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Corporate Ownership and Governance of Italian Listed Firms (2000-2017) A focus on "Family" Firms

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Very preliminary draft

1. Introduction

We present new evidence on the changes in corporate ownership and governance of Italian publicly listed firms in the XXI century. We focus on non-financial companies and on "family firms" in particular, tracking their behavior and performance, their ownership structure, governance positions, CEO compensation and parental ties with the controlling shareholder from 2000 to 2017. By focusing on the ownership and control structures that firms actually have adopted within 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). 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 blood or marriage. 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), 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. 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 (Croci 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 may act 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 to analyze the relationship between their presence and their size with firm accounting and financial performance, compensation policy and quality of the corporate governance.

The main research question of this paper deals with the relationship between the firm’s ownership and control and the firm’s performance. We are well aware that this relationship is ridden by endogeneity 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. This raises many interesting issues to explore, starting from 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 ousted) and, ultimately, the motivations behind the choice of the CEO, whether a family member or an external manager, and of his incentive schemes.

To deal with this complicated nexus of questions, our approach to the study of the relationship between "ownership and performance" will be tentative and explorative. The purpose is to disentangle the issues related to firm ownership and control, to the role of the founder or his/her descendants in the director's board or in a managing position, the choice of the structure of the voting rights, the choice of the CEO compensation policy and the incentive schemes (pay-performance and turnover-performance sensitivity, use of stock option and equity-related plans), the role of institutional investors. All these features contribute to determine the relationship between firm's ownership, control and performance that we document in this paper and its impact on minority shareholders' welfare and the firm's growth prospects.

The paper starts by describing, in Section 2, the dataset and the main features of Italian listed firms' ownership structure, corporate governance characteristics and compensation policy. In Section 3, we turn to the subsample of family firms, focusing on their internal governance, the presence of the founding family (founder or founder's descendants) and its role in management or directors' board, the choice between an external or a "family" CEO, and the differences, if any, in the structure of their compensation and in CEO turnover. In Section 4, we turn to the relationship between firm performance and family ownership, controlling for the characteristics of the firm's contracting environment. Finally, in Section 5, we discuss the results and propose further research avenues.

2. The dataset

We construct our dataset starting from the original population of non-financial firms quoted in the "Industrial Companies" segment of Italian stock exchange, and we tracked company data back

to 2000[1]. We exclude firms with less than four continuous years of CEO compensation data, outliers, and companies object of large merger or divestiture operations that break up the time series.[2] Our final dataset is an unbalanced panel of 155 non-financial publicly listed firms from 2000-2017.

The "corporate economy" in Italy mainly consists of either family business 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 "family" firms and a number of companies owned by private investors who do not reach, individually, the legal majority of 50% stake.[3] To identify "family" ownership we use 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 (see Section 3). We use the above information about equity shares of the largest shareholder or of family-related shareholders to construct the variable "*Controlling share*". To complement information on firm ownership structure, we include the dummy *Institutional Investor* denoting the presence of mutual or investment funds with more than 2% of the shares, and *Institutional Share*, defined as the total equity share held by institutional investors with an equity share greater than 2%. Moreover, the corporate governance literature suggests that institutional investors play a disciplining role on compensation policy (Croci, et al. 2012, Fernando et al. 2013). Additional control variables are included to proxy for the internal corporate governance of the firms and, specifically, to account for alternative mechanisms of

[1] The starting date is 2000 because information on CEO compensations only became publicly available since that year, as a result of CONSOB's Regulation n. 11971 (May 14, 1999).

[2] The final database contains extensive information on non-financial publicly listed Italian firms obtained from multiple sources. 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 annual reports, DUN's and Bradstreet, company websites, CONSOB, the Italian Exchange (Borsa Italiana) website and other directories.

[3] In most of the regression analyses we focus on "private" firms, i.e., we exclude state-controlled firms and public utilities that 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).

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.

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 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 *Family CEO*, distinguishing between the case of family CEO who is also the founder of the firm (*Founder_CEO*), or just a descendant (*Heir_CEO*). Moreover, the dummy *CEO_Chai*r specifies that the CEO is also Chair of the Directors' Board, a situation that indicates the concentration of managerial power. 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_Age* is a proxy of the CEO's experience and expertise while the binary variable *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 *Var_sha_pay* is the ratio of the sum of bonuses and non-monetary benefits to total pay, as a measure of the variable component of the CEO pay.[4]

Turning to firm-level variables, we use the Return on Assets (*ROA*, the ratio between EBITDA and total assets) or the Tobin's Q ((book value of total asset – book value of equity + market capitalization)/book value of total assets) to measure firm performance (*Performance*). While the ROA is a measure of how efficiently the CEO uses the assets, regardless of the capital structure, *Tobin's Q* allows for a market-based measure of firm performance. We include the log of real total sales to measure *Firm Size*, a variable which is likely correlated with firm ownership, as family-owned firms tend to be small, especially those are still run by a family CEO. In addition, we include the firm level asset *Tangibility* ratio calculated as the ratio between fixed assets (property, plant, and equipment) and total assets to account for the fact that tangible assets mitigate agency

[4] We are aware that a comprehensive measure of CEO pay should also cover the values of the CEO's stock and option holdings, disclosure of stock options data became compulsory only in 2012 and the required information was unavailable in the previous years. Instead, we collected information on the presence of stock option plans.

problems in that they are easily monitored and provide good collateral. *Debtf_ta* is the our proxy for financial leverage, i.e. the ratio of long and short-term financial debt over total assets and *Div_sales* is the ratio of total dividends to firm sale to measure the extent to which the controlling shareholders tend to distribute or retain the free cash-flow. 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.

We also account for industry specific factors. First, *ROA_ind* is the industry-level ROA profitability ratio (Ebit/total assets) to provide a benchmark to the decision to keep or release the firm's control. Second, the binary variables *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. Third, *Cr5_mean* 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.

3. *A visual picture of corporate ownership and governance of Italian publicly listed firms (2000-2017)*

Firm ownership has always been –and continues to be- highly concentrated in Italy. Family firms are the prevailing ownership model in the Italian landscape of private listed firms. In 2017 family firms represent the 69.3% of all private firms. The number of private firms, as well as the number of family firms, has increased since the year 2000 (see Figure 1).

Figure 1: Structure of the panel. Firm-year observations by year and ownership

Year	All firms	Private firms	Family firms	Family firms (family CEO)
2000	65	63	47	37
2001	78	75	56	39
2002	89	79	59	41
2003	101	86	63	44
2004	105	89	66	41
2005	109	94	67	42
2006	119	104	76	44
2007	127	112	82	48
2008	124	108	76	44
2009	127	110	77	38
2010	127	110	76	39
2011	125	100	74	36
2012	126	109	75	36
2013	129	112	76	37
2014	121	105	73	37
2015	108	95	69	37
2016	107	94	66	36
2017	100	88	61	32

The role of family firms in the public equity market

Looking at the fraction of family firms over all private firms represented in Figure 2, the data seem to suggest a decreasing trend in the fraction of family firms. Such a decrease 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.

Figure 2: Share of Family firms over the total of private firms

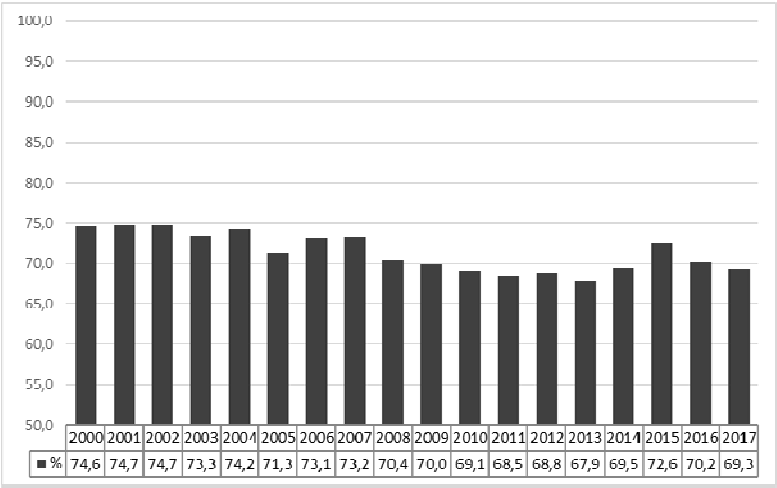
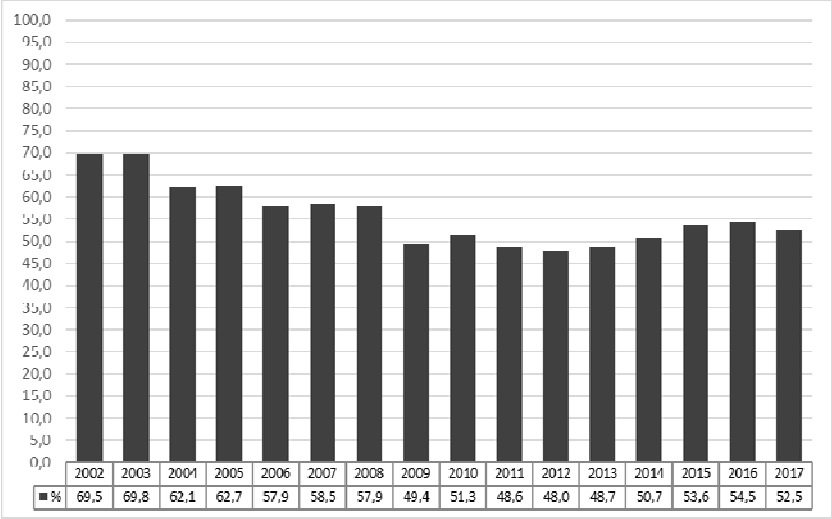


Figure 3 focuses on family firms, and shows the fraction of them with a family CEO. In 2017, 52,7% of family firms have a CEO belonging to the family. Although this value is high in absolute

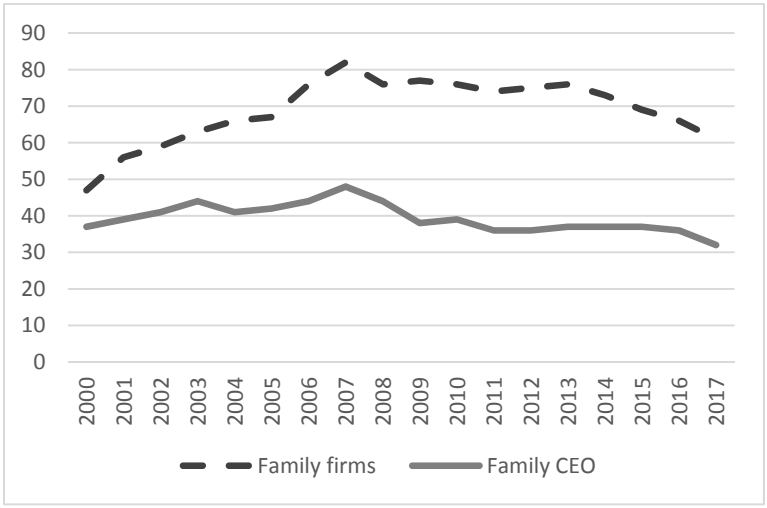
terms, a look to the data on the longer term seems to suggest a decreasing trend, as the fraction of family firms with a family CEO was nearly 70% in the year 2000, with a marked drop after the 2008 crisis.

Figure 3: Share of family firms with a family CEO



However, when looking at Figure 4, 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.

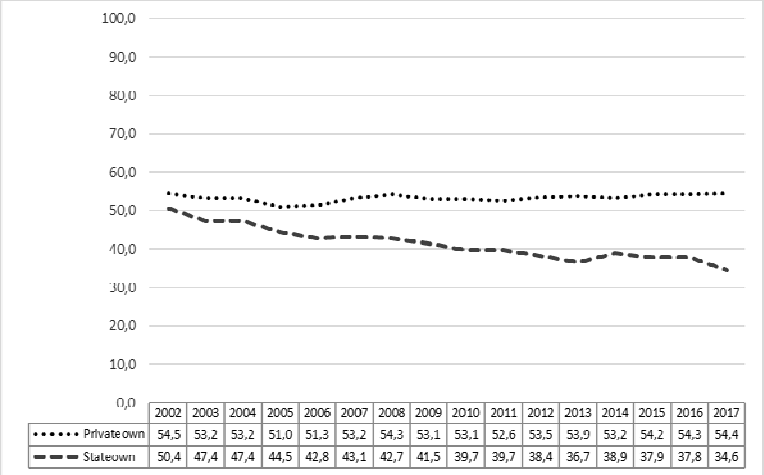
Figure 4: Number of family firms (total and with a family CEO) by year



Ownership structure: The stability of controlling shares

To measure the controlling share we identified the share of the largest relevant (be 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 a "family"). Since in most cases, the individual or aggregate share was quite large, we defined it "controlling share". Figures 0.1 and 0.2 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), that the presence of the State, either at the national at local level, is still strong and that private investors (mostly "families") steadily hold tight the control of their firms.

Figure 0.1: Average controlling share of state- and privately-controlled firms

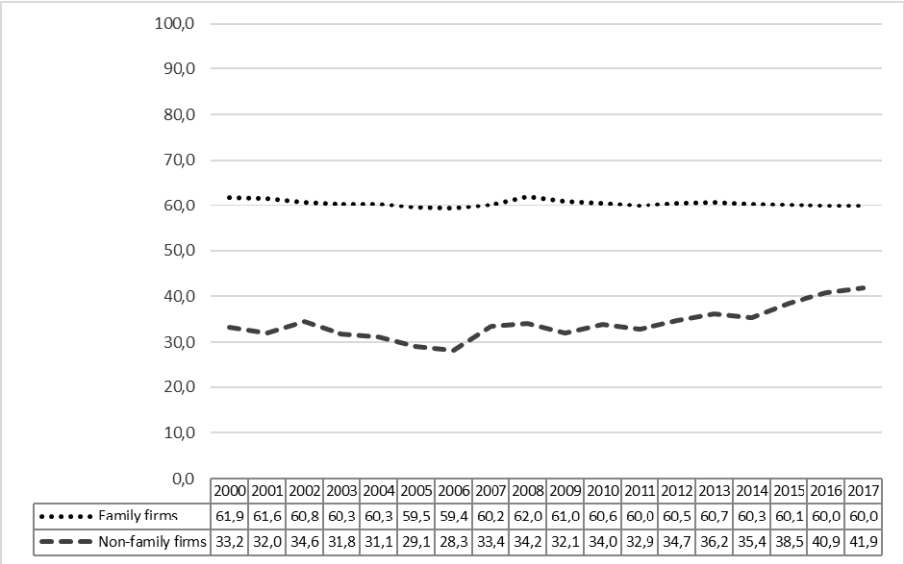


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Private own	54,5	53,2	53,2	51,0	51,3	53,2	54,3	53,1	53,1	52,6	53,5	53,9	53,2	54,2	54,3	54,4
Stateown	50,4	47,4	47,4	44,5	42,8	43,1	42,7	41,5	39,7	39,7	38,4	36,7	38,9	37,9	37,8	34,6

However, Figure 0.1 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 is going on. In this case, privatization is perhaps inappropriate, since the Government tightly keep a larger than 30% stake in these firms.

In Figure 0.2 is depicted the trend of the controlling shares in family and (private) non-family firms. The figure clearly explains why we have to choose a threshold of 50% to define family firms. Indeed, if we choose the 30%, there would no non-family firms in the Italian stock exchange. We notice that the (average) controlling share of family firms does not bulge from 60%, while the large shareholders in non-family firms appear to be increasing their stake.

Figure 0.2: Average controlling share of family and non family firms (private firms)

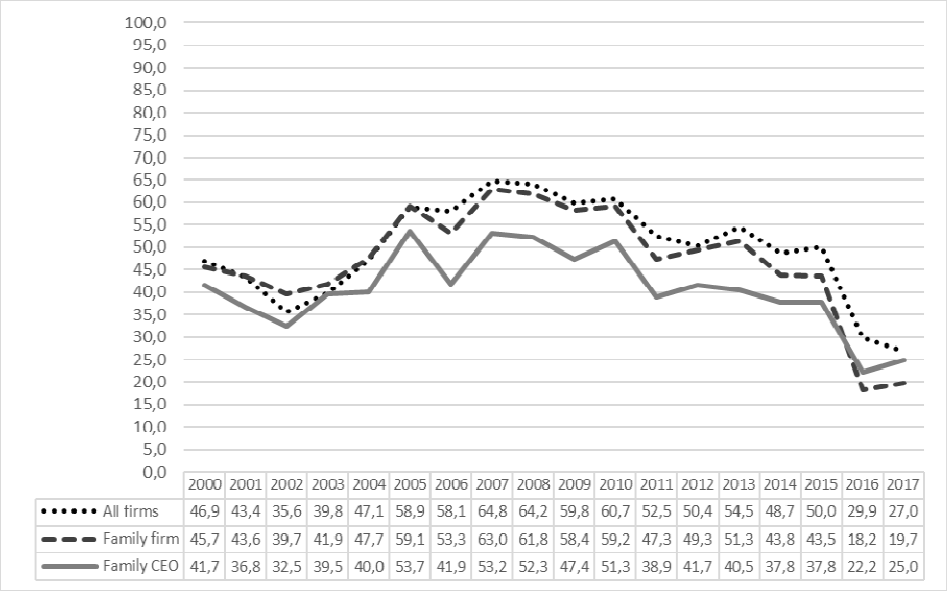


	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Family firms	61,9	61,6	60,8	60,3	60,3	59,5	59,4	60,2	62,0	61,0	60,6	60,0	60,5	60,7	60,3	60,1	60,0	60,0
Non-family firms	33,2	32,0	34,6	31,8	31,1	29,1	28,3	33,4	34,2	32,1	34,0	32,9	34,7	36,2	35,4	38,5	40,9	41,9

Ownership structure: The changing role of institutional investors

Figure 5 shows that institutional investors have reduced their presence in recent years across all type of firms. In particular, institutional investors are present with a relevant share in a lower number of firms.

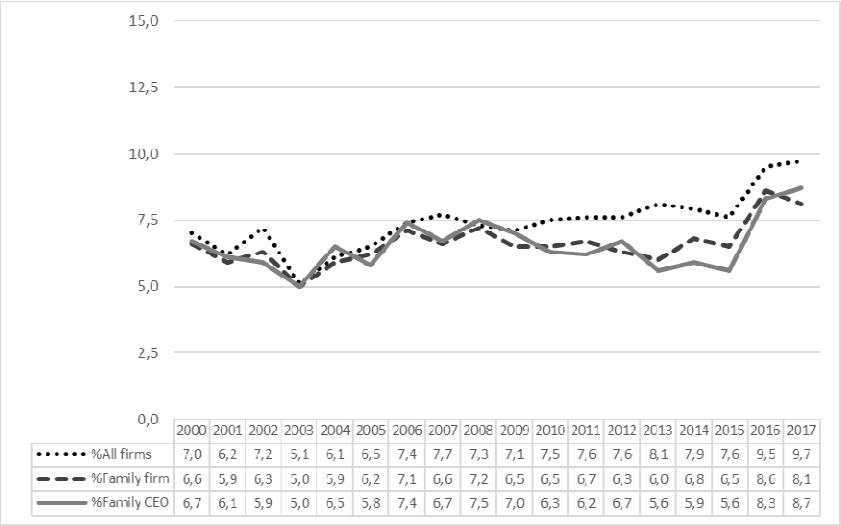
Figure 5: Fraction of firms where at least one institutional investor has a relevant (2%) equity share (All firms, family firms, family firms with a family CEO)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
All firms	46,9	43,4	35,6	39,8	47,1	58,9	58,1	64,8	64,2	59,8	60,7	52,5	50,4	54,5	48,7	50,0	29,9	27,0
Family firm	45,7	43,6	39,7	41,9	47,7	59,1	53,3	63,0	61,8	58,4	59,2	47,3	49,3	51,3	43,8	43,5	18,2	19,7
Family CEO	41,7	36,8	32,5	39,5	40,0	53,7	41,9	53,2	52,3	47,4	51,3	38,9	41,7	40,5	37,8	37,8	22,2	25,0

Nonetheless, in those firms where institutional investors are present, their share seems to have increased in recent years (Figure 6).

Figure 6: Average equity share owned by institutional investors in firms with at least one relevant institutional investor (all firms, family firms, family firms with a family CEO)



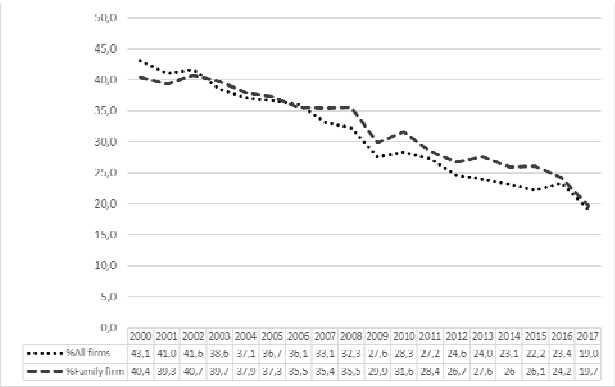
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
%All firms	7,0	6,2	7,2	5,1	6,1	6,5	7,4	7,7	7,3	7,1	7,5	7,6	7,6	8,1	7,9	7,6	9,5	9,7
%Family firm	6,6	5,9	6,3	5,0	5,9	6,2	7,1	6,6	7,2	6,5	6,5	6,7	6,3	6,0	6,8	6,5	8,6	8,1
%Family CEO	6,7	6,1	5,9	5,0	6,5	5,8	7,4	6,7	7,5	7,0	6,3	6,2	6,7	5,6	5,9	5,6	8,3	8,7

This suggests that institutional investors have lately curtailed dispersed financing, rather preferring to concentrate their investments. An alternative explanation could be related to herd behavior in the investment decisions of mutual funds and the likes, whereby institutional investors look at each other and prefer to invest in the same firms.

Separation between ownership and control

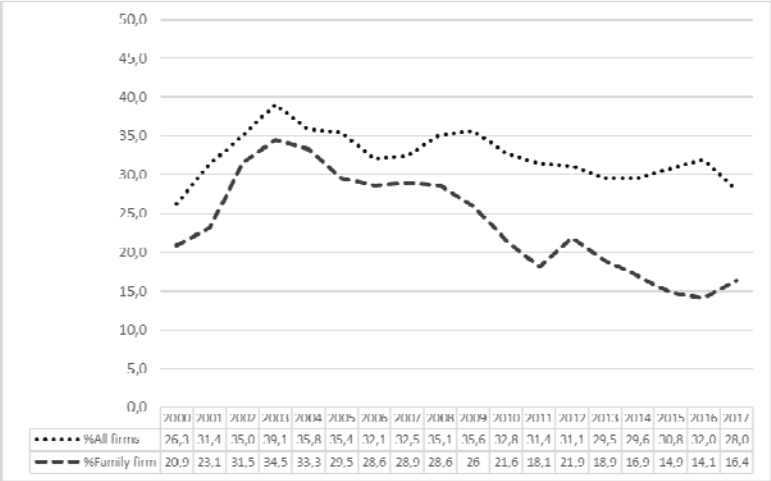
The use of instruments that introduce a separation between ownership and control is relatively widespread in Italy (Bianchi et al., 1999). However, the fraction of firms with dual-class share of votes (Figure 7) and the number of shareholders' agreements (Figure 8) have steadily decreased over time, thus indicating a better alignment between ownership and control. In particular, 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.

Figure 7: Fraction of (total and family) firms with a dual-class share system



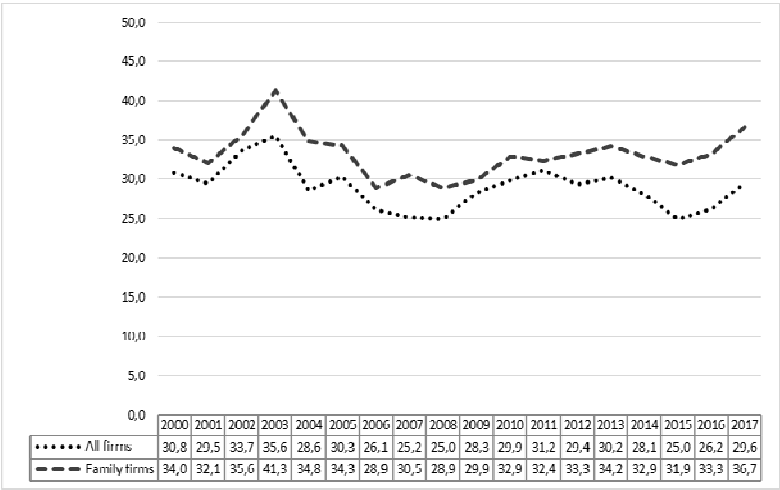
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
%All firms	43,1	41,0	41,6	38,6	37,1	36,7	36,1	35,1	32,3	27,6	28,3	27,2	24,6	24,0	23,1	22,2	23,4	19,0
%Family firms	40,4	39,3	40,7	39,7	37,9	37,3	35,5	35,4	33,5	29,9	31,6	28,4	26,7	27,6	26	26,1	24,2	19,7

Figure 8: Shareholders' agreements (Voting pacts) in total and family firms



On the other hand, Figure 9 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.

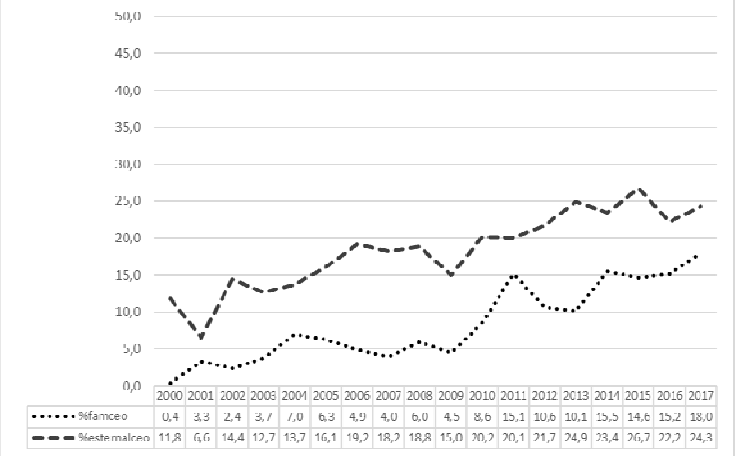
Figure 9: Fraction of firms with CEO-chair duality



CEOs' compensations

Looking at the structure of CEOs' compensation in Figure 10, the incentive power of wages in family firms are steadily increased over the period considered. Moreover, external CEOs' contracts display a higher pay-for-performance component than family CEOs' contracts.

Figure 10: Fraction of pay-for-performance components of CEO's compensation (bonus + non monetary benefits) over total CEO's pay in family firms, by type of CEO



Firm performance (ROA, ROS, Tobin's Q)

When family firms are compared to non-family firms on performance measures, they clearly exhibit a different ability to deal with the crisis. Figure 11 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. The year 2008 marks a dramatic overturn also when looking at the ROS (Figure 12). Overall, data suggest that non-family firms seem to be better able to stand up in front of negative exogenous shocks. However, it is also important to notice that family firms also differ from non-family firms in terms of volatility of performance. The ROA of family firms (Figure 10) fluctuates over the range of (roughly) 8-12%, while the ROA of non-family firms varies between 4 and 14%. The same conclusions hold for the ROS, which varies in the interval 10-15% for family firms, and 2-18% for non-family, and are even stronger when looking at the Tobin's Q in Figure 13 (1-3 for family firms, 1-8 for non-family).

Figure 11: Average ROA by ownership in private firms

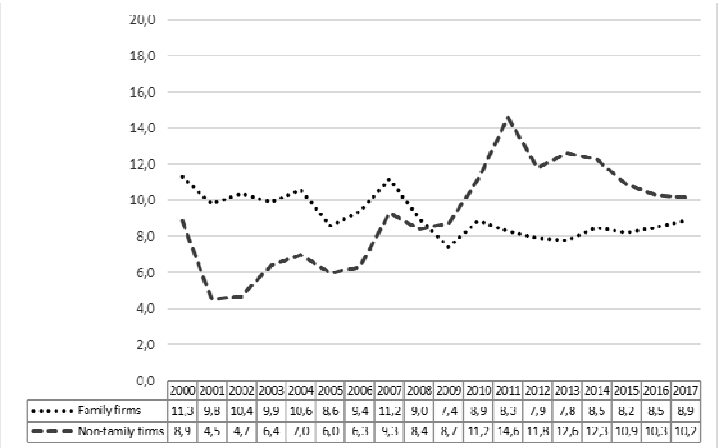
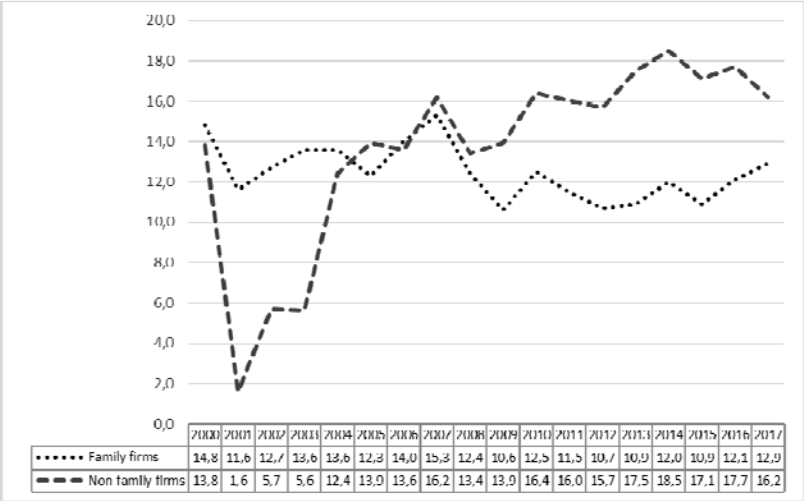
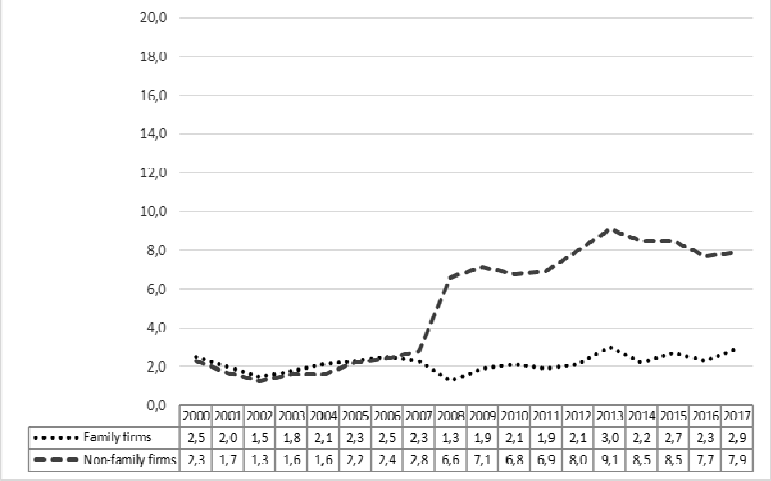


Figure 12: Average ROS in private firms by firm ownership



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Family firms	14,8	11,6	12,7	13,6	13,6	12,8	14,0	15,3	12,4	10,6	12,5	11,5	10,7	10,9	12,0	10,9	12,1	12,9
Non family firms	13,8	1,6	5,7	5,6	12,4	13,9	13,6	16,2	13,4	13,9	16,4	16,0	15,7	17,5	18,5	17,1	17,7	16,2

Figure 13: Average Tobin's Q in private firms by firm ownership



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Family firms	2,5	2,0	1,5	1,8	2,1	2,3	2,5	2,3	1,3	1,9	2,1	1,9	2,1	3,0	2,2	2,7	2,3	2,9
Non-family firms	2,3	1,7	1,3	1,6	1,6	2,2	2,4	2,8	6,6	7,1	6,8	6,9	8,0	9,1	8,5	8,5	7,7	7,9

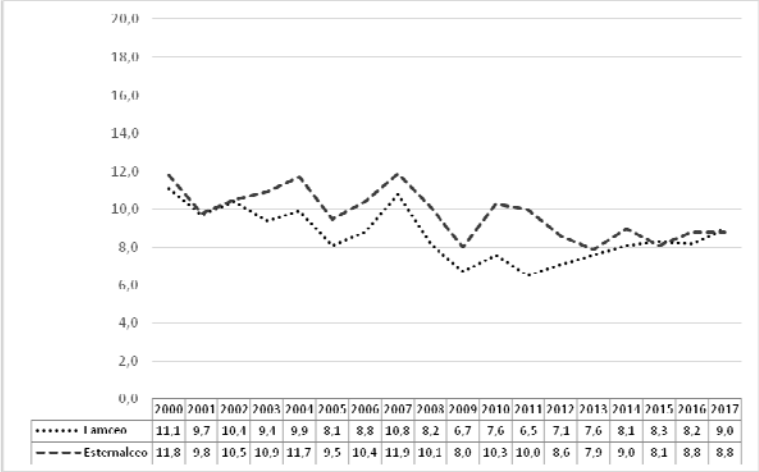
Focus on family CEOs

Overall, the data suggest that family firms are less impacted by exogenous shocks, while non-family firms seem to be subject to a stronger pressure from the market. Then, a crisis is more selective among non-family firms, than among family-controlled ones. During a crisis, only high-performing non-family firms survive, hence the increase in the average performance of non-family firms.

By observing the data, a question arises. Is the different performance between family and non family firms due to their different type of ownership (which is concentrated in family firms, and more dispersed in non family firms), 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 Figure 14, 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, and not by their external management.

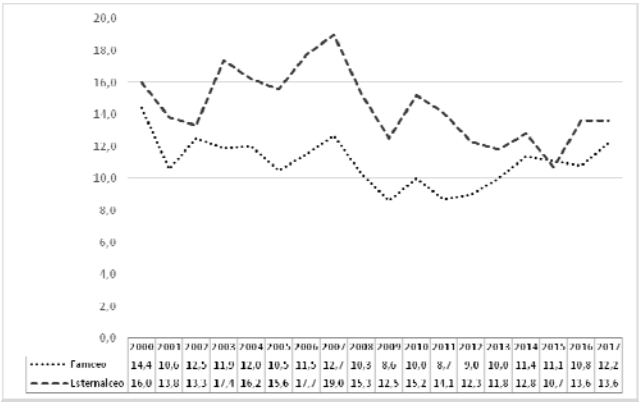
Figure 14: Average ROA in family firms by type of CEO



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Famceo	11,1	9,7	10,4	9,4	9,9	8,1	8,8	10,8	8,2	6,7	7,6	6,5	7,1	7,6	8,1	8,3	8,2	9,0
Esternalceo	11,8	9,8	10,5	10,9	11,7	9,5	10,4	11,9	10,1	8,0	10,3	10,0	8,6	7,9	9,0	8,1	8,8	8,8

The results on ROS represented in Figure 15 are in line with those on ROA. Family firms with a family CEO obtain lower profitability ratios than family firms with an external CEO (with the only exception for the year 2015), but overall family firms display a similar degree of volatility, regardless of their type of CEO.

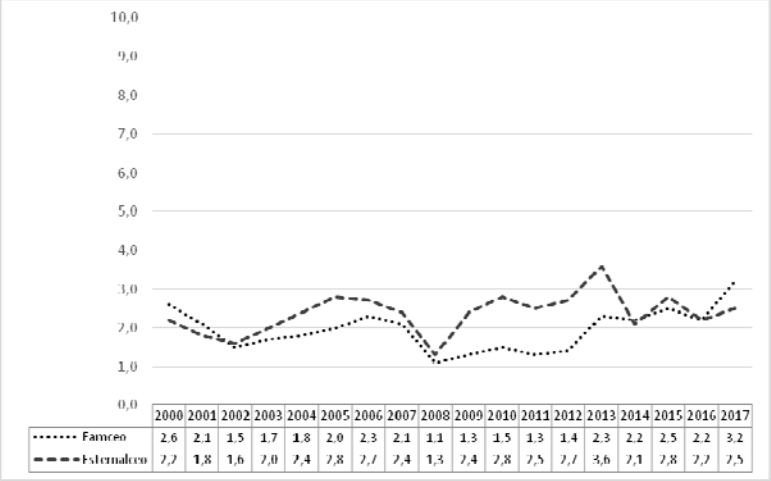
Figure 15: Average ROS in family firms by type of CEO



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Famceo	14,4	10,6	12,5	11,9	12,0	10,5	11,5	12,7	10,3	8,6	10,0	8,7	9,0	10,0	11,4	11,1	10,8	12,2
Esternalceo	16,0	13,8	13,3	17,1	16,2	15,6	17,7	19,0	15,3	12,5	15,2	11,1	12,3	11,8	12,8	10,7	13,6	13,6

Results are confirmed also by the performance in terms of market value in Figure 16, although in this case the performance gap between family CEOs and external CEOs is narrower, especially in the last few years.

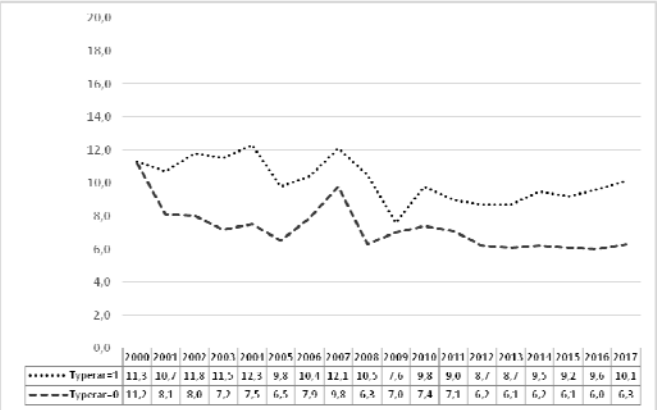
Figure 16: Average Tobin's Q in family firms by type of CEO



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Famceo	2,6	2,1	1,5	1,7	1,8	2,0	2,3	2,1	1,1	1,3	1,5	1,3	1,4	2,3	2,2	2,5	2,2	3,2
Externalceo	2,2	1,8	1,6	2,0	2,4	2,8	2,7	2,4	1,3	2,4	2,8	2,5	2,7	3,6	2,1	2,8	2,2	2,5

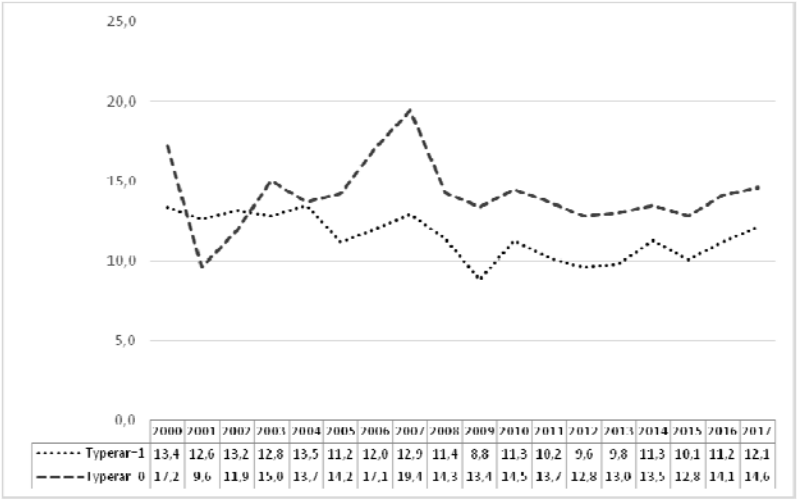
When looking at the role of product market competition, we observe that family firms perform better in differentiated product industries -relative to homogeneous product industries- in terms of ROA (Figure 17), but worse in terms of ROS (Figure 18). The results in terms of MTB displayed in Figure 19 are less clear-cut, but overall they seem to suggest that MTB is higher for family firms in differentiated product industries.

Figure 17: Average ROA of family firms in differentiated (typerar= 1) and homogeneous (typerar= 0) industries



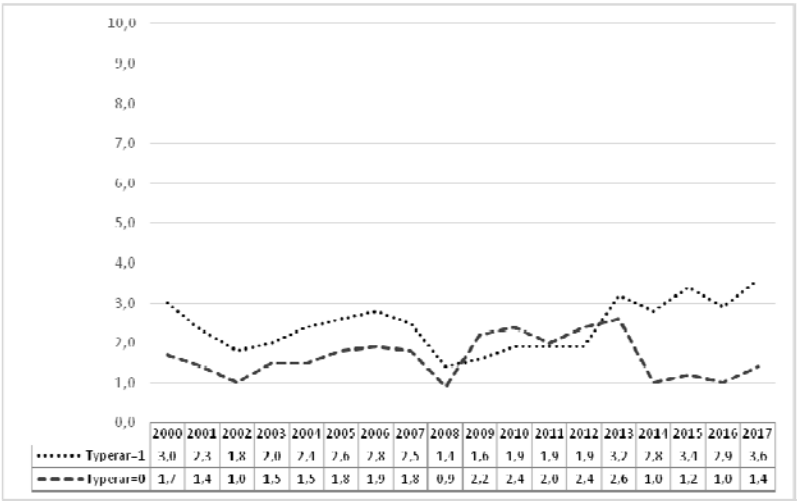
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Typerar=1	11,3	10,7	11,8	11,5	12,3	9,8	10,4	12,1	10,5	7,6	9,8	9,0	8,7	8,7	9,5	9,2	9,6	10,1
Typerar=0	11,2	8,1	8,0	7,2	7,5	6,5	7,9	9,8	6,3	7,0	7,4	7,1	6,7	6,1	6,2	6,1	6,0	6,3

Figure 18: Average ROS of family firms in differentiated (typerar= 1) and homogeneous (typerar= 0) industries



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Typerar=1	13,4	12,6	13,2	12,8	13,5	11,2	12,0	12,9	11,4	8,8	11,3	10,2	9,6	9,8	11,3	10,1	11,2	12,1
Typerar 0	17,2	9,6	11,9	15,0	13,7	14,2	17,1	19,4	14,3	13,4	14,5	13,7	12,8	13,0	13,5	12,8	14,1	14,6

Figure 19: Average MTB of family firms in differentiated (typerar= 1) and homogeneous (typerar= 0) industries



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Typerar=1	3,0	2,3	1,8	2,0	2,4	2,6	2,8	2,5	1,4	1,6	1,9	1,9	1,9	2,7	2,8	3,4	2,9	3,6
Typerar=0	1,7	1,4	1,0	1,5	1,5	1,8	1,9	1,8	0,9	2,2	2,4	2,0	2,4	2,6	1,0	1,2	1,0	1,4

4. Analysis of the relationship between 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 are endogenously determined by the contracting environment and they interact with firm value and performance. The contracting environment is different across firms in that it depends on both observable and unobservable firm characteristics that may, or not, vary over time. If the contracting environment affects both the decision about the size of the controlling share and the firm's performance, then the correlation between ownership and performance is spurious and may reflect a two-way causality relationship. In the empirical analysis, to reduce the potential omitted variable bias, we use several variables to proxy the firm, and industry specific contracting environment; moreover we try to capture unobserved time invariant firm heterogeneity by including industry- and firm-fixed effects.

The first step in our analysis of the relationship between firm ownership and performance is to study the determinants of firm ownership, where the largest ownership stake and then the "family" binary variable are the dependent variables. In a concentrated ownership setting like Italy, the largest stake most often defines the "controlling share", as the corporate governance setting is characterized either by the predominance of family firms, or by a large shareholder who holds an equity stake that enables him/her to exercise the firm's control (or close oversight of managers' decisions).

In Tables 3 and 4, we present the results of regressions that estimate the determinants of the controlling share and of the probability of having a controlling family, respectively. The set of control variables is similar in the two specifications. We estimate the panel regressions on the full sample, the private and the family sub-samples, using either industry or firm-fixed effects while the logit regressions use pooled data or account for industry fixed effects. The results in Table (3) and Table (4) are very similar so we describe them together.

We find a positive relationship between the stake held by the largest shareholder, or the family dummy, and firm performance (ROA), but the relationship exhibits diminishing returns, as both the equity share and the probability first increase and then decline at higher levels of ROA. This inverted U relationship may suggest that controlling shareholders tend to sell equity shares when the firm's results are at their best. The evidence is statistically weak, but stronger for the subsamples of family and private firms as well as when we account for industry- or firm-fixed effects that control for unobserved firm heterogeneity that may bias the results through reverse causality. Having controlled for time invariant factors, we also find that time-varying firm characteristics do influence the choice of the controlling share as well as the probability that the controlling shareholder is a family group. Notably, the significance and even the sign of estimated

coefficients differ a lot across the industry and firm fixed effects regressions, suggesting that neglecting the time invariant firm level component of heterogeneity seriously compromises the reliability of the results. We will note the same pattern further down when we estimate the determinants of firm performance.

Focusing on the coefficients from firm-fixed effects regressions, we observe that among private firms, and family firms in particular, there is a U-relationship between ownership and firm size, suggesting that large shareholders tend to keep a higher stake either in small firms or in very large companies. As a matter of fact, in Italy a new generation of middle-sized companies, quite dynamic and successful in the foreign markets went public during the last 20 years. It is possible that the wealth constrained entrepreneur-managers of these companies decided to tap the equity market spurred by growth opportunities and by the lack of financial resources, thus leading them to remain with a relatively lower equity share. In line with this interpretation is the U relationship between controlling share and firm age, as the above mentioned medium-sized, dynamic companies tend to be "in their prime", i.e. relatively young but more mature than startups or unicorns.

Turning to asset tangibility, a proxy for the scope of moral hazard, since tangible assets are easier to monitor and allow less managerial discretion, we find that the estimated coefficients of the quadratic specification are both insignificant (similarly in the linear one) but the signs of the linear and quadratic coefficients suggest an inverted-U relationship. This pattern is at odds with the idea that the equity share should increase with asset intangibility in order to reduce the scope for diversion of the firm's resources. Among the other control variables we find that ownership is negatively related to institutional investors' shareholding. On the one hand, this result may occur "by construction", but the similar evidence when using a dummy just denoting the presence of institutional investors (results available on request) may suggest a sort of reluctance by mutual funds to invest in companies where a large controlling share, or a dominating family, allow them no or small room to monitor or intervene in the decision-making. The evidence on the remaining variables, such as financial leverage, dual-class shares, listing in the STAR segment and industry profitability is statistically weak and imprecise. However, for example, the positive and almost significant coefficient on *Dual* in Table 4 is perhaps unexpected – why do family firms need with a large controlling share need to issue dual-class shares? – while the positive correlation between financial leverage and family ownership hint at the usual trade-off between (reluctance to issue) equity and debt in family firms, but might also suggest 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.

We now turn to investigate the reverse relationship between firm performance and ownership. Table (5) reports the results of firm fixed effects regressions on the full sample and on private firms. Firm performance is measured by ROA (results using the Tobin's Q, available on request, are similar but statistically weaker). The variable of interest, the controlling share, is transformed as *log[ctrl_share/(1-ctrl_share)]* and enters the regression also in a quadratic form and well as interacted with the *family firm* dummy to test if the ownership-performance relationship differs for family firms. The variables controlling for the contracting environment are the same as in the ownership regressions in Tables (3) and (4). All regressions include firm and year fixed effects.

We find that, for the full sample – i.e. including also companies controlled by the state - the relationship between firm performance and ownership is weak and mostly insignificant. When we exclude state-owned enterprises, the linear relation between *ROA* and *ctrsh_ln* turns positive and significant, while the family dummy remains insignificant and negatively signed. In Column (4) we test the quadratic specification and add the interactions with the family firm dummy. The quadratic form indicates that, for private, non-family firms the relationship between ownership and firm performance is positive, but exhibits negative marginal returns. In contrast, within family firms, the results suggest that firm performance first declines as the controlling share grows, but then it soars for very high equity shares. Comfortingly, most control variables are highly significant. We find that firm profitability is positively and significantly related with firm size, asset tangibility and financial leverage, and negatively related with firm age. In contrast, the aggregated equity share of institutional investors, the dual-class voting structure and the firm's listing in the STAR segment do not enter the equation significantly. We also control for the industry-level profitability, finding that the firm's ROA is positively correlated, but not in a significant way.

Summarizing the results so far, we find that firm ownership and performance are positively correlated, although with negative marginal returns. The relationship runs from profitability to ownership (controlling share or family ownership) though the evidence is weak, and also runs from firm ownership to firm profitability. Here the evidence is stronger, particularly within family firms, where, in contrast with non-family private firms, profitability exhibits positive marginal returns. Even though we have included several control variables in the performance equation as well as firm and year fixed effects to account for heterogeneity in the contracting environment across firms, we believe that the unobservable component of this heterogeneity remains high concurring to determine both ownership and performance and making this relationship endogenous. In the absence of a shock that allows a quasi-natural experiment, the usual solution would be to instrument the firm ownership variable, but the obvious candidates for instruments are the observed firm characteristics

that we include in the performance regressions to reduce the omitted variable bias. In the last section we try to address this problem alternatively.

For the moment, we keep on analyzing the relationship between family ownership and firm performance (ROA and Tobin's Q), exploring if and how the direct involvement of family members in firm management as Chief Executive Officers is related to firm performance. To this purpose, we focus on the role of the "Family CEO", when the CEO is related to the controlling family by blood or marriage, the "Founder CEO", when the founder still runs the firm and the "Heir CEO", when the CEO is a direct descendent of the founder. We present OLS, industry fixed effects and firm fixed effects results for the full, private and family firm samples. In the OLS and industry FE regressions we include two sectoral variables (at a level of aggregation different from the industry FE): *Typer*, a dummy denoting firms operating in R&D-intensive industries (i.e. with higher intangibles and soft capital and projects with less predictable and riskier outcomes, less easy to monitor) and *CR5_mean*, a dummy equal to 1 for firms operates in industries with 5-firm concentration ratio above the national mean in the industry (more market power may allow the firm to generate larger cash-flows for discretionary spending).

In Table 6 we present the results for the full sample, using ROA (Panel A) and Tobin's Q (Panel B) respectively. The first noticeable element is that family ownership is statistically significant only in OLS regressions (with ROA). As soon as we control for time invariant unobserved fixed effects at the industry or firm level the performance premium of family ownership disappears. The second element is that the firm fixed effects results show that although family ownership does not appear to affect profitability, the direct involvement in management of family members as CEO indeed seems to be significantly related with performance, and with different sign, depending on their positioning in the family dynasty, whether the founder, the heir, a descendant or a relative. Finally, the third feature of interest is the opposite effect that family in the broad sense plays on accounting (ROA) or market (Tobin's Q) performance, since we notice that the different kind of family CEOs enter the ROA or Tobin's Q regressions with an opposite sign. To interpret the results, remind that the specifications including all family-CEO types enable us to distinguish the additional "impact" on performance of being either the founder or an heir, with respect to the family ceo who is neither.

Focusing on the firm fixed effects results in Column (6), we find that having a family CEOs is positively related to the firm's accounting profitability, but negatively related to its market value as measured by the Tobin's Q. In contrast, while being the firm's founder appears unrelated (or

weakly harmful) to profitability, the relation turns positive when we look at the Tobin's Q. Similarly with the "heir", since the heir CEO is negatively associated with the ROA, but positively associated with market value.[5] The evidence does not change when we examine only private firms in Table 8. The results suggest that the equity market overvalues the "family brand" or "family halo" feature insofar as it is attached to the firm's founder or his/her direct descendant, regardless of the accounting performance of the firm. Moreover, the stark differences in the sign of coefficients depending on measures of performance and estimation methods suggests that both book and market measures of performance should be used to allegedly assess the "impact" of family ownership or involvement of firm performance, and that including firm-fixed effects is the minimum requirement to partially control for the unobserved cross-firm heterogeneity.

Finally, we focus on family firms to address another issue that is a concern for corporate governance scholars, the role and effect of powerful CEOs, that is of CEOs that are also chair the board of directors. In publicly listed family firms where the family's stake exceeds the legal majority and the CEO is a family member, the concentration of power is immense and one may wonder if there is a premium in terms of higher profitability or higher market value also for the minority shareholders. In Table 9, we present estimates of performance regressions using the sub-sample of family firms where we include the binary variable *CEO_Chair* to denote the dual role of the CEO along with the usual family CEO-types dummy. The purpose is to find the "effect" on ROA or Tobin's Q generated by the addition board' chair position, once the effect of being the CEO is already accounted for. Quite surprisingly, we find that the *CEO_chair* coefficient is negative but never statistically significant, although the results with market value, not far from significance might suggest that the equity market doesn't see well this concentration of power in a concentrated ownership context. Also interesting is that none of the dummies denoting family CEO types is significant, except for the "heir", that is, as before, negatively related with the firm's ROA.

5. Discussion of the regression results and further research questions

Overall, our results do not consistently suggest a performance premium of Italian family firms or CEOs (book- as well as markets-measured). See, for example, Berzins et al. (2018) on Norwegian firms for different evidence. If any, our evidence suggests that, after controlling for family ownership, family CEOs seem to generate a superior performance, but only when measured

[5] There is international evidence of a premium value for the founder (see for example Miller et al. (2007) and the literature cited therein, as well as of the negative impact on performance of the heirs.

by accounting profitability, as the stock exchange does not seem to assign additional value neither to family firms nor to family CEOs, unless they are the Founders. And yet, in Italy, even among publicly listed firms, family firms remain the predominant form of ownership. Hence, a research question worth of further investigation is why do "families" steadily and persistently keep such large majority stakes? What benefit do they have? Although we are aware that these questions pave the way to a new research, still we have considered a few possible explanations, and we have tentatively explored the data to look for provisional answers, by simply testing the mean differences of a few variables for family and non-family. Of course, these tests have all the limitations of univariate analyses, and we have already demonstrated how deeply the results change within a multivariate analysis, but we may nevertheless view them as preliminary tests of our hypotheses.

In the following, we consider potential reasons why families (and family shareholders) may continue to value keeping control, with large ownership stakes that inevitably does not allow them to diversify their risk, of firms which do not achieve significantly better results in terms of accounting performance or market value. Possible candidate answers suggested by the literature obviously relate to family utility maximization (instead of firm's) and rent extraction (Bertrand and Shoar (2003). Others relate to altruistic, relational or emotional aspects (Kallmuenzer, A., 2015). Here are our preliminary questions (some naïve) and answers:

- Family members may keep their high stake shareholders because they are in search of *monetary benefits* as represented by heft dividends. Test: do family firms distribute larger dividends? We find that, no, family firms distribute significantly lower dividends (Dividend to sales)
- Do family firms pay larger compensations to their family CEOs (another form of deriving *monetary benefits*) No, testing the differences in mean total pay of family and family CEOs (even within family firms) we find that family CEOs, also founders and heirs receive significantly lower compensations. Even external CEOs in family firms receive lower pay than CEOs in non-family firms.
- Do family firms provide larger incentives (i.e. larger share of bonus and non-monetary benefits of total pay) to their managers? No, the variable component of total pay for family CEOs is significantly lower (although both their total and variable pay appears more sensitive to performance than that of external CEOs (Graziano and Rondi, 2018, Abrardi and Rondi, 2019).

- Are family firms more likely to issue stock options, particularly to their family CEOs? Being in a position to easily manipulate the results, stock options could be an instrument to extract more rents from the firm. No, it appears that family firms tend to issue significantly less stock option plans, particularly to their family CEOs.
- Do family CEOs enjoy a quieter life, i.e. are fired less easily? Yes, we find that CEO turnover is significantly lower 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.
- Do family firms particularly use instruments of ownership-control separation, such as dual class shares? No, as shown also graphically, use of dual class shares is declining over time and does not differ across family and non-family firms.

One last question relates to the controlling share, which is unusually high. Indeed, lowering controlling share to thirty percent for robustness purposes does not change the pattern of any results, as it is evident that families wish to stay safely above the fifty percent limit. However, 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 the equity stake is significantly lower when the CEO is a member of the controlling family. This may indicate a trade-off between ownership and control within family firms, whereby the firm is held with a larger stake if it is run by an outsider.

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Table 1 – Variable descriptions

controllingshare	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 majority (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
Heir_CEO	Dummy =1 if CEO is also the firm's founder descendent
CEO_Chair	Dummy = 1 if the CEO is also Chair of the Directors' Board (managerial power
lrsales	Log of real sales (firm size)
tangi	Ratio of fixed assets to total assets (alleviation of agency costs)
debtf_ta	Ratio of financial LT and ST debt to total assets (financial dependence)
div_sal	Ratio of total dividends to sales
roa	Ratio of Ebitda to total assets (firm's accounting profitability)
Tobin's	Ratio of value firm value (total asset – book value of common equity + market value of common equity) to total asset (financial performance)
Mtb_eq	Market to book equity ratio (growth prospects)
firmage	Firm age from foundation
inst_inv	Dummy = 1 if institutional investors have an equity share >= 2% (Consob)
inst_share	Total equity share held by institutional investors with an equity share>=2% (Consob)
dual	Dummy = 1 if the firm issues dual-class shares (*azioni privilegiate*) (O-C separation)
star	Dummy = 1 if the firm lists in the STAR segment of the stock exchange (high transparency and corporate governance requirements)
rtotcomp	CEO's total compensation (salary + bonus + non-monetary benefits + other compensation)
varshapay	Ratio of the sum of salary and NMB to total pay
SO	Dummy = 1 if the firm has a stock option plan
roa_ind	Industry-level ratio of Ebitda to total assets (benchmark for profitability) (Mediobanca)
cr5_mean	5-firm concentration ratio at the industry level (2008-2015 average) (ISTAT)
typer	Dummy = 1 if the firm's primary activity is in a 3-digit industry with high R&D to sales ratio (see Davies, Lyons et al., 1996, for the methodology and the primary sources).

Table 2 - Summary statistics: All firms and Private firms

	All firms					Private firms		
	mean	sd	min	max	count	mean	sd	count
controllingshare	52.181	17.173	6.20	99.48	1735	53.966	16.607	1503.00
family	0.650	0.477	0.00	1.00	1744	0.749	0.434	1512.00
famceo	0.381	0.486	0.00	1.00	1744	0.440	0.497	1512.00
fond_ceo	0.139	0.346	0.00	1.00	1744	0.160	0.367	1512.00
erede_ceo	0.205	0.404	0.00	1.00	1744.00	0.236	0.425	1512.00
ceo_chair	0.289	0.454	0.00	1.00	1742.00	0.306	0.461	1510.00
roa	0.094	0.069	-0.24	0.52	1744.00	0.092	0.069	1512.00
mtb_tot	1.373	0.847	0.37	9.06	1744.00	1.382	0.845	1512.00
mtb_eq	2.056	2.685	0.01	40.42	1744.00	2.136	2.850	1512.00
lrsales	13.142	1.681	8.59	18.61	1744.00	12.996	1.474	1512.00
tangi	0.259	0.186	0.00	0.98	1741.00	0.226	0.151	1509.00
debtf_ta	0.280	0.154	0.00	0.83	1744.00	0.276	0.152	1512.00
firmage	59.018	41.544	0.00	270.00	1744.00	58.399	40.455	1512.00
instinv	0.513	0.500	0.00	1.00	1727.00	0.530	0.499	1495.00
inst_share	3.744	5.438	0.00	44.45	1727.00	4.054	5.687	1495.00
dual	0.319	0.466	0.00	1.00	1743.00	0.330	0.470	1511.00
star	0.343	0.475	0.00	1.00	1744.00	0.386	0.487	1512.00
rtotcomp	1005.90	1755.05	61.39	44972.44	1744.00	989.755	1794.64	1512.00
varshapay	0.154	0.215	0.00	1.00	1744.00	0.146	0.213	1512.00
stockoptiondum	0.321	0.467	0.00	1.00	1649.00	0.331	0.471	1429.00
roa_ind	0.074	0.035	-0.01	0.18	1730.00	0.071	0.033	1498.00
cr5_mean	19.438	14.810	2.53	83.54	1681.00	17.958	14.744	1461.00
typer	0.435	0.496	0.00	1.00	1744.00	0.470	0.499	1512.00

Table 2A - Summary statistics: Family and non-family private firms

	Family Firms			Non-family firms		
	mean	sd	count	mean	sd	count
controllingshare	60.415	9.809	1133	34.218	17.570	370
family	1.000	0.000	1133	0.000	0.000	379
famceo	0.576	0.494	1133	0.032	0.175	379
fond_ceo	0.163	0.370	1133	0.150	0.358	379
erede_ceo	0.297	0.457	1133	0.055	0.229	379
ceo_chair	0.339	0.473	1131	0.208	0.407	379
roa	0.094	0.068	1133	0.085	0.073	379
mtb_tot	1.407	0.884	1133	1.308	0.711	379
mtb_eq	2.193	2.929	1133	1.966	2.593	379
lrsales	12.803	1.213	1133	13.573	1.958	379
tangi	0.227	0.147	1130	0.222	0.164	379
debtf_ta	0.276	0.148	1133	0.276	0.165	379
firmage	57.902	38.836	1133	59.884	44.972	379
instinv	0.486	0.500	1125	0.665	0.473	370
inst_share	3.175	4.629	1125	6.727	7.494	370
dual	0.330	0.471	1132	0.330	0.471	379
star	0.440	0.497	1133	0.224	0.418	379
rtotcomp	814.599	996.146	1133	1513.374	3088.030	379
varshapay	0.123	0.202	1133	0.213	0.229	379
stockoptiondum	0.282	0.450	1074	0.479	0.500	355
roa_ind	0.071	0.032	1121	0.071	0.036	377
cr5_mean	16.279	12.941	1089	22.875	18.217	372
typer	0.464	0.499	1133	0.485	0.500	379

Table 2B - Summary statistics: Family and non-family CEOs in family firms

	Family CEOs			Non-family CEOs		
	mean	sd	count	mean	sd	count
controllingshare	58.922	10.044	653	62.445	9.105	480
family	1.000	0.000	653	1.000	0.000	480
famceo	1.000	0.000	653	0.000	0.000	480
fond_ceo	0.283	0.451	653	0.000	0.000	480
erede_ceo	0.504	0.500	653	0.015	0.120	480
ceo_chair	0.524	0.500	653	0.086	0.280	478
roa	0.091	0.067	653	0.099	0.068	480
mtb_tot	1.361	0.736	653	1.470	1.050	480
mtb_eq	1.983	2.004	653	2.478	3.830	480
lrsales	12.669	1.227	653	12.987	1.171	480
tangi	0.219	0.129	650	0.237	0.169	480
debtf_ta	0.261	0.143	653	0.295	0.151	480
firmage	62.933	42.141	653	51.058	32.643	480
instinv	0.417	0.493	645	0.579	0.494	480
inst_share	2.745	4.447	645	3.751	4.808	480
dual	0.407	0.492	653	0.225	0.418	479
star	0.392	0.489	653	0.504	0.501	480
rtotcomp	727.014	807.558	653	933.750	1196.957	480
varshapay	0.079	0.164	653	0.183	0.232	480
stockoptiondum	0.208	0.406	631	0.388	0.488	443
roa_ind	0.073	0.032	646	0.067	0.032	475
cr5_mean	16.472	13.564	617	16.026	12.088	472
typer	0.482	0.500	653	0.440	0.497	480

Table 3 - Determinants of the largest ownership share (i.e. controlling share)

Ctrsh_ln	(1)	(2)	(3)	(4)	(5)	(6)
	All Firms		Private Firms		Family Firms	
	Industry FE	Firm FE	Industry FE	Firm FE	IndustryFE	Firm FE
roa	0.0140	0.819	0.0881	0.899	-0.530	1.630
	(0.749)	(0.705)	(0.665)	(0.722)	(0.629)	(1.122)
roa2	-0.918	-3.720*	0.720	-3.628	-1.733	-7.140*
	(2.012)	(1.890)	(2.920)	(2.460)	(2.853)	(3.806)
lrsales	1.135***	0.0880	1.411***	-0.221	0.791	-1.349**
	(0.256)	(0.447)	(0.351)	(0.716)	(0.588)	(0.632)
lrsales2	-0.0426***	-0.000421	-0.0517***	0.0119	-0.0291	0.0515**
	(0.00889)	(0.0165)	(0.0130)	(0.0265)	(0.0223)	(0.0234)
tangi	0.644	-0.375	1.684	1.005	0.322	0.101
	(0.848)	(0.594)	(1.162)	(1.207)	(0.577)	(0.637)
tangi2	-0.827	0.690	-2.795	-2.065	-0.681	0.124
	(1.025)	(0.649)	(1.741)	(2.045)	(0.872)	(0.812)
firmage	0.00271	-0.0264*	-0.000668	-0.0309*	-0.00298	-0.0241***
	(0.00413)	(0.0158)	(0.00347)	(0.0167)	(0.00251)	(0.00885)
firmage2	-0.00000603	0.000161	0.00000543	0.000188	0.0000130	0.0000764*
	(0.0000179)	(0.000132)	(0.0000159)	(0.000138)	(0.0000111)	(0.0000399)
debtf_ta	-0.171	-0.299	0.0753	-0.343	-0.277	0.0889
	(0.444)	(0.404)	(0.431)	(0.415)	(0.269)	(0.249)
mtb_eq	0.00818	-0.00582	0.00168	-0.0129*	0.0142**	0.00317
	(0.0120)	(0.00648)	(0.0114)	(0.00786)	(0.00594)	(0.00430)
inst_share	-0.0436***	-0.0192***	-0.0452***	-0.0198***	-0.0106*	-0.00554
	(0.00963)	(0.00719)	(0.00970)	(0.00741)	(0.00628)	(0.00451)
dual	0.186	-0.0296	0.0519	-0.0666	-0.0298	-0.0211
	(0.124)	(0.0924)	(0.115)	(0.105)	(0.0867)	(0.115)
star	0.137	0.238	0.0735	0.237	-0.0789	0.170
	(0.132)	(0.156)	(0.134)	(0.157)	(0.0914)	(0.172)
roa_ind	-1.120	0.371	-2.633	-1.429	-1.095	-0.480
	(1.848)	(1.287)	(2.124)	(1.966)	(1.016)	(0.981)
Firms (Obs.)	153(1794)	153(1794)	132(1555)	132(1555)	103(1162)	103(1162)

Dependent variable is Ctrsh_ln, i.e. the natural logarithm of the ratio (Controllinshare/(1-Controllingshare)). Year fixed effects are included. Robust standard errors clustered by firm in parentheses * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4 - Determinants of "family" ownership (Logit regressions)

Dependent variable: Family ownership (1/0)	(1)	(2)	(3)	(4)
	All Firms		Private Firms	
	Pooled	Industry FE	Pooled	Industry FE
roa	4.149	4.626	6.384**	5.505
	(2.956)	(4.638)	(3.206)	(4.680)
roa2	-7.194	-20.00	-19.11	-22.59
	(14.18)	(17.99)	(17.02)	(18.23)
lrsales	5.240***	5.648**	5.219***	6.806**
	(1.619)	(2.256)	(2.001)	(2.938)
lrsales2	-0.210***	-0.226***	-0.208***	-0.273**
	(0.0612)	(0.0872)	(0.0752)	(0.113)
tangi	5.061	4.049	3.848	3.194
	(3.173)	(4.038)	(3.331)	(4.272)
tangi2	-10.73**	-6.954	-6.145	-5.785
	(4.702)	(4.931)	(4.888)	(5.341)
firmage	0.00949	0.0105	0.0129	0.00581
	(0.0120)	(0.0151)	(0.0124)	(0.0160)
firmage2	-0.0000504	-0.0000923	-0.0000574	-0.0000707
	(0.0000602)	(0.0000843)	(0.0000577)	(0.0000852)
debtf_ta	1.100	1.920	1.307	2.224
	(1.224)	(1.922)	(1.408)	(2.165)
inst_share	-0.0949***	-0.151***	-0.124***	-0.149***
	(0.0253)	(0.0348)	(0.0264)	(0.0357)
dual	0.617	0.724	0.397	0.561
	(0.418)	(0.466)	(0.409)	(0.488)
star	0.717*	0.507	0.534	0.309
	(0.430)	(0.587)	(0.476)	(0.618)
roa_ind	-7.646	-1.908	0.676	2.503
	(5.330)	(8.524)	(5.889)	(10.47)
mtb_eq	0.0673	0.0828	0.0290	0.0851
	(0.0640)	(0.0928)	(0.0559)	(0.102)
Firms (Observations)	153 (1794)	119 (1463)	132 (1555)	105 (1304)

Logit Estimates. Dependent variable is Family binary variable = 1 when either the largest individual or a group of individual shareholders belonging to the same family have more than 50% of the equity shares. All regressions include year fixed effects. Robust standard errors clustered by firm in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 5 - Firm performance (ROA), controlling share and family ownership

ROA	All firms (1)	All Firms (2)	Private Firms (3)	Private Firms (4)
ctrsh_ln	0.00466 (0.00364)	0.00284 (0.00725)	0.00754** (0.00371)	0.0111* (0.00685)
ctrsh_ln2		0.000180 (0.00144)		-0.00117 (0.00121)
family	-0.00380 (0.0179)	-0.00152 (0.0182)	-0.00818 (0.0181)	-0.00917 (0.0182)
ctrsh_ln_fam		-0.0101 (0.0115)		-0.0204* (0.0117)
ctrsh_ln2_fam		0.00947** (0.00435)		0.0116*** (0.00435)
lrsales	0.0227*** (0.00586)	0.0227*** (0.00575)	0.0260*** (0.00616)	0.0257*** (0.00613)
tangi	0.0709** (0.0292)	0.0716** (0.0300)	0.0838** (0.0360)	0.0848** (0.0366)
debtf_ta	0.0399*** (0.00553)	0.0400*** (0.00531)	0.0389*** (0.00508)	0.0382*** (0.00488)
firmage	-0.00307*** (0.000672)	-0.00298*** (0.000649)	-0.00298*** (0.000676)	-0.00292*** (0.000650)
inst_share	0.0000989 (0.000469)	0.000151 (0.000466)	0.000124 (0.000490)	0.000226 (0.000492)
dual	0.000925 (0.00669)	-0.000301 (0.00635)	-0.00129 (0.00747)	-0.00275 (0.00710)
star	0.0161* (0.00943)	0.0141 (0.0101)	0.0138 (0.00918)	0.0112 (0.00969)
roa_ind	0.227 (0.158)	0.233 (0.160)	0.175 (0.186)	0.179 (0.187)
Firms (Obs.)	153(1807)	153(1806)	132(1568)	132(1567)

Firm and Year fixed effects are included. Robust standard errors clustered by firm in parentheses * p <0.10, ** p < 0.05, *** p < 0.01

Table 6 – Panel A: Performance and Family Ownership (ROA) – All firms

ROA	OLS		Industry FE		Firm FE	
	(1)	(2)	(3)	(4)	(5)	(6)
	ROA					
family	0.0198**	0.0179**	0.0125	0.00831	0.00251	-0.00165
	(0.00851)	(0.00874)	(0.0103)	(0.00998)	(0.0133)	(0.0119)
famceo	-0.00688	0.0139	0.000404	0.0296***	-0.00731	0.0187*
	(0.00720)	(0.0107)	(0.00756)	(0.00893)	(0.00744)	(0.0104)
Founder_CEO		-0.0255*		-0.0329***		-0.0263
		(0.0130)		(0.0117)		(0.0169)
Heir_CEO		-0.0276**		-0.0397***		-0.0426***
		(0.0114)		(0.00995)		(0.0138)
Control variables:	YES	YES	YES	YES	YES	YES
Firm size, tangibility, age, leverage, MTB, Dual class, Inst Inv. Industry ROA, CR5, R&D intensity, Year dummies						
Firms (Obs.)	144 (1738)	144 (1738)	144 (1738)	144 (1738)	144 (1738)	144 (1738)

Panel B - Performance and Family Ownership (Tobin's Q) – All firms

Tobin's Q	OLS		Industry FE		Firm FE	
	(1)	(2)	(3)	(4)	(5)	(6)
	Tobin's Q					
family	0.171	0.161	0.0912	0.108	0.0133	0.0575
	(0.126)	(0.127)	(0.113)	(0.119)	(0.0665)	(0.0662)
famceo	-0.127	-0.162	-0.186**	-0.274**	0.00140	-0.197*
	(0.0920)	(0.107)	(0.0756)	(0.133)	(0.0657)	(0.104)
Founder_CEO		-0.0206		0.118		0.299*
		(0.143)		(0.167)		(0.166)
Heir_CEO		0.0829		0.107		0.231*
		(0.108)		(0.127)		(0.136)
Control variables:	YES	YES	YES	YES	YES	YES
Firm size, tangibility, age, leverage, MTB, Dual class, Inst Inv. Industry ROA, CR5, R&D intensity, Year dummies						
Firms (Obs.)	144 (1738)	144 (1738)	144 (1738)	144 (1738)	144 (1738)	144 (1738)

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

Table 7 – Panel A: Performance and Family Ownership - Private-owned firms (ROA)

	Industry FE	Industry FE	Firm FE	Firm FE
Panel A	ROA			
	(1)	(2)	(3)	(4)
family	0.0162	0.0106	-0.000211	-0.00185
	(0.0120)	(0.0116)	(0.0135)	(0.0118)
famceo		0.0296***		0.0185*
		(0.00939)		(0.0108)
Founder_CEO		-0.0327**		-0.0254
		(0.0125)		(0.0173)
Heir_CEO		-0.0392***		-0.0436***
		(0.0102)		(0.0140)
Control variables lrsales, tangi, mtb, debtf_ta, mtb, dual, firmage, inst_share, star, roa_ind, typer, cr5-mean	YES	YES	YES	YES
Firms (Observations)	126 (1511)	126 (1511)	126 (1511)	126 (1511)

Panel B: Performance and Family Ownership - Private-owned firms (Tobin's Q)

Panel B	Tobin's Q			
	(1)	(2)	(3)	(4)
family	0.0480	0.128	0.0437	0.0909
	(0.121)	(0.132)	(0.0745)	(0.0790)
famceo		-0.196		-0.202**
		(0.132)		(0.0987)
Fond_CEO		0.0610		0.291*
		(0.168)		(0.157)
Erede_CEO		0.0712		0.215*
		(0.124)		(0.127)
Control variables lrsales, tangi, mtb, debtf_ta, mtb, dual, firmage, inst_share, star, roa_ind, typer, cr5-mean	YES	YES	YES	YES
Observations	126 (1511)	126 (1511)	126 (1511)	126 (1511)

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

Table 8 - Powerful CEOs in Family Firms (Dependent variables are ROA or Tobin's Q) -

	(1)	(2)	(3)	(4)	(5)	(6)
	ROA			Tobin's Q		
famceo	-0.00531			0.0722		
	(0.00917)			(0.0834)		
Fond_CEO		0.00833			0.0751	
		(0.0119)			(0.112)	
Erede_CEO			-0.0183*			0.0528
			(0.0102)			(0.104)
CEO_Chair	-0.00365	-0.00822	-0.00243	-0.150	-0.131	-0.125
	(0.00746)	(0.00672)	(0.00638)	(0.105)	(0.0921)	(0.0851)
Control variables lrsales, tangi, mtb, debtf_ta, mtb, dual, firmage, inst_share, star, roa_ind	YES	YES	YES	YES	YES	YES
Firms (N. Obs.)	103(1160)	103(1160)	103(1160)	103(1160)	103(1160)	103(1160)

Firm fixed effects estimates. Year fixed effects are included. Robust, clustered standard errors in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$