's control. The binary variable *typer* denotes whether the firm's primary activity is in an R&D intensive industry based on NACE 3-digit UK industry data on R&D and advertising to sales ratios (see Davies et al., 1996, Table A2.1, pp. 258-260), to account for "soft" capital and skills required by the primary activity and for higher information asymmetry on the capital markets. The variables *import* and *manuf* are dummies equal to 1 if the firm's primary industry is subject to high import penetration or is manufacturing, respectively. Finally, *cr5* is a binary variable that identifies industries with 5-firm concentration ratio above the average (we obtain the sectoral CR5 ratios from annual reports of ISTAT the Italian National Statistics Institute). For a description of the variables, see Table 1. In Table 2, we provide the summary statistics for the full sample while in Table 3 we separate the sub-sample of private (i.e. not controlled by the State, either national or local government) between family and non-family firms (i.e. where the largest shareholder has less than 50% of the equity) as well as between family and non-family CEOs.

4 *Corporate ownership and governance of Italian publicly listed firms (2000-2017). A descriptive analysis*

Firm ownership has always been –and continues to be– highly concentrated in Italy. Family firms are the prevailing ownership model in the Italian landscape. In 2017, family firms represent the 69.3% of all private firms in our dataset. Figure 1 represents the evolution of ownership and control structures of Italian listed firms from 2000 to 2017.

The role of family firms in the public equity market

The fraction of family firms over all private firms, represented in panel (a) of Figure 1, seems to have decreased over the last two decades. Such a trend can be attributed to the fact that the number of private firms increased more rapidly than the number of family firms, i.e. new private firms were more likely to be of the non-family type.

Panel (b) of Figure 1 focuses on family firms and shows the fraction of them with a family CEO. In 2017, 52,7% of family firms have a CEO belonging to the family. Although this value is high in absolute terms, a look to the data on the longer term seems to suggest a decreasing trend, as the fraction of family firms with a family CEO was nearly 70% in the year 2000, with a marked drop after the 2008 crisis. However, when looking at panel (c), the lower share of family firms with a family CEO appears to descend more from a variation in the number of family firms with external CEOs, rather than from the number of those with family CEOs. In fact, the number of family firms with a family CEO seems relatively stable over time.

Ownership structure: The stability of controlling shares

To measure the controlling share, we identified the share of the largest relevant (according to Consob's definition) shareholder and, whenever two or more relevant shareholders could be associated by blood or marriage, we added up the respective stakes (thus identifying the controlling share of the "family"). Panels (d) and (e) of Figure 1 confirm the usual narrative about Italian firms, and, precisely, that they are still controlled through very large equity stakes ("public corporations" à la Berle and Means, 1932 are very difficult to find in Italy), that the presence of the State as a shareholder, either at the national or local level, is still strong and that private investors (mostly "families") steadily hold tight the control of their firms.

However, panel (d) also tells us that the Government gradually released fractions of the equity in state-controlled companies (mainly public utilities) and that the so-called "privatization" process (i.e. the sales of shares held by the Government) is still going on. In this case, privatization is perhaps inappropriate, since the Government tightly keeps a larger than 30% stake in these firms.

In panel (e) we show the trend of the controlling share in family and (private) non-family firms. The figure clearly justifies our decision to choose a threshold of 50% to define family firms. Indeed, if we had chosen 30%, all firms in the Italian stock exchange would be family businesses. Interestingly, we find that the (average) controlling share of family firms is never less than 60%, while the controlling stake in non-family firms appears to be increasing over time.

Ownership structure: The changing role of institutional investors

Panel (f) shows that institutional investors have reduced their presence in recent years across all type of firms. Over time, institutional investors appear to invest in a lower number of firms, although we have a larger share, on average, as shown by panel (g). This suggests that institutional investors have lately curtailed dispersed financing, rather preferring to concentrate their investments. An alternative explanation could be mutual funds and the likes follow a herd behavior in the investment decisions, whereby they look at each other and ultimately prefer to invest in the same firms.

Separation between ownership and control

The use of instruments that introduce a separation between ownership and control is relatively widespread in Italy (Bianchi et al., 2006). However, the fraction of firms with a dual-class share structure (panel (h)) and the number of shareholders' agreements (panel (i)) have steadily decreased over time, thus indicating a better alignment between ownership and control. The decrease of shareholders' agreements is especially marked in family firms, thus suggesting that family firms are

sensitive to the agency problem with minority shareholders, and how they are perceived by the financial markets. On the other hand, panel (l) shows that the fraction of firms with CEO-chair duality is high and it has increased in the last years, which is indicative of a situation of severe centralization of decision-making powers in family firms that already have the legal majority of voting rights.

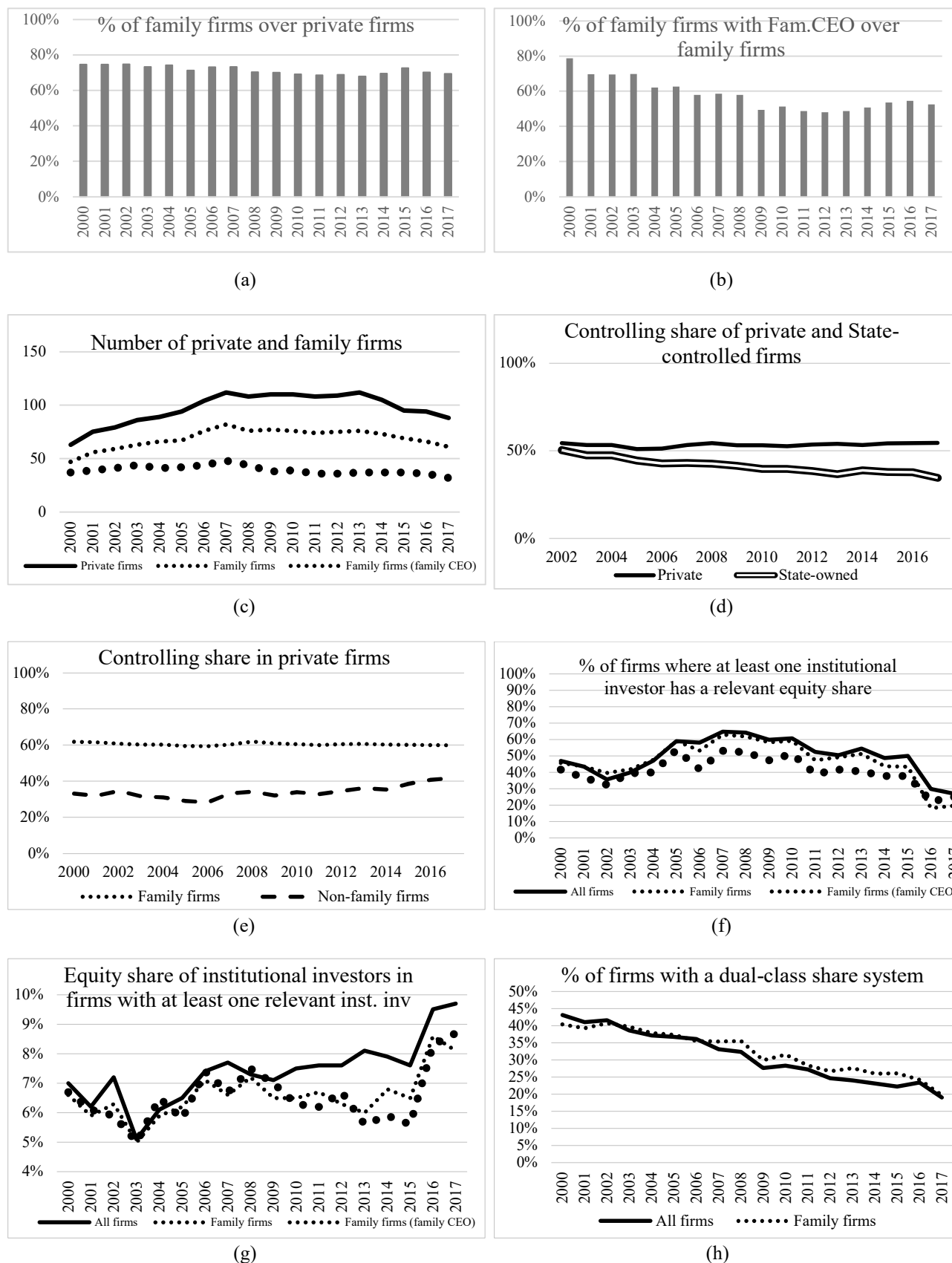
Firm performance (ROA, MTB, dividends)

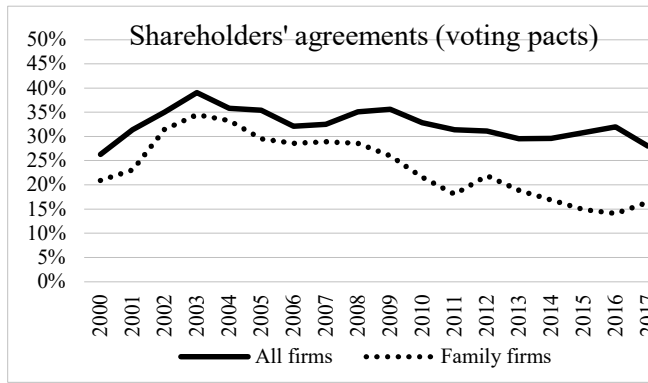
When family firms are compared to non-family firms on performance measures, they clearly exhibit a different ability to deal with the crisis. Panel (m) shows that family firms perform better than non-family firms in terms of ROA before 2008, while the reverse is true after the crisis deflagrated in 2008. Non-family firms seem to be better able to stand up in front of negative exogenous shocks. However, family and non-family firms seem to differ also in terms of volatility of performance. The ROA of family firms (panel (m)) fluctuates over the range of (roughly) 8-12%, while the ROA of non-family firms varies between 4 and 14%. The pattern is similar, if not more pronounced, when looking at the MTB in panel (n) (as it varies, between 1 and 3 within family firms, and between 1 and 8 in non-family). On the other hand, family firms appear to distribute higher (and more volatile) dividends than non-family firms (panel (q)), in relation to the total assets, though the dividend to sales ratios are more similar between the two groups and less volatile for family firms. (panel (r)).

Focus on family CEOs

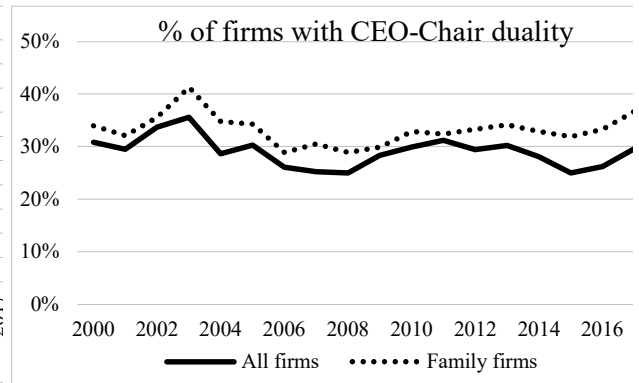
Overall, the data suggest that family firms are less impacted by exogenous shocks, compared to non-family firms. By observing the data, a question arises. Is the different performance between family and non-family firms due to their different level of ownership concentration, or is it rather a consequence of the different type of control that prevails in family firms? About half of the family firms hire a family CEO, an option which is precluded to non-family firms. In order to provide an answer to this question, we look at the performance of family firms by type of CEO. In panel (o), the average ROA is represented for family firms with either a family or an external CEO. Family firms with a family CEO seem to achieve consistently lower ROA than those with an external CEO, however there do not seem to be marked differences in terms of volatility of ROA. This could indicate that the volatile results of non-family firms, relative to family firms, might be caused by their different ownership structure, rather than by their external professional management. Results are confirmed also by the performance in terms of market value in panel (p), although in this case the performance gap between family CEOs and external CEOs is narrower, especially in the last few years.

Figure 1: Ownership and performance of Italian family firms

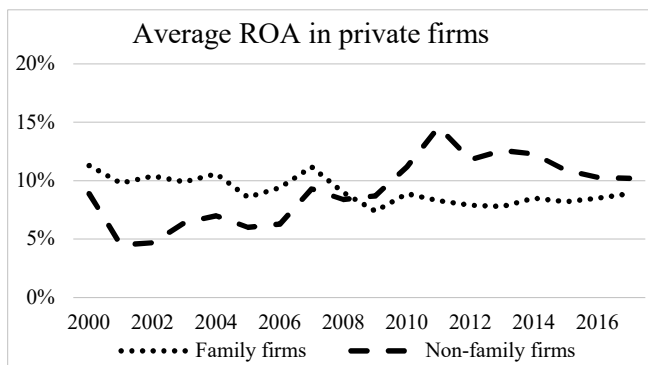




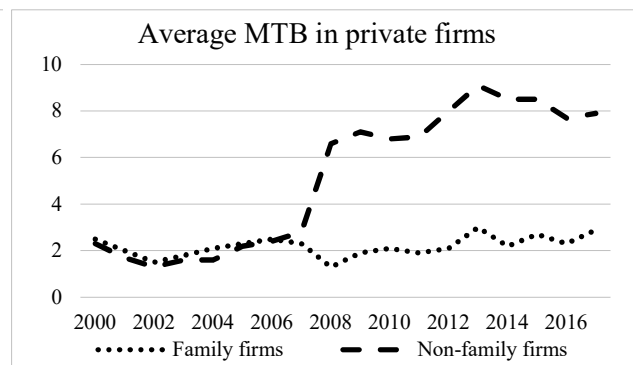
(i)



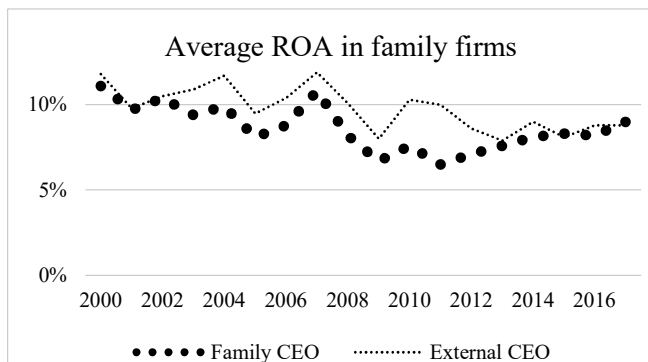
(l)



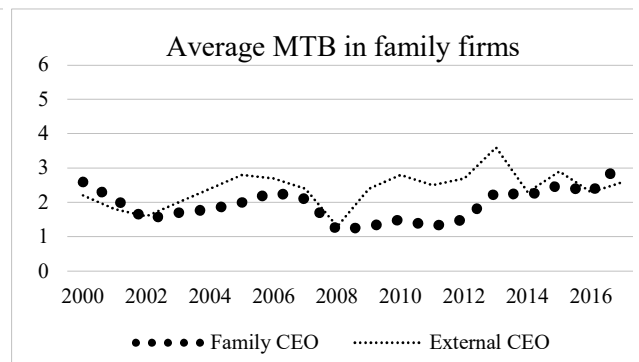
(m)



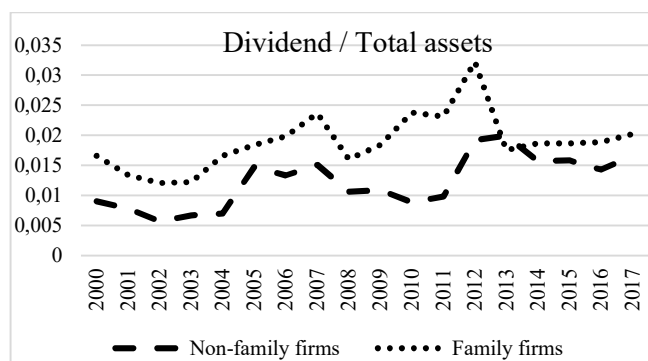
(n)



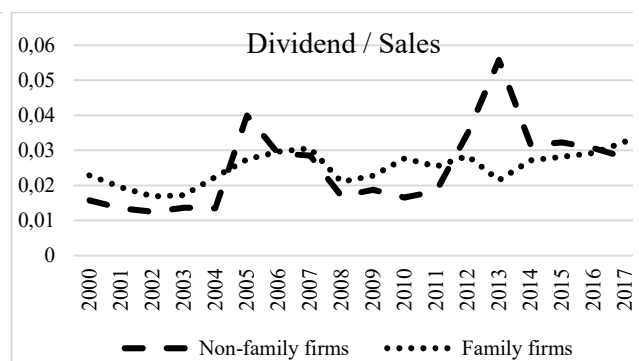
(o)



(p)



(q)



(r)

Before turning to the econometric analysis, in Table 3 we test for significance of mean differences of the main variables between family and non-family private firms (panel A) and between

family and non-family CEOs (panel B). We find that the various sub-groups differ under many respects. Family firms are significantly smaller, and report significantly higher accounting profitability, but similar values of market-to-book. As we noticed in Figure 1, the volatility of family firms' profitability, as measured by the ROA standard deviation, is lower. The two groups are similar as concerns debt ratios, tangibility, age and dividend to sales ratio, but family firms appear to distribute more dividends if we consider the dividends to total assets ratio. When we turn to corporate governance characteristics, we find interesting differences between the two groups. On the one hand, family firms are significantly less likely to rely on voting pacts, they are more likely to list in the STAR exchange segment that requires more stringent transparency and corporate governance conditions, and they do not differ from other private firms in terms of dual class share issues. On the other hand, CEO-Chair duality positions, a typical sign of power concentration, are significantly more frequent in family firms. Therefore, not surprisingly, family firms appear less attractive to institutional investors. Indeed, institutional investors on average, keep half the ownership stake they own in non-family firms. A possible sign of their concern about possible rent extraction on the part of too powerful controlling shareholders.

Finally, we look at the type of industry in which family firms more likely operate. In Italy, private firms (even listed ones), tend to do business in manufacturing rather than in service sectors. This trend however is significantly more pronounced within family firms (in our sample almost 90% of firm-years observations is in manufacturing). Moreover, almost 50% of both family and non-family firms operate in R&D intensive industries while family firms are significantly more involved in industries subject to high import penetration, where foreign competitive pressure is high, and in sectors where the 5-firm concentration ratio is lower. Overall these findings are consistent with the typical picture of relatively small and aggressive Italian firms operating in competitive industries and international markets.

Our final focus is on Family CEOs. We first compare the compensation policies of family and professional external CEOs (Panel B). We find that family CEOs' total pay is significantly lower than external CEOs'. Moreover, external CEOs are more likely to receive equity-based compensation in the form of stock options. On the contrary, and not surprisingly, the turnover of outside CEO is significantly higher (meaning that they are more likely fired) and their tenure is significantly lower than for family CEOs. Finally, within family firms, the controlling share is significantly lower when the CEO is a family member. This suggests a trade-off between ownership and control whereby the family owner keeps a larger equity stake when the firm is run by an outsider.

5 *The Relationship between Firm Ownership and Performance*

Starting from Jensen and Meckling (1976), inside ownership, i.e. equity ownership by those in control of the firm, is a potential solution to the moral hazard problem between the entrepreneur-manager's and the outside shareholders' interest. Empirically, however, the determinants of the ownership structure as well as its relationship with firm performance remain a puzzle (Demsetz and Lehn, 1985; McConnell and Servaes, 1990; Kole, 1996). In this paper, we follow the equilibrium interpretation of Himmelberg, Hubbard and Palia (1999) whereby the differences in ownership structures across firms and how they interact with firm value and performance are endogenously determined by the contracting environment. If the contracting environment affects both the decision about the size of the controlling share or the form of ownership and the firm's performance, then the correlation between ownership and performance is spurious and may reflect a two-way causality relationship. The contracting environment differs across firms as it depends on both observable and unobservable firm characteristics that may, or not, vary over time. In the empirical analysis, to reduce the potential omitted variable bias, we use many variables to proxy the firm, and industry specific contracting environment, and we include industry- or firm-fixed effects to capture unobserved time invariant firm heterogeneity. Finally, the decision to hold or to release the firm's control may depend on the firm and industry's prospects, thus raising self-selection problems as well as reverse causality concerns, if the same variables that affect firm value also affect the ownership decision. It is worth considering, however, that such problems are more serious if the owner is able, or willing, to enter or exit, increase or decrease his stake in the firm. To the contrary, we have well documented that ownership stakes in Italian family firms are high and stable over long stretches of time (our data covers almost twenty years, including a very severe crisis, but most firms have been owned by the same family for longer), almost as if owners were "glued" to the firm. This makes the reverse causality or self-selection arguments less compelling (Villalonga and Amit, 2006). Nevertheless, our empirical analysis will control for self-selection of families (in or out of firms) by relying on a treatment effects model that estimates the propensity of firms to be family-owned with a probit model, and then uses the information from the probit model to estimate the selectivity-corrected ("treatment") effect of family ownership on firm profitability and value.

We start by investigating the determinants of family firm ownership, where the "family" binary variable is the dependent variable. In Table 4, results are for the full sample of listed firms (Column (1)), and for the sub-sample of private listed firms (Column (2)). In Column (3), we focus on family firms, estimating the determinants of the choice of having a family CEOs to manage the company. The set of control variables is the same in all columns.

We find that the relationship between the family ownership dummy and firm performance (ROA) is positive, but exhibits diminishing returns, as the squared ROA term is negatively signed, although insignificant. This inverted-U relationship may suggest either that family owners sell equity shares when the firm's results are at their best (going below the 50% ownership threshold) or that family ownership is positively related to profitability, but non-family firms are those who achieve the highest ROAs. The evidence is similar (though weaker) when we look at the relationship between firm profitability and the probability of having a family CEO in charge. Interestingly, we find that the probability of family ownership is lower when the volatility of ROA, hence the firm-specific risk, is higher, but the probability of having a family CEO appears higher, although the coefficient is insignificant (Column (3)).

Focusing on the control variables, we find another inverted-U relationship between ownership and firm size, suggesting that family ownership is more likely among mid-sized companies (Columns (1) and (2)). Turning to asset tangibility, a proxy for the scope of moral hazard, since intangible assets are more difficult to monitor and allow more managerial discretion, we find that the estimated coefficients of the quadratic specification show an inverted-U relationship but are statistically insignificant. This pattern is at odds with the idea that inside ownership (typical of family firms) should be more likely the higher asset intangibility is. Among the other control variables, we find that family ownership is positively related to high leverage, suggesting that controlling shareholders prefer to opt for debt finance rather than tap the equity market to avoid releasing control. On the other hand, this evidence also suggests that banks do not see family control as an obstacle to granting loans to the firm. Indeed, higher debt obligations reduce the free cash-flow, hence the scope for diversion as well as for managerial slack (Jensen, 1986).

Not surprisingly family ownership is negatively related to the equity share owned by institutional investors (the evidence is similar if we use a binary variable to indicate their presence). This result suggests some reluctance by banks and mutual funds to invest in companies where a dominating family would allow them no or small room to monitor or intervene in the decision-making. As for the other corporate governance variables, we find that family firms are less likely to underwrite voting pacts (actually, they don't need them), but still adopt a dual-class shares structure. However, they appear more willing to enlist in the STAR segment, which has tighter transparency and governance requirements, suggesting that they want to signal potential investors that they do not intend to expropriate minority shareholders. Finally, we turn to the industry-specific variables. We find that family firms are more likely in manufacturing, but less likely in industries where the R&D intensity is high and industry concentration is high. The other variables are insignificant. Also, the probability of having a family CEO in a family firms is very imprecisely estimated in Column (3).

We now investigate the relationship between firm performance and family ownership. As reviewed in Section 2, the evidence about a supposed family premium is mixed and very much depends on estimation methods, definitions of family ownership, and whether endogeneity and the role of the founder or the descendants are accounted for. We first estimate the family firm effect within the full sample, comparing family firms to state-controlled and other private (non-family) companies together, and then we focus on the comparison between private family firms and private non-family firms. In Tables 5 and 6, we start with very simple OLS regressions of firm profitability (ROA) and value (MTB) on family ownership (a binary variable) and the full set of variables that control for the contracting environment. We then add the controlling share, transformed as $\log[\text{controlling share}/(1-\text{controlling share})]$ (*ctrsh_ln*), as many companies other than family firms are controlled with a relatively high stake and it could be reasonable to keep them apart. Finally, we include industry and firm effects. Indeed, evidence of a “family premium” was often found in models that did not include the firm fixed effects, disappearing when the time invariant component of cross-firm heterogeneity was accounted for.

In Table 5, using ROA as a measure of firm performance, we find that the relationship between family ownership and firm profitability is positive and significant with OLS regressions as well as when we add industry fixed effects and the controlling share (negative and insignificant). The evidence of a “family premium” is not strong, however, and disappears as soon as we introduce the firm fixed effects. Results for the subsample of private firms are similar but weaker. The coefficient on the controlling share is negative in three models out of four, but never significant. Finally, many of the control variables are statistically significant, suggesting that our model controls rather well for firm heterogeneity. When we turn to firm value (MTB) in Table 6, we find that its relationship with family ownership is never statistically significant. The coefficient is positive, but never significant at the conventional levels (the p-value is 0.14 in Column (5)). In contrast, we find that the controlling share enters with a negative and significant coefficient in Column (4) in the specification with firm fixed effects. Taken together, these results may suggest that the stock exchange is not inclined to reward high controlling shares when they are disjoint from family ownership, perhaps a sign of trust in family values that high stakes alone do not guarantee.

In Table 7, we test our results by accounting for the self-selection bias, or endogenous treatment (i.e., family ownership) with an instrumental variable method. We use a latent variable approach similar to Heckman’s two-step procedure for the sample selection problem (Heckman, 1976; Lee, 1982). In the first-step probit model (selection equation), we include three variables (firm age, the standard deviation of firm’s ROA and a dummy variable indicating that the firm operates in manufacturing) that we do not include in the second-step, (outcome equation) where firm

performance is the dependent variable. Table 7, for each model, presents, for the full sample and for the sub-sample of private firms (i.e. excluding state-controlled utilities, the results of the probit regressions in the first column and the results of the ROA equation in the second column. At the bottom of the tables, we report the Wald tests of the null hypothesis of no correlation between the treatment assignment (family ownership) errors and the outcome (firm performance) errors. Evidence of selectivity-bias is weak (only in one model the correlation is highly significant) but cannot be rejected.

Comfortingly, we find that many of the control variables in the selection equations are statistically significant, which is reassuring for the quality of the model's identification in the second step. Focusing on the effect of family ownership on accounting profitability, we find that the impact is positive and statistically significant, both in the full sample and in the private firms' subsample. The family premium thus ranges from 0.0432 to 0.0358. However, when we turn to the last four columns, where we test the effect on firm value, we find a positive but insignificant coefficient on family ownership with the full sample (including state-owned companies) but a negative and significant coefficient, i.e. a discount of -0.86, when we focus on private firms. These results seem to indicate that family firms are "better" run but fail to carry their extra-value forward into the stock market.⁷ Why does the market discount of family firms surface only within the private firms' subsample? There may be several explanations. First, when we include state firms in the benchmark, the relative undervaluation of family firms is overcompensated by the market discount of state firms. In contrast, when the default is only made up of private firms with dispersed ownership, hence more subject to the discipline of the market for corporate control, a "corporate governance" discount kicks in as the market perceives a higher risk of minority shareholders' expropriation. A second, stock-market related explanation has to do with the lower expected growth opportunities of family firms, which stifles the MTB ratio because family owners are notoriously reluctant to dilute their stake by raising outside equity. Third, an alternative explanation may be related to the type of industries in which family firms typically operate, where competitive pressure is high, concentration is low, import penetration is high and barriers of entry like R&D expenses, are low. The overall picture conjures to represent family firms as efficiently run but valued at a discount, difficult to sell, and to buy.

In the last part of the analysis, we test whether the direct involvement of family members in firm management as Chief Executive Officers is related to firm performance. To this purpose, we focus on family CEOs, distinguishing between the role of the firm's founder and the founder's (direct

⁷ Note that the results do not change if we include the controlling share in either the treatment or the outcome equations.

or indirect) descendant, i.e. any CEOs who is related to the controlling family by blood or marriage, and we compare their performance with that of external, i.e. hired, managers.

We begin with Table 8, where we present descriptive statistics on firm performance by CEO type and we test the significance of the mean differences in ROA and MTB. We find that, with ROA as well as with MTB, external CEOs appear to outperform family CEOs, either founder or descendants. Then in Table 9, we turn to firm fixed effects regressions where the variable of interest is the type of CEO. We include all control variables in the regressions.

Results show that family CEOs seem to achieve lower performance than external CEOs, but the evidence is weak. The negative effect only turns significant when we separate the founder from the descendant, our results showing that the inferior performance rests on the descendant (direct or indirect) of the founder. Interestingly, however, focusing on the results with MTB, we find that the negative effect of family involvement is indeed negative and significant when the CEO is also the chairperson in the board of directors (in ROA regressions the effect of CEO-Chair duality is negative but insignificant). Once again, the stock market appears more sensitive to how the firm handles corporate governance positions than to the firm's accounting results. Overall, the regression results suggest that family CEOs underperform external CEOs and that the firms' founders overperform their descendants, but in both tests, the evidence is weak.

6. Conclusions and discussion

In this paper, we have examined the evolution of the ownership structure and corporate governance of Italian listed companies and we have investigated the relationship between family ownership and firm performance. Overall, our results do not consistently find evidence of a performance or market value premium of Italian family firms or family CEOs. In line with much of the literature before us, we find that the results are mixed. On the one hand, when we control for the self-selectivity bias, we find that family firms obtain superior results in terms of accounting profitability. On the other hand, their market value (measured by the market to book ratios) is significantly lower, suggesting that the stock market assigns a "discount" to family firms, regardless of their book results. This response may derive from the investors' concern about a governance situation which, despite all efforts of compliance with formal self-discipline rules, is still characterized by an excess of power in the hand of the controlling shareholder, or by highly competitive industries in which these firms operate. The stock market's caution is confirmed when we analyze the performance impact of family involvement in firm's management. First, we find that family CEOs in general underperform professional managers, particularly so when they are not the founder. Second, when we use the market value, we find that the negative effect becomes statistically

significant when the family CEO is also the Chair of the board of directors, confirming that this concentration of powers is perceived as dangerous by investors.

Notwithstanding this controversial evidence, family firms remain the predominant form of ownership in Italy, even among publicly listed firms. With regard to this puzzle, the comparison between family and non-family firms in Table 3 provides us with further (mixed) evidence on the hypothesis that families maintain their tight control of their firms to maximize their members' utility (rather than the firm's) via shareholders' expropriation and monetary/non-monetary benefits extraction:

- Family shareholders may keep high ownership stakes because they derive *monetary benefits* in the form of hefty dividends. We test if family firms distribute larger dividends than other private non-family firms, but results are mixed as the dividend to asset ratio is significantly larger, but the dividend to sales ratio is not.
- Family members may keep their high stake because they are in search of *monetary benefits* as represented by CEO compensations. When we test if family firms pay larger compensations to their family CEOs, we find that the total pay of family CEOs (either founders or heirs) is significantly lower than the pay of external CEOs (even within family firms).
- Family firms may choose to adopt control enhancing instruments that make expropriation of minority shareholders easier. We find that family firms rely significantly less on voting pacts than non-family firms and that their use of dual class shares is similar and declining over time.
- *Monetary benefits* may accrue to family managers in the form of stock options plans that are susceptible to maneuvering, particularly when the CEO is a family member, hence in a position to manipulate the firm's results. We find that family firms tend to issue significantly less stock options plans, and the evidence is even stronger with family CEOs.
- However, family firms, and particularly family CEOs, may go after *non-monetary benefits*. Do family CEOs enjoy a quieter life, i.e. are fired less easily? Yes, we find that CEO turnover is significantly lower, and tenure is significantly higher, for family CEOs, but also non-family CEOs in family firms appear to be less likely fired. Hence, family offers a more secure haven, although less paid.
- *Non-monetary benefits* may be better pursued if the CEO is in a position to dominate the board. Our evidence shows that in family firms, CEO-Chair duality is significantly more frequent than in any other type of firms, suggesting a strong willingness to keep everything under control and to have more room for maneuvering.
- Indirect evidence of the reluctance to release control is in the trade-off between ownership and control. When we test whether the controlling share differs if the family firm is run by a

family or a non-family CEO, we find that it is significantly lower when the CEO is a member of the controlling family.

- Search for a safe haven and a quiet life, however, is at variance with the line of business of family firms. Indeed, we have found they are more likely subject to foreign competition, in low concentration industries and involved in R&D intensive sectors as non-family firms.
- The argument of safe haven is also challenged if we look at the standard deviation of profitability ratios as a proxy of idiosyncratic risk. Indeed, we find that family firms have on average lower ROA standard deviation than non-family firms, but if we frame family CEOs, we find that they run riskier firms than external CEOs.

Overall, this additional evidence provides novel elements to disentangle the puzzle of the persistence of family firms in the Italian stock exchange. If, on the one hand, these firms still look like the extension of the founder's entrepreneurial firm, on the other, they may be the vehicle for extracting non-monetary benefits. The attempt to estimate these non-monetary benefits is a challenging issue in the future research agenda.

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Table 1 – Variable descriptions

| | |
|-------------------|--|
| controlling share | The largest fraction of common equity outstanding held by an individual shareholder or by a group of shareholders related by blood or marriage |
| family | Dummy = 1 if the firm is at least 50% controlled by individuals related by blood or marriage |
| famceo | Dummy = 1 if CEO is a member of the controlling family by blood or marriage ties |
| founder_CEO | Dummy =1 if CEO is also the firm's founder |
| famceo_NoFounder | Dummy =1 if CEO is a descendant of the firm's founder |
| CEO_Chair | Dummy = 1 if the CEO is also Chair of the Directors' Board (managerial power) |
| lrsales | Log of real sales (firm size) |
| tangibility | Ratio of fixed assets to total assets (alleviation of agency costs) |
| debt_f_ta | Ratio of financial LT and ST debt to total assets (financial dependence) |
| div_sal/div_ta | Ratio of total dividends to sales/Ratio of total dividends to total assets |
| ROA | Ratio of Ebitda to total assets (firm's accounting profitability) |
| MTB | Ratio of value firm value (total asset – book value of common equity + market value of common equity) to total asset (financial performance) |
| firm_age | Firm age from foundation |
| CEO pay | CEO's total pay (cash) in '000 of 2000 constant Euros |
| CEO turnover | Dummy = 1 if a new CEO is appointed |
| CEO tenure | The number of years the CEO has been in charge in the firm |
| CEO age | The CEO age in years |
| stockOption | Dummy = 1 if the firm has a stock options plan (available from 2005) |
| instinv | Dummy = 1 if institutional investors hold at least 2% of equity |
| inst_share | Total equity share held by institutional investors with an equity share $\geq 2\%$ (Consob) |
| coalition | Dummy = 1 if a Voting pact or a shareholders' agreement is in place |
| dual | Dummy = 1 if the firm issues dual-class shares (<i>azioni privilegiate</i>) (O-C separation) |
| star | Dummy = 1 if the firm lists in the STAR segment of the Stock Exchange |
| ROA_sd | Firm-level standard deviation of the Return to Asset |
| ROA_ind | Industry-level ratio of Ebitda to total assets (benchmark for profitability) |
| manuf | Dummy = 1 if the firm's primary industry is manufacturing |
| import | Dummy = 1 if the firm's primary industry is subject to high import penetration |
| cr5 | 5-firm concentration ratio at the industry level (2008-2015 average) (ISTAT) |
| cr5_q3 | Dummy = 1 if cr5 in the firm's primary industry is higher than the 75 th perc of cr5 |
| typer | Dummy = 1 if the firm's primary industry is with high R&D intensity |

Table 2 – Summary Statistics: All Firms

| | mean | sd | min | max | count |
|-------------------|---------|----------|-------|-----------------------|-------|
| controlling share | 52.206 | 17.258 | 5.008 | 99.484 | 1830 |
| ROA | 0.093 | 0.070 | -0.24 | 0.52 | 1842 |
| MTB | 1.371 | 0.842 | 0.37 | 9.06 | 1842 |
| family | 0.647 | 0.478 | 0.00 | 1.00 | 1842 |
| famceo | 0.382 | 0.486 | 0.00 | 1.00 | 1842 |
| founder_CEO | 0.146 | 0.353 | 0.00 | 1.00 | 1842 |
| famceo_NoFounder | 0.236 | 0.498 | -1.00 | 1.00 | 1842 |
| CEO_Chair | 0.290 | 0.454 | 0.00 | 1.00 | 1840 |
| rsales | 3124118 | 11374972 | 5356 | 1.20*10 ⁰⁸ | 1842 |
| tangibility | 0.254 | 0.185 | 0.00 | 0.98 | 1839 |
| firm_age | 59.013 | 41.800 | 0.00 | 270.00 | 1842 |
| debt_f_ta | 0.277 | 0.155 | 0.00 | 0.83 | 1842 |
| div_sal | 0.031 | 0.064 | 0.00 | 1.27 | 1840 |
| div_ta | 0.018 | 0.040 | 0.00 | 1.27 | 1840 |
| instinv | 0.510 | 0.500 | 0.00 | 1.00 | 1822 |
| inst_share | 3.706 | 5.386 | 0.00 | 44.45 | 1822 |
| star | 0.336 | 0.472 | 0.00 | 1.00 | 1842 |
| coalition | 0.327 | 0.469 | 0.00 | 1.00 | 1815 |
| dual | 0.308 | 0.462 | 0.00 | 1.00 | 1839 |
| ROA_sd | 0.042 | 0.034 | 0.00 | 0.38 | 1744 |
| ROA_ind | 0.074 | 0.036 | -0.01 | 0.18 | 1820 |
| import | 0.527 | 0.499 | 0.00 | 1.00 | 1842 |
| typer | 0.429 | 0.495 | 0.00 | 1.00 | 1842 |
| manuf | 0.727 | 0.446 | 0.00 | 1.00 | 1842 |
| cr5_q3 | 0.364 | 0.481 | 0.00 | 1.00 | 1842 |
| CEO pay | 952.616 | 1722.444 | 0.00 | 44972.44 | 1842 |
| CEO age | 58.901 | 79.477 | 35.00 | 2017.00 | 1842 |
| CEO tenure | 7.663 | 6.853 | 1.00 | 40.00 | 1839 |
| CEO turnover | 0.122 | 0.328 | 0.00 | 1.00 | 1842 |
| stockOption | 0.315 | 0.465 | 0.00 | 1.00 | 1730 |

Notes: Firm size (rsales) and Total compensations (CEO pay) are in Thousands of 2000 constant Euros.

Table 3 – Summary Statistics and Tests of mean differences
A – Family firms and Private Non-family firms.

| | Family Firms | | | Private Non-family Firms | | | Mean Diff (sign.) |
|-------------------|--------------|---------|-------|--------------------------|----------|-------|----------------------|
| | mean | sd | count | mean | sd | count | |
| controlling share | 60.443 | 9.896 | 1192 | 34.405 | 0.895 | 399 | *** |
| ROA | 0.092 | 0.068 | 1192 | 0.085 | 0.075 | 411 | * |
| MTB | 1.393 | 0.871 | 1192 | 1.342 | 0.749 | 411 | - |
| founder_CEO | 0.171 | 0.377 | 1192 | 0.158 | 0.365 | 411 | - |
| CEO_Chair | 0.340 | 0.474 | 1190 | 0.209 | 0.407 | 411 | *** |
| rsales (000 €) | 815728 | 1425955 | 1192 | 4704563 | 11857499 | 411 | *** |
| tangibility | 0.223 | 0.146 | 1189 | 0.216 | 0.162 | 411 | - |
| firm_age | 57.595 | 38.651 | 1192 | 60.465 | 46.012 | 411 | - |
| debt_f ta | 0.273 | 0.147 | 1192 | 0.272 | 0.169 | 411 | - |
| div_sal | 0.025 | 0.046 | 1192 | 0.025 | 0.067 | 410 | - |
| div_ta | 0.019 | 0.047 | 1192 | 0.012 | 0.022 | 410 | *** |
| instinv | 0.480 | 0.500 | 1184 | 0.669 | 0.471 | 399 | *** |
| inst_share | 3.101 | 4.567 | 1184 | 6.697 | 7.353 | 399 | *** |
| star | 0.425 | 0.495 | 1192 | 0.234 | 0.424 | 411 | *** |
| coalition | 0.241 | 0.428 | 1170 | 0.533 | 0.500 | 407 | *** |
| dual | 0.319 | 0.466 | 1190 | 0.310 | 0.463 | 410 | - |
| ROA_sd | 0.041 | 0.022 | 1133 | 0.049 | 0.055 | 379 | *** |
| ROA_ind | 0.070 | 0.032 | 1175 | 0.071 | 0.037 | 406 | - |
| import | 0.642 | 0.480 | 1192 | 0.455 | 0.499 | 411 | *** |
| typer | 0.453 | 0.498 | 1192 | 0.484 | 0.500 | 411 | - |
| manuf | 0.894 | 0.308 | 1192 | 0.601 | 0.490 | 411 | *** |
| cr5_q3 | 0.230 | 0.421 | 1192 | 0.509 | 0.501 | 411 | *** |

B –Compensation Policy in Private firms: Family CEOs and Non-Family CEOs

| | Family CEOs | | | Non-Family CEOs | | | Mean Diff (sign.) |
|-------------------|-------------|---------|-------|---------------------------------|----------|-------|----------------------|
| | Mean | sd | count | mean | sd | count | |
| CEO pay | 682.180 | 796.246 | 704 | 1130.830 | 2219.770 | 899 | *** |
| CEO age | 57.395 | 10.901 | 704 | 60.358 | 113.284 | 899 | - |
| CEO tenure | 10.592 | 7.800 | 704 | 6.244 | 5.833 | 896 | *** |
| CEO turnover | 0.050 | 0.218 | 704 | 0.157 | 0.364 | 899 | *** |
| stockOption | 0.204 | 0.404 | 680 | 0.424 | 0.494 | 823 | *** |
| | Family CEOs | | | Non-Family CEOs in Family firms | | | |
| controlling share | 59.125 | 9.902 | 692 | 62.269 | 9.605 | 500 | *** |

Notes: Firm size (rsales) and Total compensations (CEO pay) are in Thousands of 2000 constant Euros.

Table 4 - Probability of family ownership and family CEO: Probit regressions

| | (1) | (2) | (3) |
|----------------------|---------------------------|---------------------------|---------------------------|
| | All firms Family Own. | Private Family Own. | Family Firm Family CEO |
| ROA | 5.310** (2.183) | 4.920** (2.202) | 0.824 (2.853) |
| ROA2 | -12.46 (9.456) | -14.48 (9.685) | -14.75 (10.31) |
| lrsales | 2.637*** (0.956) | 1.750* (1.030) | -1.779 (1.873) |
| lrsales2 | -0.104*** (0.0357) | -0.0713* (0.0378) | 0.0614 (0.0714) |
| tangibility | 2.019 (1.768) | 1.256 (2.383) | 2.611 (2.860) |
| tangibility2 | -3.735 (2.415) | -1.042 (3.650) | -5.471 (5.007) |
| firm_age | 0.00533 (0.00704) | 0.00951 (0.00758) | 0.0121 (0.00762) |
| firm_age2 | -0.0000292 (0.0000367) | -0.0000425 (0.0000373) | -0.0000309 (0.0000333) |
| debt_f_ta | 1.872** (0.802) | 1.376* (0.856) | -0.963 (0.789) |
| inst_share | -0.0579*** (0.0143) | -0.0668*** (0.0147) | -0.0102 (0.0202) |
| dual | 0.483** (0.230) | 0.381* (0.233) | 0.578** (0.262) |
| coalition | -0.743*** (0.201) | -0.830*** (0.219) | 0.109 (0.241) |
| star | 0.483* (0.255) | 0.460* (0.260) | -0.272 (0.234) |
| ROA_ind | -2.984 (3.540) | -0.467 (3.846) | 2.128 (4.031) |
| ROA_sd | -3.772 (2.577) | -6.466* (3.337) | 3.092 (5.557) |
| import | 0.257 (0.519) | 0.468 (0.563) | -0.0110 (0.373) |
| typer | -0.876* (0.528) | -1.017* (0.558) | 0.158 (0.349) |
| manuf | 1.672*** (0.364) | 1.278*** (0.405) | 0.708 (0.528) |
| cr5_q3 | -0.705*** (0.261) | -0.500* (0.286) | -0.320 (0.265) |
| Year FE | Yes | Yes | Yes |
| Pseudo R2 | 0.464 | 0.374 | 0.152 |
| Observations [Firms] | 1682[151] | 1451[130] | 1087[101] |

Probit estimates. Robust standard errors in parentheses are clustered at the firm level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5 - Regressions of firm performance (ROA) on family ownership

| ROA | All firms | | | | Private Firms | |
|--------------|------------------------|----------------------------------|-------------------------|------------------------|---------------------------------|-----------------------|
| | Pooled | Industry FE | Industry FE | Firm FE | Industry FE | Firm FE |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| family | 0.0174** (0.00846) | 0.0150 ^a (0.00980) | 0.0207* (0.0113) | -0.00872 (0.0154) | 0.0202 ^b (0.0136) | -0.0112 (0.0155) |
| ctrsh_ln | - - | - - | -0.00525 (0.00369) | -0.00160 (0.00479) | -0.00375 (0.00415) | 0.000471 (0.00519) |
| lrsales | 0.0483* (0.0256) | 0.0615** (0.0270) | 0.0644** (0.0266) | 0.0290 (0.0699) | 0.0846** (0.0352) | 0.135* (0.0763) |
| lrsales2 | -0.00130 (0.000937) | -0.00174* (0.00101) | -0.00184* (0.000997) | -0.000284 (0.00255) | -0.00258** (0.00130) | -0.00424 (0.00276) |
| tangibility | 0.0710*** (0.0178) | 0.0499** (0.0198) | 0.0501** (0.0198) | 0.0641** (0.0292) | 0.0265 (0.0250) | 0.0629* (0.0334) |
| lfirm_age | -0.00221 (0.00347) | -0.00318 (0.00345) | -0.00269 (0.00344) | -0.00325 (0.0192) | -0.00333 (0.00442) | -0.0237 (0.0272) |
| debtfa | -0.144*** (0.0247) | -0.154*** (0.0269) | -0.155*** (0.0269) | -0.166*** (0.0216) | -0.159*** (0.0279) | -0.177*** (0.0237) |
| instinv | 0.0198*** (0.00516) | 0.0107** (0.00510) | 0.0102** (0.00504) | -0.00203 (0.00386) | 0.0108* (0.00573) | -0.00387 (0.00427) |
| dual | -0.00483 (0.00540) | -0.00226 (0.00583) | -0.00166 (0.00577) | -0.00412 (0.00584) | 0.00113 (0.00670) | -0.00620 (0.00660) |
| coalition | 0.00714 (0.00647) | 0.00404 (0.00652) | 0.00219 (0.00671) | -0.0117** (0.00588) | 0.00335 (0.00735) | -0.0115* (0.00609) |
| star | 0.0137** (0.00657) | 0.0137* (0.00740) | 0.0140* (0.00726) | 0.0218** (0.00947) | 0.0135* (0.00762) | 0.0183** (0.00903) |
| ROA_ind | 0.701*** (0.109) | 0.650*** (0.160) | 0.645*** (0.159) | 0.198 (0.164) | 0.625*** (0.186) | 0.126 (0.186) |
| ROA_sd | 0.112 (0.108) | 0.0668 (0.0926) | 0.0572 (0.0914) | | -0.0199 (0.131) | |
| import | 0.0238** (0.0109) | -0.00102 (0.0158) | -0.00104 (0.0154) | | -0.00598 (0.0149) | |
| typer | 0.0198* (0.0105) | 0.0339 (0.0212) | 0.0333 (0.0214) | | 0.0389 (0.0259) | |
| manuf | -0.0227** (0.0100) | 0.0144 (0.0159) | 0.0104 (0.0158) | | 0.0204 (0.0174) | |
| cr5_q3 | -0.0133* (0.00769) | -0.0108 (0.0104) | -0.0117 (0.0106) | | -0.0125 (0.0115) | |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes |
| R2 | 0.341 | 0.404 | 0.406 | 0.248 | 0.394 | 0.259 |
| Observations | 1680[151] | 1680[151] | 1680[151] | 1680[151] | 1450[130] | 1450[130] |

Robust standard errors in parentheses are clustered by firm. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

^a p-value= 0.127 ; ^b p-value= 0.139

Table 6 - Regressions of firm performance (MTB) on family ownership

| | All firms | | | | Private Firms | |
|--|------------------|------------------|-----------------------|-----------------------|---------------------|----------------------------------|
| | Pooled | Industry FE | Industry FE | Firm FE | Industry FE | Firm FE |
| | (1) | (2) | (3) | (4) | (5) | (6) |
| family | 0.157 (0.133) | 0.157 (0.132) | 0.157 (0.142) | 0.0813 (0.0780) | 0.215 (0.146) | 0.118 (0.117) |
| ctrsh_ln | - - | - - | -0.000161 (0.0568) | -0.0979** (0.0467) | 0.00435 (0.0602) | -0.0714 ^a (0.0458) |
| Control variables: | Yes | Yes | Yes | Yes | Yes | Yes |
| lrsales, lrsales2, tangibility, debtf_ta, dual, lfirm_age, coalition, instinv, star, ROA_sd, ROA_ind, manuf, typer, cr5_q3, import | | | | | | |
| Year FE | Yes | Yes | Yes | Yes | Yes | Yes |
| R2 | 0.213 | 0.306 | 0.306 | 0.031 | 0.302 | 0.100 |
| Observations[Firms] | 1680[151] | 1680[151] | 1680[151] | 1680[151] | 1450[130] | 1450[130] |

Robust standard errors in parentheses are clustered by firm. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

^ap-value= 0.121

Table 7 - Self-selection corrected effect of family ownership on firm performance: ROA and MTB

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|-----------------------|-----------------------|-----------------------|------------------------|-----------------------|----------------------|-----------------------|------------------------|
| | All | | Private | | All | | Private | |
| | family | ROA | family | ROA | family | MTB | family | MTB |
| family | | 0.0432* (0.0225) | | 0.0358* (0.0211) | | 0.1755 (0.1861) | | -0.8649*** (0.2777) |
| lrsales | 3.174*** (0.941) | 0.0475 (0.0298) | 2.050** (0.987) | 0.0722** (0.0353) | 3.115*** (0.993) | 0.0580 (0.331) | 1.671* (0.891) | 1.478*** (0.509) |
| lrsales2 | -0.123*** (0.0358) | -0.00123 (0.00112) | -0.0816** (0.0367) | -0.00211 (0.00131) | -0.120*** (0.0377) | -0.00232 (0.0119) | -0.0674** (0.0330) | -0.0553*** (0.0188) |
| tangibility | 2.737 (1.796) | -0.0106 (0.0483) | 2.214 (2.436) | 0.00790 (0.0736) | 2.772 (1.841) | -0.518 (1.146) | 1.537 (1.904) | -0.226 (1.874) |
| tangibility2 | -4.093* (2.383) | 0.0890 (0.0549) | -1.983 (3.622) | 0.0293 (0.105) | -4.094* (2.461) | 1.232 (1.279) | -1.013 (2.746) | 0.444 (2.500) |
| debt_f_ta | | -0.154*** (0.0256) | | -0.158*** (0.0269) | | -0.872*** (0.321) | | -0.701** (0.305) |
| instinv | -0.324** (0.156) | 0.0114** (0.00524) | -0.456*** (0.172) | 0.0126** (0.00577) | -0.323** (0.163) | 0.229*** (0.0762) | -0.216 (0.179) | 0.164* (0.0921) |
| star | 0.402 (0.249) | 0.0109 (0.00765) | 0.376 (0.261) | 0.0117 (0.00771) | 0.423* (0.250) | -0.172* (0.0894) | 0.259 (0.232) | -0.1000 (0.106) |
| coalition | -0.696*** (0.190) | 0.00965 (0.00795) | -0.815*** (0.213) | 0.00807 (0.00833) | -0.703*** (0.197) | 0.0431 (0.0808) | -0.683*** (0.202) | -0.120 (0.135) |
| dual | 0.493** (0.211) | -0.00436 (0.00616) | 0.404* (0.221) | -0.000670 (0.00697) | 0.505** (0.216) | -0.0249 (0.115) | 0.355* (0.192) | 0.0289 (0.129) |
| ROA_ind | -1.416 (3.231) | 0.648*** (0.163) | 0.839 (3.596) | 0.642*** (0.184) | -0.962 (3.197) | 6.339*** (2.035) | 3.609 (3.520) | 6.075*** (2.209) |
| import | 0.352 (0.491) | 0.000109 (0.0152) | 0.522 (0.535) | -0.00209 (0.0145) | 0.297 (0.479) | 0.206 (0.137) | 0.257 (0.357) | 0.0647 (0.166) |
| typer | -0.755 (0.493) | 0.0376* (0.0205) | -0.878* (0.527) | 0.0412* (0.0245) | -0.662 (0.468) | 0.137 (0.225) | -0.443 (0.355) | 0.0213 (0.319) |
| cr5_q3 | -0.625** (0.256) | -0.00622 (0.0101) | -0.466* (0.277) | -0.0111 (0.0110) | -0.653** (0.257) | 0.242 (0.148) | -0.439* (0.240) | 0.119 (0.174) |
| manuf | 1.453*** (0.321) | | 1.133*** (0.361) | | 1.445*** (0.326) | 0.653*** (0.215) | 0.847** (0.352) | 1.044*** (0.261) |
| lfirm_age | -0.0489 (0.131) | | 0.0384 (0.147) | | -0.0359 (0.143) | | 0.116 (0.0972) | |
| ROA_sd | -4.909* (2.907) | | -10.19** (5.130) | | -4.843* (2.551) | | -5.513** (2.563) | |
| Firm and Year FE | Yes | | Yes | | Yes | | Yes | |
| Log pseudolikelihood | 1915.2 | | 1636.6 | | -2451.3 | | -2.097 | |
| Wald test of indepen. equations (p-value) | 0.116 | | 0.155 | | 0.846 | | 0.000 | |
| Observations | 1680[151] | | 1450[130] | | 1680[151] | | 1450[130] | |

Robust standard errors in parentheses are clustered by firm. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 8 - ROA and MTB by type of CEOs in Family firms and test of mean differences

| | Founder (a) | Family but not Founder (b) | External CEO (c) | Mean diff. (a)-(b) | Mean diff. (b) – (c) | Mean diff. (a)-(c) |
|-----|----------------|----------------------------------|------------------------|-----------------------|-------------------------|-----------------------|
| N. | 204 | 488 | 500 | | | |
| ROA | 0.087 | 0.088 | 0.098 | n. s. | ** | * |
| MTB | 1.322 | 1.358 | 1.457 | n. s. | * | * |

Table 9 - Effect of Founder and Descendant- CEOs in Family firms (ROA and MTB) – (Firm fixed effects)

| Dep. Variable: ROA | (1) ROA | (2) ROA | (3) ROA | (4) ROA | (5) ROA |
|---|-----------------------|------------------------|---------------------|------------------------|----------------------|
| famceo | -0.00969 (0.00796) | | | | |
| famceo_NoFounder | | -0.0180** (0.00801) | | -0.0175** (0.00834) | -0.0109 (0.00885) |
| founder_CEO | | | 0.00768 (0.0119) | 0.00382 (0.0120) | 0.0110 (0.0125) |
| CEO_Chair | | | | | -0.0107 (0.00743) |
| Control variables: lrsales, lrsales2, tangibility, debtf_ta, dual, lfirm_age, coalition, instinv, star, ROA_sd, ROA_ind, manuf, typer, cr5_q3, import | | | | | |
| Firm and Year FE | Yes | Yes | Yes | Yes | Yes |
| R2 | 0.356 | 0.360 | 0.354 | 0.360 | 0.363 |
| Observations | 1086[101] | 1086[101] | 1086[101] | 1086[101] | 1086[101] |

| Dep. Variable: MTB | (1) MTB | (2) MTB | (4) MTB | (5) MTB | (6) MTB |
|---|---------------------|---------------------------------|--------------------|---------------------|----------------------|
| famceo | -0.0945 (0.0715) | | | | |
| famceo_NoFounder | | -0.142 ^a (0.0882) | | -0.144* (0.0877) | -0.00979 (0.0982) |
| founder_CEO | | | 0.0224 (0.0975) | -0.00932 (0.100) | 0.137 (0.121) |
| CEO_Chair | | | | | -0.219* (0.115) |
| Control variables: lrsales, lrsales2, tangibility, debtf_ta, dual, lfirm_age, coalition, instinv, star, ROA_sd, ROA_ind, manuf, typer, cr5_q3, import | | | | | |
| Firm and Year FE | Yes | Yes | Yes | Yes | Yes |
| R2 | 0.123 | 0.124 | 0.122 | 0.124 | 0.132 |
| Observations | 1086[101] | 1086[101] | 1086[101] | 1086[101] | 1086[101] |

Standard errors in parentheses ^a = p-value: 0.11 * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$