

# Ownership and Board Structure in Italy (1978-2003)

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**Abstract:** We look at ownership and board structure of Italian firms in selected years extending over 1978-2003. We investigate the determinants of board structure, and how ownership and board structure affect firm valuation. Contrary to conventional wisdom, we find that ownership structure in Italy has changed sharply over time, while board size and composition have tended to remain stable. However board structure is remarkably variable across firms. In particular, board size is directly related to firm size and inversely related to the cash flow rights held by the controlling shareholder. The proportion of non-executive directors increases in larger boards and when the roles of Chairman and CEO are held by the same person. In family firms, ownership structure is a strong determinant of board structure. When the controlling family holds a large stake of cash flow rights (and makes less recourse to control-enhancing mechanisms), the proportion of board seats held by family members is higher and a family chairman is more likely, however the percentage of seats held by independent directors is also higher. This seems to be inconsistent with an entrenchment story. Finally, Tobin's Q is related to firm characteristics (specifically to ownership structure and pyramiding), but not to board structure.

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## 1. Introduction

In this study, we provide evidence about the board structure of Italian listed companies in the long run.

According to conventional wisdom, boards of directors having certain features are desirable: in particular, boards should preferably be small, have a high fraction of outside members, and the roles of Chairman and CEO should be held by different persons. It is argued that such board structures may reduce agency costs and, consequently, have a positive impact on firm performance and/or value. The Corporate Governance movement, which has developed worldwide after the UK Cadbury Committee recommendations in 1992, has often taken this conventional wisdom as a leading principle. In the last few years pressure has been mounting from active investors, from the financial press, and even from regulators to induce listed companies to adopt board structures in line with this principle. Interestingly, proposals are gradually becoming more prescriptive: requests have evolved from mere transparency into “comply or explain” recommendations, and are increasingly translated into mandatory regulatory requirements.

The economic foundations of these recommendations are, however, less solid than they appear. So far, the existing literature has been unable to produce sufficient justification for proposals in favor of “one-size-fits-all” corporate governance (and, in particular, board) models. Three main possible determinants of board effectiveness have been investigated: a) board size, defined as the number of directors sitting on the board; b) board composition, defined in terms of non-executive directors (outsiders) vs. executives, and c) board leadership, defined in terms of Chairman-CEO combination (also referred to as CEO duality) vs. separation.

Existing theoretical work recognizes that board structure decisions imply trade-offs. For example, inside directors often possess information that is useful for firm decision-making, but may lack the proper incentives to reveal it, or to maximize firm value (Hermalin and Weisbach, 1998; Raheja, 2005; Harris and Raviv, 2008; Adams and Ferreira, 2007). On the other hand, outside directors may provide relevant complementary knowledge (Fama and Jensen, 1983) and monitor executives. A higher number of outsiders on the board may therefore increase the quality of monitoring, but it will also raise the costs of coordinating efforts and may lead to a free-rider problem (Raheja, 2005). In a similar vein, Brickley et al. (1997) and Dahya and Travlos (2000) outline that combining the positions of Chairman and CEO yields a clearer leadership, assures more rapid and effective decisions and avoids the costs of transferring information to an (outside) Chairman. However, CEO duality reduces board independence and weakens the monitoring of the (Chairman-)CEO. Moreover, it is also debated whether board structure performs a substantial role in keeping agency costs low. An alternative interpretation is that board structure might simply be a signal sent by the controlling shareholders to show their commitment not to consume “excessive” private benefits. Finally, according to a “behavioral” point of view, board structure might have no particular value per se, but would be subject to fashions (and fads).

Thus the theory is inconclusive, i.e. no structure appears to be clearly preferable in all (or even most) situations. No single board structure seems to fit all companies. On the contrary, board size, composition and leadership are likely to reflect the advising and monitoring needs

of each company. For example, large, complex and diversified firms are expected to have larger boards, and a higher proportion of outside directors. The idea that board structure may vary with firms characteristics has been explored in several empirical works. Denis and Sarin (1999), Gillan, Hartzell and Starks (2003), Lehn, Patro and Zhao (2003), Boone et al. (2004), Coles, Daniel and Naveen (2008), Linck, Netter and Yang (2007), find cross-sectional differences in board size and composition. Dahya (2004) and Faleye (2008) provide evidence of cross-sectional differences in board leadership. Unsurprisingly, the empirical evidence casts doubts on the optimality of “one-size-fits-all” models.

A limit of the existing literature is that most studies are based on evidence from U.S. and U.K., i.e. countries where dispersed ownership prevails. So their conclusions cannot be generalized to other countries (Dahya 2004). It has long been recognized that conflicts of interest and agency costs are different where ownership is concentrated. Hence by studying board determinants in a concentrated setting, we are better able to evaluate if board structures have different, and maybe unexpected, implications.

Boards of directors are recognized to perform an important function in the control of conflicts of interest and agency costs. These, in turn, may be affected by the ownership structure of companies (Enriques and Volpin, 2007). Under concentrated ownership, the controlling shareholder usually takes an active role in running the company, by choosing and monitoring managers and often by directly taking executive positions. That provides, per se, a better alignment between managers and controlling shareholders. However, small investors, providing equity capital but taking no role in decision-making, suffer a risk of expropriation.

This risk may be particularly severe when control lies in the hands of families. Actually, family control seems to have a positive impact on both firm value and performance. However, the risk of expropriation tends to increase (and firm value to decrease), if families make use of control-enhancing mechanisms (e.g. pyramids, dual-class shares and cross-shareholdings) (ISS-Shearman Sterling-ECGI, 2007) to create a wedge between cash flow and control rights (La Porta et al., 2002; Claessens et al., 2002; Villalonga and Amit, 2006 and 2007; Barontini and Caprio, 2006).

Boards of directors can serve other purposes, as they can contribute exacerbate the controlling family’s entrenchment. Villalonga and Amit (2007) find, in U.S. family firms, that an important mechanism of family control is a disproportionate representation of family members on the board. Installing family members as managers does not necessarily harm firm value, if family directors effectively control managers and/or if family executives are at least as smart as alternative non-family candidates. However, the evidence in a number of U.S. studies indicates that family CEOs are often more entrenched than non-family ones.

A second limit of previous literature is its relatively short-time horizon. The existing evidence is based either on cross-sectional (i.e. on a single point in time) or on panel data analyses on a limited number of years. Ownership and board structures are indeed *structures*, i.e. tend to remain stable over time, but they are not immutable. Investigating the determinants of board structure from a “historical” perspective may complement existing evidence and also allow to account for possible path dependence. Bebchuk and Roe (1999) argue that there are significant sources of path dependence in a country’s pattern of corporate ownership, i.e. ownership structures at any point in time may depend, at least in part, on the patterns they

followed at earlier stages. If board structures are somehow related to ownership structures, then they might follow a related pattern. A number of papers have taken such perspective in analyzing ownership and corporate governance structures (Franks, Mayer and Rossi, 2004; Aganin and Volpin, 2005; Morck, 2005); however, no systematic evidence is available on board structure dynamics in the long run. Besides, such approach may, *inter alia*, allow to put into perspective factors which may have only a transient explanatory power.

In sum, little is known about the causes and consequences of the adoption of particular board structures, and virtually no evidence is available about their variation both across firms and countries and about their evolution over time. Nonetheless, principles of “best practice” are mainly developed on the basis of anecdotal evidence, and are increasingly proposed (and sometimes mandated) as solutions having a general validity, well beyond the boundaries of their original formulation. Therefore, it seems important to get a better understanding of the determinants of board structure and their possible implications.

Our paper is one step in this direction. We analyze board structure in terms of the three main factors potentially influencing board effectiveness, i.e. board size, composition (executives vs. non executives) and leadership (Chairman-CEO combination vs. separation). We devote particular attention to family firms and explore how firm characteristics and ownership variables are related to the proportion - on the board - of both family members and “independent” directors (i.e. directors that are neither family members nor executives), and to whether the Chairman is a family member. Finally, we investigate whether firm characteristics and ownership variables affect board attributes, and also whether board features affect firm valuation.

We contribute to the existing literature in several ways .

First, our paper is one of the few to analyze board structures in a country where concentrated ownership is largely prevalent. In this regard, Italy is an ideal candidate, due to its “bad reputation” in corporate governance issues. According to previous literature (La Porta et al., 1998; Zingales, 1994; Nenova, 2003; Dyck and Zingales, 2004), in Italy investor protection is weak, the risk of expropriation by controlling shareholders is high, the ownership structure of listed companies is mostly concentrated in the hands of families and control-enhancing mechanisms are used rather frequently. So far little evidence exists on board structure in non-Anglosaxon countries. Barontini and Caprio (2002) and Volpin (2002) focus on Italy; however, they investigate executive turnover, and its relation with ownership variables and firm value. Yeh and Woitdke (2005) examine the determinants of board composition and firm value in Taiwan - a country that also features high ownership concentration and weak investor protection - but they consider a single point in time. Dahya, Dimitrov and McConnell (2008) look at countries with dominant shareholders; however, their aim – differently from ours – is to detect if independent directors affect firm value.

Second, our paper is the first to analyze board structure from a long-term perspective. We use a unique database that contains data on ownership and board structures of all listed companies at selected points in time covering the last thirty years (namely 1978, 1988, 1998 and 2003). Most data were hand-collected and we relied on a variety of sources in order to overcome the scarcity of information in remote years (especially as far as ownership, family ties and also financial statements are concerned).

Third, by using a variety of information sources, we could improve on previous studies on a number of methodological issues. For all companies/year, we are able: a) to trace back the control chain, detecting the ownership structure of any unlisted firm along the chain and all cross-shareholdings between listed companies, and hence to identify the ultimate shareholder more clearly; b) to detect family relationships more precisely (among shareholders and/or directors); c) to abandon the usual, simplifying assumption that non voting shares are dispersed among small investors and identify the stakes actually held – directly or indirectly – by the ultimate control shareholder; consequently, we obtain more precise measures of cash-flow and voting rights held by the controlling shareholder.

The structure of the paper is as follows. In Section 2, we describe the dataset and provide summary statistics. In Section 3, we investigate the determinants of board structure. In Section 4, we analyze the relationship between board structure and firm value. Section 5 concludes.

## 2. Description of the dataset

Our sample includes all non-financial companies listed on the Italian Stock Exchange in 1978, 1988, 1998 and 2003. We exclude foreign companies, i.e. companies incorporated abroad (but include foreign-controlled companies, that is domestic firms whose ultimate shareholder is a company incorporated abroad). Accounting data, board composition and stock prices for each year were hand-collected from “*Il taccuino dell’azionista*”, an annual publication edited by Databank and Il Sole 24 Ore. For data on ownership structure we relied on “*Il taccuino dell’azionista*”, “*Il calepino dell’azionista*”, a yearbook edited by Mediobanca, and De Luca (2002), a book that contains the history of listed companies in Italy. For most recent years ownership data are available on the website of Consob (the Italian Stock Exchange regulatory authority). For all years and either for listed companies or for companies along the control chain, additional information on ownership structure, group structure, and family ties were taken from IPO prospectuses and from the database of Il Sole 24 Ore (the leading Italian financial newspaper). We deleted 42 companies across the years due to lack of data<sup>3</sup>.

Table 1 provides summary statistics. Panel A reports key firm variables (the definition is provided in the Appendix). On average Italian listed firms have been operating for 50 years since their foundation. The median age has sharply decreased in 2003, due the new listings of small and medium-size companies that took place from the second half of the ’90s (Rigamonti, 2007). The average size of Italian listed companies fluctuates over the decades. The large discrepancy between mean and median size also reflects the fact that the stock exchange is mostly made up by small and medium companies.

### 2.1. Identity of the controlling shareholder

We classify firms into five categories according to the type of ultimate shareholder. We assume a control threshold of 10% at the level of the listed company. If no shareholder

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<sup>3</sup> These cases are typically firms which were, alternatively: a) delisted shortly after the reference date (through a voluntary offer by controlling shareholders – e.g. Manuli in 2003 – or after entering a bankruptcy procedure – e.g. Parmalat in 2003), or b) “suspended” from trading (though still officially listed) for very long periods (in a number of cases, the controlling shareholder was prosecuted – and sometimes convicted – for financial frauds).

exceeds the given threshold, the firm is said to be widely held. In this category, we also include corporations controlled by widely-held companies or by widely-held financial institutions. A family-controlled company is either controlled by a family, a family coalition or an individual. We rely on the information in IPO prospectuses as well as on news in the economic press to identify family members (this allows us to identify the spouse and other relatives of the ultimate shareholder having a different family name). Stakes held by family members are summed up. If a firm is controlled by two families with approximately the same stake of voting rights, we say that the company is controlled through a family coalition and add up the two stakes<sup>4</sup>. A State-controlled company is controlled by the national government, a local authority, or a government agency. A company is said to be foreign controlled when it is controlled by a foreign company or a foreign financial institution. Other includes residual entities<sup>5</sup>.

Family firms are the dominant feature of the Italian capitalism over the whole period (Table 1, Panel B). Almost 75% of listed companies are controlled by a family. A remarkable phenomenon is the decrease of the percentage of companies controlled by the State. This reflects the program of restructurings and privatizations that took place in Italy in the early '90s. Also significantly reduced is the presence of foreign companies controlling domestic firms.

## 2.2. *Separation of ownership and control*

We follow previous literature (La Porta, Lopez-de-Silanes and Shleifer, 1999; Claessens, Djankov and Lang, 2000; Faccio and Lang, 2002; Claessens, Djankov, Fan and Lang, 2002), and measure ownership and control in terms of cash flow and voting rights.

To measure voting rights, we consider direct and indirect stakes in the company, that is stakes usually held through an unlisted company. With respect to previous literature, we improve on the measurement of voting rights as we are able to trace the owners of unlisted firms that either directly or indirectly own a stake in the listed company based on the information in IPO prospectuses and in the economic newspaper *Il Sole 24 Ore*.

We consider the mechanisms used to secure voting rights in excess of cash flow rights, that is non-voting and preferred shares, pyramids and cross-holdings.

In line with earlier studies, when the company is part of a pyramidal group, we compute voting rights as the smallest stake along the control chain. Cash flow rights are measured by the product of ownership stakes along the pyramidal structure. The discrepancy between cash

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<sup>4</sup> Consider, for example, the case of Sol SpA. The company, that went public in 1998, is controlled by a Netherlands-based foundation – Stichting Airvision BV. The IPO prospectus and the news in the press report that Stichting Airvision is owned by two controlling families – Annoni and Fumagalli (with no identification of the stakes held by each family). Hence we define this as a family coalition. Similarly, in Cantoni SpA of 1978, the relative majority stake is held by the families Jucker and Soldini, that are heirs of the managers who developed the company at the turn of the 20th century. Family coalitions amount to 14% of all families in 1978, to 5% in 1988, to 8% in 1998 and 8% in 2003.

<sup>5</sup> These are mostly situations where control is being transferred at the reference date (e.g. Birra Wührer in 1978 was being sold by the Lucchini family to BSN Danone; however, at the reference date, they both held a 30% stake each) or situations where it is impossible to disentangle the stakes held by a multitude of different shareholders through an unlisted company, often incorporated abroad. It is, for example, the case of Intek SpA, that is controlled by an unlisted firm (Quattrodue) that is a vehicle created for the MBO.

flow and voting rights is measured by the O/C ratio, that is the ratio of cash flow (O) to voting rights (C).

We account for non voting and preferred shares in the ownership structure<sup>6</sup>. Data, not reported in the tables, reveal that DCS were used by 16% of companies in 1978, 46% in 1988, 33% in 1998 and 17% in 2003. Thus the use of non common stocks was at its highest level in 1988 and from that on their use began to shrink. Though mainly issued by family firms, non voting shares were also widespread among all other companies.

Contrary to previous literature that assumes that the ultimate shareholder holds none of them, we are able to compute the stake of non common stocks held by the controlling owner. The information is provided by “*Il calepino dell’azionista*”. The ownership of non common shares by the ultimate shareholder turns out to be non negligible in a number of cases. Consider, for example, Linificio SpA in 1998. The company is controlled by Marzotto SpA (also listed) with a direct stake of 54.06%, that is controlled by the Marzotto family with a stake of 25.41%. So 25.4% represents the voting rights held by the ultimate shareholder. Linificio has also non voting stocks that represent 34.5% of capital. Marzotto SpA owns a stake of 25.7% of non voting shares. Marzotto SpA also has non voting shares outstanding that amount to 14.8% of capital. If we were to make the usual assumption that non voting shares are dispersed among investors, the cash flow rights held by the ultimate shareholder would amount to 7.7% ( $0.5406 \cdot (1 - 0.345) \cdot 0.254 \cdot (1 - 0.148)$ ) and the O/C ratio would be equal to 0.30. Since we account for the stake of non voting stocks held by the controlling shareholder, the cash flow rights turn out to be 9.6% [ $(0.5406 \cdot (1 - 0.345) + 0.345 \cdot 0.257) \cdot 0.254 \cdot (1 - 0.148)$ ] and the O/C ratio raises to 0.38.

We also account for treasury stocks held by the listed company<sup>7</sup>. Under the Italian company law, treasury stocks do not pay dividends and have no voting rights, so this impacts on the computation of cash flow and voting rights, as both voting and cash flow rights are strengthened, even if no separation between ownership and control is created. An example is given by Merloni Elettrodomestici SpA in 2003. The company is controlled by the Merloni family with a direct stake of 61.023%. There are only common stocks outstanding. Merloni Elettrodomestici owns 10.404% of its own shares. This leaves a capital stock of 89.596 (100 - 10.404). It follows that the stake of cash flow and voting rights is actually 68.11% ( $61.023/89.596$ ).

Panel C reports ownership data for all firms in the sample (Panel C1) and for the sub-sample of family-controlled companies (Panel C2). As previously documented (Barca and Becht, 2001; Faccio and Lang, 2002; Barontini and Caprio, 2006), control is highly concentrated. On average, the ultimate shareholders are able to keep the majority of voting rights and their average stake is remarkably stable over time. On the opposite, cash flow rights are quite variable: starting from an average 45% level in 1978, they decrease to 38% in

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<sup>6</sup> “Preferred” shares (azioni privilegiate) are considered part of the equity capital. They are entitled to an additional dividend (and have prior claims in case of liquidation), but have voting rights only in “extraordinary” shareholders’ meetings, i.e. on modifications of the company by-laws. The possibility to issue non voting shares (which are entitled to dividend rights similar to preferred shares) was introduced (only for listed companies) in 1974. Preferred and/or non voting shares may not exceed 50% of the company capital.

<sup>7</sup> According to Italian law, treasury stocks (including those held by subsidiaries) may not exceed 10% of company capital. Shares exceeding such limit must be sold within one year or cancelled.

1988 and then gradually increase to 49% in 2003. These data signal the use of control-enhancing mechanisms, as can be gauged from the O/C ratio.

The recourse to devices to separate ownership from control has been rather frequent, and is a long-lasting feature of the Italian financial market. This happens also because – once introduced – they are quite difficult (and costly) to dismantle. However, the intensity of their use differs across firms and has not been stable over time: the discrepancy between cash flow and voting rights peaked in 1988. Though the use of control-enhancing mechanisms was more severe in family firms, it was not unique to them: State-owned and even foreign-controlled companies were no exception in this regard. Family firms made a more intense use of these devices (they had a lower O/C ratio) in the past decades. In recent years the difference has gradually disappeared. Two reasons account for this fact: a) new IPOs make less use of these mechanisms; b) a number of companies converted non-voting shares into voting ones and/or eliminated one or more layers in pyramidal groups. Indeed, the median O/C ratio was below 1 only in 1988: this means that in 1978, 1998 and 2003, the majority of listed firms made no use of devices to secure voting rights in excess of cash flow rights.

Insert Table 1 about here

### 2.3. *Pyramidal groups*

Many firms are organized as business groups and some take the form of pyramidal groups. Pyramids allow the owner at the top of the pyramid to control firms along the control chain by investing proportionally less. Such groups offer more possibilities to controlling shareholders to expropriate resources at the expense of minority shareholders. We follow Volpin (2002) and classify companies into four categories: i) horizontal groups and stand alone: includes firms that belong to horizontal groups and independent firms, that is firms for which there does not exist another firm of the same group already listed; ii) pyramid level 1: includes companies that are at the top of the control chain, that are not controlled by any other listed company and control one or more listed companies; iii) pyramid level 2: includes all companies that are directly controlled by a company classified as pyramid level 1<sup>8</sup>; iv) pyramid level 3: firms that are at level 3 or higher in the control chain and are controlled, directly or indirectly, by a firm classified as level 2.

As shown in Table 1, Panel D, firms that belong to a pyramidal group account for more than 50% of all listed companies in 1978 and in 1988, they reduce to 38% in 1998 and they further decrease to 25% in 2003.

Not only has the incidence of pyramidal groups changed over the years, but also their complexity has varied significantly. Figure 1 gives an example of the evolution of the pyramidal group controlled by the Agnelli family. In 1978, the group counted 8 listed firms. In 1988, the Agnelli family had a control stake in 27 listed companies (15% of all listed firms

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<sup>8</sup> As an example consider the group controlled by the Benetton family in 2003. Autogrill and Benetton are controlled by the Benetton family through separate control chains. Consequently, the two companies are both classified as belonging to a horizontal group. Autostrade is controlled by the Benetton family through a different control chain and holds a majority stake in Autostrade Meridionali. Therefore, we classify Autostrade as a pyramid Level 1 and Autostrade Meridionali as a pyramid Level 2.



in the sample) with interests ranging from cars to retail distribution to insurance. In 2003, after the restructuring, the pyramidal group was reduced to 4 listed companies.

Insert Figure 1 about here

Overall, the (recent) history of corporate ownership in Italy reveals that the ownership structure has evolved over the years as well as profound changes have occurred in the composition of the stock exchange. In 1978 and – particularly – in 1988 the stock exchange is largely dominated by pyramidal groups that bring to extreme the separation of ownership from control. Indeed, during the second half of the ‘80s, one IPO out of two consists of a business-group affiliated firm (Rigamonti, 2007). The identity of the ultimate shareholder is of scarce relevance: non voting shares and equity carve-outs are used extensively to raise new funds, while keeping a strong hold on voting rights. From the second half of the ‘90s, pyramidal groups are greatly reduced. Two reasons are accountable for this phenomenon. First, the new listings of business-group affiliated firms come to an end. New IPOs mainly consist of independent (i.e. not belonging to pyramidal groups), mostly small and medium size industrial firms (Rigamonti, 2007). Second, existing pyramidal groups undertake restructurings aiming at simplifying their control chain<sup>9</sup>.

#### 2.4. Board structure

In the U.S. and U.K. boards, it is always possible to identify the top manager holding the position of chief executive officer (CEO). In Italy the situation is not always so clear. This is partly related to differences in transparency, but it is mostly due to a different allocation of delegated powers, such that no direct equivalent of the U.S. CEO can be easily identified. Consequently, there is no straight correspondence between *Amministratore Delegato* (AD) and CEO. In some companies no *Amministratore Delegato* is explicitly identified. This might happen because the board may have delegated powers to several executives, or to a general manager, who might not even sit on the Board.

We first distinguish among executive directors and non-executive directors. Executives include *Presidente* (Chairman), *Vice-Presidente* (Vice-Chairman) and *Amministratore Delegato* (one or more) and the general manager if he sits on the board.

To investigate the issue of CEO duality, we claim that the positions of CEO and Chairman are combined when: i) the *Presidente* is also identified as *Amministratore Delegato* (regardless of the existence of other ADs)<sup>10</sup>; ii) there is a *Presidente* and there are no ADs<sup>11</sup>.

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<sup>9</sup> For example, in 2001 the Pirelli group (controlled by the Tronchetti Provera family) acquired a relative majority stake in the Telecom Italia group. This gave rise to a pyramidal group made up of 7 layers (Tronchetti Provera family – Camfin – Pirelli & C – Pirelli Spa – Olimpia (unlisted) – Olivetti – Telecom Italia – TIM). The layers were subsequently reduced to 4 through multiple mergers (Pirelli Spa into Pirelli & C, TIM into Telecom and Telecom into Olivetti).

<sup>10</sup> An example is Tiscali in 2003. Renato Soru, the controlling shareholder, was Chairman of the board and was also declared AD, and no other ADs were present. Another example is Marcolin in 2003. Giovanni Marcolin, a member of the controlling family, was Chairman of the board and was also declared AD. There were three more ADs: Maurizio and Cirillo Marcolin (also members of the controlling family) and a professional manager (Antonio Bortuzzo). We claim that the two positions are combined and identify Giovanni Marcolin as Chairman-CEO.

On the reverse, when the *Presidente* is not clearly identified as AD and there are one or more ADs, we claim that the roles of Chairman and CEO are not held by the same person<sup>12</sup>.

Insert Table 2 about here

Table 2, Panel A presents board size and composition of all sample firms. The average number of board members is 9. Executives represent 30% of all directors. The positions of Chairman and CEO are held by the same person in approximately 25% of the companies (and are slightly increasing over time). However, contrary to ownership data, board size and composition do not exhibit a clear changing pattern, but turn out to be remarkably stable over the whole period.

### 2.5. *Boards in family firms*

When a family is the dominant shareholder, corporate control can be enhanced through the appointment of a large fraction of board members and by directly taking executive positions.

Using information from IPO prospectuses and Il Sole 24 Ore, we are able, for all years, to identify family ties between board members and the controlling family. Hence board members in family firms can be partitioned into four categories: a) family executives (executive directors that belong to the controlling family); b) professional managers (non-family executives); c) non-executive family directors (family members who do not hold executive positions) and d) “independent” directors (directors that are neither family members nor executives). Family chairman is a dummy that takes the value of 1 when the Chairman is a member of the controlling family and zero otherwise.

Table 2, Panel B reports that family members on average comprise 21% of board members in 1978 and 1998, while their incidence grows to approximately 30% in 1998 and 2003. A similar pattern occurs for family executives (on average, they account for 12% of board positions in 1978 and 1988, and around 19% of such positions in 1998 and 2003). The proportion of companies whose Chairman is a family member is clearly increasing from 48% in 1978 to 75% in 2003. Italian families exert a more stringent control over the board of directors when compared, for example, with U.S. firms. Amit and Villalonga (2007) report that the fraction of family members on the board averages 17% and family representation reaches 41% among executives directors (compared to 60% of Italian firms). Apparently the Italian family grip on the board has become stronger over the years: this is due, at least in part, to the wave of small and medium size IPOs of the ‘90s.

## 3. Determinants of board size, board composition and board leadership

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<sup>11</sup> It is the case of Snam Rete Gas in 2003, that had a Chairman (Salvatore Russo) but no AD was explicitly identified. We interpret such situation as the presence of a Chairman-CEO.

<sup>12</sup> An example is Merloni in 2003. Vittorio Merloni (the controlling shareholder) was Chairman and Andrea Guerra (a professional manager) was AD. Another example is Targetti in 2003. Giampaolo Targetti (member of the controlling family) was Chairman, but was not declared as AD. Lorenzo Targetti (also a member of the controlling family) and Alvaro Andorlini (a professional manager) were declared as ADs. Hence we claim that there is a separation of the role of Chairman from CEO.

### 3.1. All listed firms

We examine the relation between firm characteristics (including ownership variables) and board structure. In Table 3 we investigate the determinants of board size (Panel A), board composition (Panel B) and board leadership (Panel C). We measure board size by the number of directors that sit on the board, board composition is the proportion of non-executive directors, while board leadership is a dummy variable that takes the value of 1 when the positions of Chairman-CEO are held by the same person and 0 otherwise.

We control for firm characteristics, i.e. for size, age and leverage. *D\_family* is a dummy variable for family control, that takes the value of 1 when the ultimate shareholder is a family and 0 otherwise. *D\_New Market* is a dummy that takes the value of 1 when the company is listed on the Nuovo Mercato<sup>13</sup> (only in 2003). We present the results of three different regression specifications that use cash flow rights, the O/C ratio and pyramidal group dummies, respectively, as ownership variables.

Insert Table 3 about here

Consistent with earlier results (Lehn, Patro and Zhao, 2003; Boone et al., 2004; Coles, Daniel and Naveen, 2008; Linck, Netter and Yang, 2007), we find that board size is positively related to firm size (Table 3, Panel A). Hence large firms tend to have larger boards. We also find a significant negative relation between board size and the dummy for family control in 1978 and 1988. The evidence is explained by the large presence, in the past, of state-owned companies whose board size was disproportionately large compared to family firms (data, not reported in the table, reveal that, in 1978, the average board size was 13 for state-owned companies and 8 for family-controlled, and the difference is statistically significant at the 1% level; similar results occur for 1988). Starting from the early '90s, the vast program of privatizations has led to a reduction in the number of listed companies controlled by the State and in a parallel downsizing of their board. The coefficient for cash flow rights is significantly negative in 1998 and 2003, suggesting that – in recent years – board size is smaller in firms whose ultimate shareholder bears a larger portion of board costs and has a greater incentive to maximize firm value<sup>14</sup>.

Panel B reveals that the proportion of outside directors sitting on firms' board does not vary with firm characteristics<sup>15</sup>. However we detect a negative relation between board composition and the dummy for family control (statistically significant in 1998 and 2003). Hence controlling families tend to appoint a lower fraction of outside directors. The proportion of non-executive directors is also positively related to board size. Therefore the growth in board size is likely to reflect an increase in the number of outside directors. Also, we find that the incidence of outside directors increases when the CEO of the firm is also the

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<sup>13</sup> The Nuovo Mercato was launched in 1999 by Borsa Italiana with the aim of facilitating the listing of high tech and high growth companies by imposing less stringent listing requirements to the companies going public.

<sup>14</sup> We also find that board size is negatively related to the O/C ratio (with statistical significance in 2003). Hence firms with low separation of ownership from control (i.e. with O/C ratio close to 1), tend to have a smaller board size.

<sup>15</sup> However, in recent years, we detect a positive relation between the proportion of outside directors and the size of the company, which is statistically significant only in 2003. So large firms tend to have a large portion of non-executive directors.

Chairman. That appears to be consistent with the view expressed by Raheja (2005) and supported empirically by Linck, Netter and Yang (2007), that outsiders increase as the CEO's influence increases as they are required to counterbalance the powers of the Chairman-CEO.

The likelihood of having a combined leadership structure (Table 3, Panel C) is not related to firm's characteristics. We only find a positive relation (statistically significant only in 1988 and 1998) between board leadership (combined Chairman-CEO) and the O/C ratio. Hence CEO duality is more likely to occur in firms with little or no separation of cash flow from voting rights.

Overall our models explain from 27% to 54% of variation both in board size and composition, while they have negligible explanatory power on board leadership. This implies that firm and ownership characteristics account for a significant portion of differences in board structure.

### 3.2. *Family firms*

Given the peculiarities of families as controlling shareholders, we further investigate the determinants of family firm boards. The results are presented in Table 4.

Insert Table 4 about here

We first explore how the controlling family influences the composition of the board by appointing family members. Table 4, Panel A shows that the proportion of family members on the board is positively related to both measures of ownership structure, i.e. cash flow rights and ownership-to-control ratio (the coefficients are statistically significant in every year). Hence whenever families hold a large stake of cash flow rights or do not separate (or separate moderately) cash flow from voting rights, they are more likely to appoint a high proportion of their members to the board.

In pyramidal groups, the presence of family members is significantly reduced at the lower levels of the control chain. That is consistent with our previous results as companies at level 2 and 3 have, by definition, a higher discrepancy between cash flow and voting rights. Our findings indicates that family members tend to be in higher proportions in stand alone firms as well as in horizontal groups and their incidence is not different on average in firms at the top of the control chain. Families tend to concentrate their grip on control in boards that are entitled to more strategic decisions (firms at the lower levels of the control chain are typically more operative). Besides, the number of family members may impose, per se, a limit to the number of positions held. A clear example is given by the Agnelli group in 1988 (see Figure 1). The controlling family, albeit large, could not reasonably hold the same number of positions in all the 27 listed companies of the group. The strategy chosen was clearly to concentrate control through board positions in the upper levels of the pyramid, and to rely on non-family members in companies along the control chain.

The incidence of family directors is also negatively related to the size of the board and positively related to whether the Chairman of the board comes from the controlling family. So when the family is the largest shareholder and also exerts a great influence over the board by

taking the position of Chairman, her power tends to be reinforced also through the appointment of other family representatives to board positions.

We further investigate the determinants of a family member as Chairman of the board. Panel B of Table 4 shows that when controlling families hold large cash flow stakes or make little or no use of control-enhancing mechanisms, they are more likely to appoint a family member as Chairman of the board. Consistently, the Chairman is less likely to be a family representative in firms that belong to the lower levels of the control chain.

If controlling families exert a greater power over the board by taking the position of Chairman and by appointing family members, that could suggest that families tend to be more entrenched. If this holds true, we would also expect a lower incidence of outside directors, either because the controlling family does not need them as it can effectively monitor managers or because the family does not want its power to be curbed. We analyze this issue by exploring what drives the proportion of “independent” directors (that is directors that are neither family members nor executives) on family firms’ boards.

Contrary to expectations, the results in Table 4, Panel C reveal that the proportion of independent directors in family firms is positively related to both the cash flow rights held by the controlling family and the O/C ratio. Independent directors tend to increase when the controlling family has greater incentives to maximize firm value (because of either higher cash flows or lower divergence between cash flow and voting rights). That appears to be inconsistent with a “monitoring” theory of board composition that would require more independent directors whenever conflicts of interest are pronounced, in order to control for expropriation from the controlling family. On the opposite, it appears more in line with a signaling story: controlling families whose interests are more aligned with those of the market, may appoint a larger proportion of independent directors, in order to credibly commit not to expropriate small investors.

Interestingly, if controlling families holding large cash flow stakes tend to have more family members on the board and more independent directors, this implies that these increases take place at the expense of “professional managers”, i.e. non-family executives.

#### **4. Effects of ownership and board structure on firm value**

##### *4.1. All listed firms*

In this section, we examine if ownership and board structure have an impact on firm value. We measure firm value by Tobin’s Q. We run two different regression specifications. In Specification 1, we control for firm characteristics and ownership variables. In Specification 2, we include firm attributes, ownership and board variables. Then in Panel A, we use cash flow rights as ownership measure, in Panel B we use the ownership-to-control ratio, and in Panel C we account for pyramidal groups.

Insert Table 5 about here

Our evidence shows that there exists a negative relation between firm’s Q and firm size. The coefficient is statistically significant in 1978 and 1988 only. The market also places a

discount on levered firms (also in this case statistically significant only in 1998 and 2003). Hence larger and more levered firms tend to be valued less.

In line with previous literature, we find no clear, significant relation between ownership, board variables and firm valuation. Specifically, cash flow rights are positively related to firm value, but they are statistically significant only in 1998. Tobin's Q tends to increase with board size, but the relation is significant only in 2003. Even an increase in outside directors does not lead to a higher market valuation of the firm. Finally, market valuation seems to be rather insensitive to board leadership: firms with combined Chairman-CEO positions seemingly trade at a discount only in recent years, and the regression coefficient is not statistically significant.

In Panel C, we find that the market places a discount on firms that belong to pyramidal groups. The results are statistically significant in 1998 and 2003. So in recent years the market does not like pyramidal groups anymore. The possibility of expropriation of minority shareholders offered by pyramidal groups is negatively reflected into stock prices. Interestingly, the discount is present at all levels of the pyramid: the market seems to penalize holding companies as well as subsidiaries.

Comparing the results under both specifications, it can be easily gauged that board structure variables add little, if any, explanatory power to the regressions. Therefore, firm valuation appears to be unaffected by board structure.

#### 4.2. *Family firms*

Our previous results have shown that when families have high incentives to maximize firm value (i.e. large cash flow rights or high O/C ratio), they are more likely to appoint a family member as Chairman and also to have a high proportion of family directors. We repeat our previous analysis on firm valuation on the sub-sample of family firms. In particular, we investigate if the market places a discount on the market value of family firms whenever families appear to be more entrenched through a stronger control of the board. The results are provided in Table 6, where we perform an analysis of the relation between ownership, board structure and firm value. In Panel A, we use cash flow rights as our measure of ownership structure, in Panel B we perform our analysis using the O/C ratio and in Panel C we use pyramidal group dummies.

Insert Table 6 about here

In line with our previous findings, we detect a negative relation between firm size and firm value (the coefficients are statistically significant in 1978 and 1988). Firm value is, however, positively related to board size (though the coefficient is statistically significant only in 1988 and 2003). There is no relation between firm valuation and the proportion of family members on the board. There is also no significant relation between firm value and board leadership (in particular, with the presence of a family chairman). Also the proportion of independent directors on the board does not affect value.

Overall our findings suggest that when control lies in the hands of families, families also exert a great influence over the board by directly taking the position of Chairman and by

appointing other family members as directors. That is more likely to occur when the cash flow rights held by the controlling family are high and when there is little or no separation between cash flow and voting rights. So when incentives to maximize firm value are high, the market does not place a discount on value because of family control and family-controlled boards.

However, as shown for the whole sample, the market places a discount on firms that belong to pyramidal groups. The evidence is statistically significant in recent years. So, over the last decade, firms belonging to pyramidal groups – regardless of their ultimate shareholder – are valued less by market. The choice of a particular board structure, however, does not seem to affect firm valuation. Hence our analysis indicates that no board structure fits all companies and it is, therefore, quite difficult, to create value by simply “shaping” the board.

## **5. Conclusions**

We provide evidence about the ownership and board structure of Italian listed companies in selected years (1978, 1988, 1998 and 2003). Board structure is analyzed in terms of board size, composition and leadership and, as far as family firms are concerned, in terms of the number and role of members of the controlling family serving on the board and also of the proportion of independent directors.

Our analysis indicates that ownership structure of Italian listed firms has changed significantly over time. In particular, the percentage of family firms has increased, while state-owned and foreign-owned firms have diminished over time. Furthermore, the separation of ownership from control rights has sharply increased in the ‘80s (due to the widespread use of control-enhancing mechanisms), and has subsequently sharply declined in the ‘90s. That is due both to the dismantling of pyramids and dual-class shares unifications and to a wave of IPOs of firms which did not make use of such devices (Rigamonti, 2007). While cash flow rights held by the controlling shareholder varied widely, the average voting rights remained extremely stable at a level slightly above 50%.

On the other side, average board size and composition turn out to be substantially stable over time. They are, however, remarkably variable across firms: in particular board size is larger in larger firms and when the controlling shareholder holds smaller cash-flow rights. That may be consistent with the need to include representatives of other relevant shareholders in the board. It is also important to remark that, in remote years (1978 and 1988), state-owned firms had a much larger board. The proportion of non-executive directors on the board is positively related to board size (but not to firm size), and to the presence of a Chairman-CEO, while it is negatively related to family ownership. Finally, a Chairman-CEO is more likely when there is less separation of ownership from control.

Ownership structure seems to have a particularly strong relationship with board structure in family firms. In particular, when the controlling family holds a large stake of cash flow rights (and makes less or no recourse to control-enhancing mechanisms), the proportion of board seats held by family members is higher and a family Chairman is more likely; however, the proportion of seats held by independent directors is also higher. The increase in the proportion of both family members and independent directors, substantially, takes place at the expense of non-family executives, which are less frequent when cash flow rights held by the family are

higher. Our data also reveal that ownership and board structure in a country with concentrated ownership are strictly interdependent.

Overall our findings suggest the families investing strongly in their companies tend to be active in the board and to hold executive positions. However, they also seem to include independent directors. That appears to be consistent with a commitment hypothesis, rather than with an entrenchment story. Besides, family representatives are less frequent in companies positioned in the lower levels of pyramidal groups. When the recourse to pyramiding is quite strong, it might be difficult for family members active in the business to sit in all listed companies of the group (particularly in those at the lower levels of the pyramid).

As in previous literature, our data do not allow us to identify an unambiguous relationship between ownership and corporate governance structures (in particular board structure), on one hand, and firm valuation (measured in terms of Tobin's Q), on the other. Actually, the valuation of Italian firms is higher when the cash flow rights held by the controlling shareholders are higher (and the separation of ownership from control is smaller); however, the results are statistically weak. More interestingly, in recent years, firms belonging to pyramidal groups (no matter their level in the group and no matter their ultimate shareholder) are valued at a discount in comparison to stand-alone firms and horizontal groups. While firm valuation seems to be related to firm characteristics (including ownership structure), we do not detect any significant impact of board structure on firm valuation.

Overall, our study shows that board structure is strongly related to ownership variables and firm characteristics. That contrasts with the conventional wisdom that small, more independent boards, with a separation of the roles of Chairman and CEO are strictly preferable. Actually, our paper casts doubts on the effectiveness of requirements that impose a specific board structures, as there does not exist a structure that fits all companies at all times.



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## Appendix A. Definition of variables

<i>Variable name</i>	<i>Definition</i>
Size	Logarithm of book value of total assets
Age	Number of years since company's foundation
Leverage	Debt to equity ratio
Tobin's Q	Book value of total assets – Book value of shareholders' equity + Market value of shareholders' equity divided by Book value of total assets.
D_Family	Dummy variable that takes the value of 1 when the controlling shareholder is a family
D_New Market	Dummy variable that takes the value of 1 when the firm has been listed on the Nuovo Mercato
Cash flow rights	Fraction of the firm's equity (voting and non voting shares) owned by the ultimate shareholder
Voting rights	Fraction of the shares with voting rights of a company controlled by its ultimate owner
O/C	Ratio between cash flow and voting rights. If the O/C <1, then there is divergence between cash flow and voting rights
Pyramid level 1	In pyramidal groups, dummy variable that takes the value of 1 if the firm belongs to a pyramidal group and is not controlled by any other traded company
Pyramid level 2	In pyramidal groups, dummy variable that takes the value of 1 if the firm is directly controlled by a "Pyramid level 1" company
Pyramid level 3	In pyramidal groups, dummy variable that takes the value of 1 if the firm is directly or indirectly controlled by a "Pyramid level 2" company
Board size	Number of board members
% of executives	Proportion of board members that are executives
Chairman/CEO	Dummy variable that takes the value of 1 when the positions of Chairman and CEO are held by the same person
Family members	In family firms, the proportion of board members that belong to the controlling family
Family executives	In family firms, the proportion of board members that belong to the controlling family and are executives
Independent directors	In family firms, the proportion of board members that are non-family members and non-executive directors
Family chairman	In family firms, dummy variable that takes the value of 1 when the Chairman of the firm belongs to the controlling family

**Table 1. Descriptive statistics**

Panel A shows the number of listed companies in each of the selected year, the mean and median of firm characteristics. Panel B reports the distribution of ultimate shareholder types. *Family* is a company that is either controlled by a family, a family coalition or an individual. *State* stands for a state-controlled company, i.e a company controlled by the national government, a local authority, or a government agency. *Foreign company* is a company controlled by a foreign company or a foreign financial institution. *Widely held* is when no shareholder exceeds the 10% threshold of voting rights or when the company is controlled by a widely-held company or by a widely-held financial institution. *Other* includes residual entities. Panel C1 shows mean and median cash flow rights, voting rights and O/C ratio for all firms in the sample Panel C2 shows mean and median cash flow rights, voting rights and O/C ratio for the sub-sample of family-controlled firms. Panel D1 reports the distribution and Tobin's Q of pyramidal groups for all firms in the sample. Panel D2 reports the distribution and Tobin's Q of pyramidal groups for the sub-sample of family-controlled firms. *Horizontal groups and stand alone* includes firms that belong to horizontal groups and independent firms, that is firms for which there does not exist another firm of the same group already listed. *Pyramid level 1* includes companies that are at the top of the control chain, that are not controlled by any other listed company and control one or more listed companies. *Pyramid level 2* includes all companies that are directly controlled by a company classified as pyramid level 1. *Pyramid level 3* includes firms that are at level 3 or higher in the control chain and are controlled, directly or indirectly, by a firm classified as level 2.

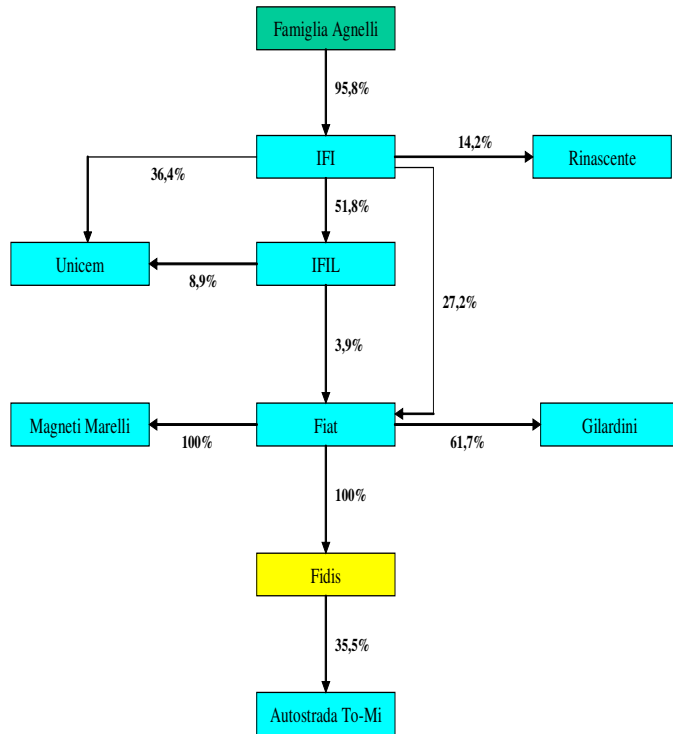
	1978	1988	1998	2003
<b>Panel A. Firm characteristics</b>				
Number of listed companies	153	183	171	215
Age				
mean	67	55	58	49
median	71	55	51.5	34.5
Size (in millions of 2003 Euros)				
mean	541.3	1319.1	897.8	1665.2
median	81.0	177.0	112.4	197.2
Leverage				
mean	2.2	0.8	0.9	1.0
median	0.8	0.5	0.5	0.5
<b>Panel B. Type of ultimate shareholder</b>				
Family	61.4	74.9	71.9	74.9
State	17.6	12.0	9.4	8.8
Foreign company	10.5	9.3	4.1	3.3
Widely held	5.9	3.8	9.9	7.0
Other	4.6	0.0	4.7	6.0
Total	100	100	100	100
<b>Panel C. Ownership structure</b>				
<i>C1. All firms</i>				
Cash flow rights				
mean	45.0	38.5	43.8	48.6
median	43.3	40.9	50.1	53.0
Voting rights				
mean	53.3	54.1	50.3	53.2
median	51.8	52.6	51.8	56.1
O/C				
mean	0.81	0.67	0.84	0.89
median	1	0.77	1	1
<i>C2. Family firms</i>				
Cash flow rights				
mean	37.9	32.4	45.3	49.1
median	35.4	32.2	51.2	53.9
Voting rights				

mean	47.3	50.4	52.3	53.9
median	45.1	49.5	53.0	56.7
<i>O/C</i>				
mean	0.76	0.60	0.83	0.89
median	1	0.68	1	1
<b>Panel D. Pyramidal groups</b>				
<i>D1. All firms</i>				
Horizontal groups and stand alone	49.7	49.2	62.0	75.3
Pyramid level 1	15.0	12.0	12.3	8.8
Pyramid level 2	25.5	16.9	19.3	10.7
Pyramid level 3	9.8	21.9	6.4	5.1
Total	100.0	100.0	100.0	100.0
<i>Tobin's Q</i>				
Horizontal groups and stand alone	1.17	1.49	1.77	1.49
Pyramid level 1	0.96	1.25	1.35	1.13
Pyramid level 2	1.08	1.32	1.37	1.13
Pyramid level 3	0.97	1.26	1.25	2.10
<i>D2. Family firms</i>				
Horizontal groups and stand alone	46.8	43.8	64.2	73.3
Pyramid level 1	17.0	10.9	13.0	9.9
Pyramid level 2	24.5	16.1	17.1	10.6
Pyramid level 3	11.7	29.2	5.7	6.2
Total	100.0	100.0	100.0	100.0
<i>Tobin's Q</i>				
Horizontal groups and stand alone	1.16	1.40	1.77	1.52
Pyramid level 1	1.06	1.24	1.14	1.09
Pyramid level 2	1.13	1.24	1.22	1.05
Pyramid level 3	0.95	1.26	1.30	2.11

**Figure 1. The Agnelli group across the years**

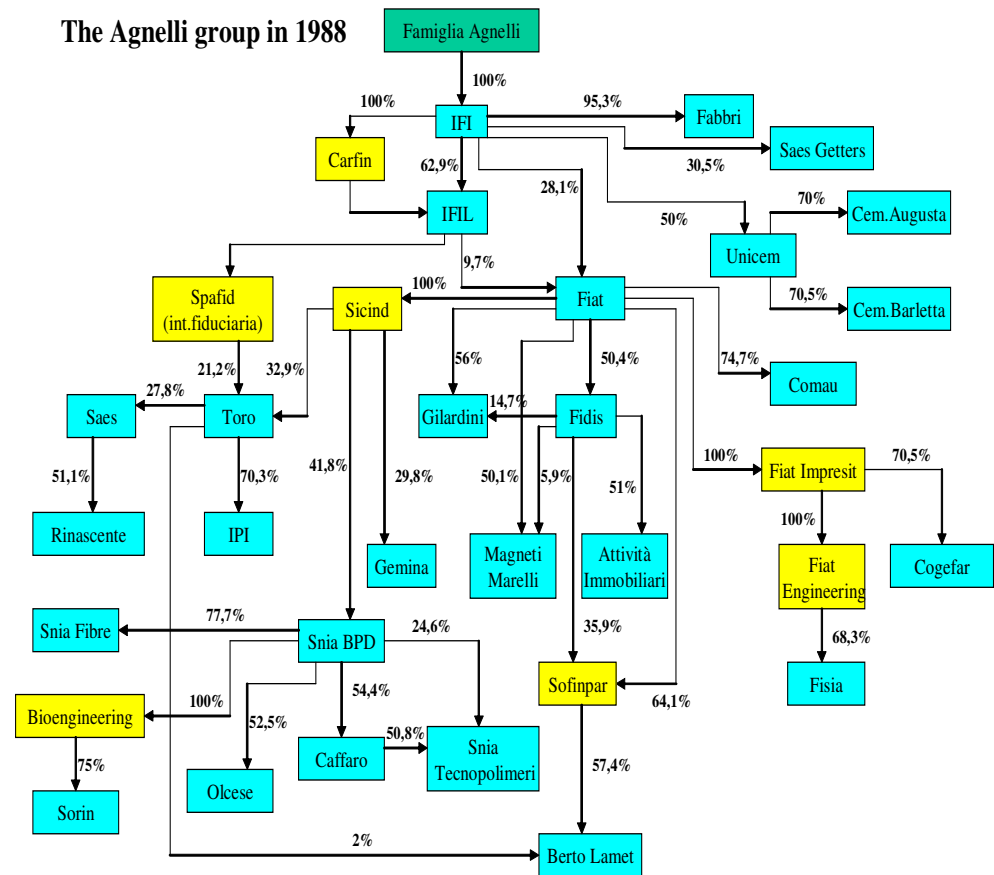
The figure shows the structure of the pyramidal group controlled by the Agnelli family in 1978, 1988, 1998 and 2003. The table reports the voting rights directly held by the controlling party (company or individual). Unlisted firms are in yellow.

The Agnelli group in 1978



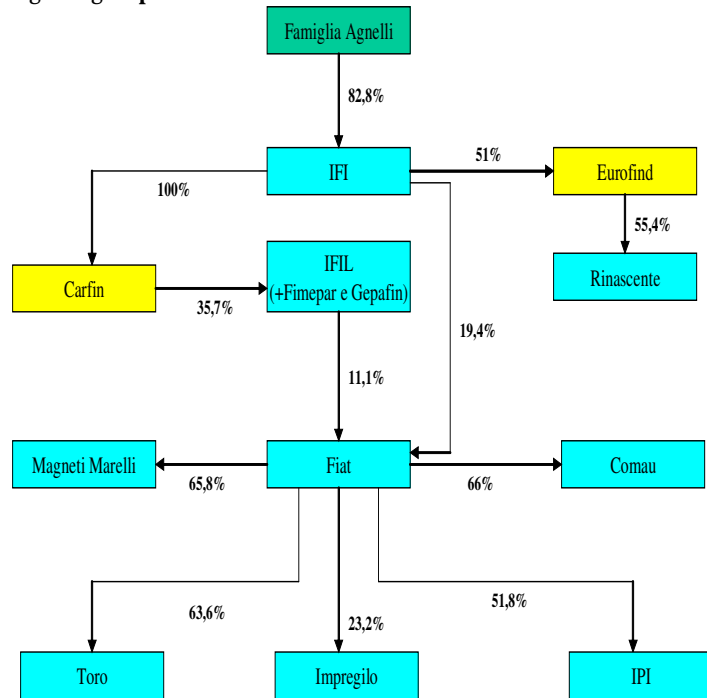
% of voting rights (unlisted firms are in yellow)

The Agnelli group in 1988



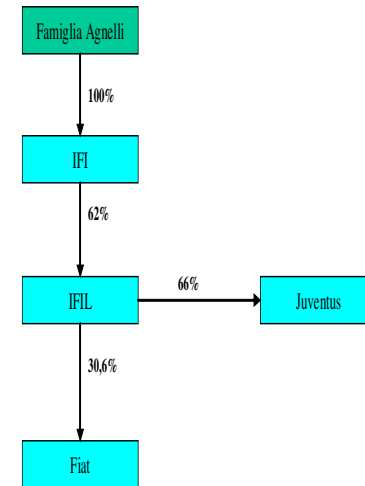
% of voting rights (unlisted firms are in yellow)

The Agnelli group in 1998



% of voting rights (unlisted firms are in yellow)

The Agnelli group in 2003



% of voting rights

**Table 2. Board structure**

Panel A reports, for all firms in the sample, the mean and median board size (i.e. the number of directors that seat on the board), the mean and median proportion of executive directors, the proportion of companies in which the titles of Chairman and CEO are held by the same person. Panel B reports the mean and median values of the proportion of family members, family executives and independent directors in the board. Independent directors are directors that are neither family members nor executives. The table also report the proportion of companies whose Chairman belongs to the controlling family.

	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
<b>Panel A. All firms</b>				
Board size (no. of board members)				
Mean	9.4	9.7	8.4	9.0
Median	9.0	9.0	8.0	9.0
Board composition (% of executives)				
Mean	33.3	30.2	32.9	30.5
Median	30.0	28.6	30.0	28.6
% of companies with Chairman/CEO	23.5	21.9	25.7	27.9
<b>Panel B. Family firms</b>				
% of family members				
Mean	21.0	21.3	33.3	28.8
Median	17.4	16.7	28.6	25.0
% of family executives				
Mean	12.6	12.2	19.0	18.2
Median	11.8	10.0	16.7	14.3
% of independent directors				
Mean	8.4	9.2	14.3	10.6
Median	0.0	0.0	11.1	9.1
% of family firms with family chairman	47.9	54.0	66.7	74.5



**Table 3. Determinants of board structure**

The table reports the results of cross-sectional regressions. Panel A shows the results of OLS regression whose dependent variable is the *board size* measured by the number of directors that seat on the board. In Panel B the dependent variable of the OLS regression is the *board composition* measured by the proportion of non-executives directors. Panel C shows the results of logistic regression where the dependent variable is *board leadership* measured by a dummy variable that takes the value of 1 when the titles of Chairman and CEO are held by the same person and 0 otherwise. *Size* is the natural logarithm of book value of total assets. *Age* is the number of years since company's foundation. *Leverage* is the debt to equity ratio. *D\_family* is a dummy variable that takes the value of 1 when the ultimate shareholder is a family and 0 otherwise. *CF rights* is the fraction of firm's equity owned by the ultimate shareholder. *O/C* is the ratio between cash flow and voting rights. *Pyramid level 1* is a dummy variable that takes the value of 1 when the company belongs to a pyramidal group and is not controlled by any other traded company. *Pyramid level 2* is a dummy variable that takes the value of 1 when the company is directly controlled by a pyramid level 1 company. *Pyramid level 3* is a dummy variable that takes the value of 1 when the firm is directly or indirectly controlled by a pyramid level 2 company. *D\_Chairman/CEO* is a dummy variable that takes the value of 1 when the positions of Chairman and CEO are held by the same person. *D\_New Market* is a dummy that takes the value of 1 when the firm is listed on the Nuovo Mercato. p-values from heteroskedasticity consistent standard errors appear in parentheses.

**Panel A. Board size**

	<i>Model 1</i>				<i>Model 2</i>				<i>Model 3</i>			
	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
Size	1.56 (0.00)	1.33 (0.00)	0.90 (0.00)	0.68 (0.00)	1.56 (0.00)	1.35 (0.00)	0.91 (0.00)	0.71 (0.00)	1.44 (0.00)	1.46 (0.00)	1.08 (0.00)	0.69 (0.00)
Age	0.00 (0.92)	0.02 (0.01)	0.00 (0.60)	0.00 (0.53)	0.00 (0.98)	0.02 (0.03)	0.00 (0.67)	0.00 (0.54)	0.00 (0.85)	0.02 (0.01)	0.01 (0.43)	0.00 (0.72)
Leverage	-0.10 (0.01)	-0.43 (0.00)	-0.09 (0.44)	0.02 (0.44)	-0.10 (0.02)	-0.43 (0.00)	-0.09 (0.46)	0.02 (0.48)	-0.11 (0.01)	-0.47 (0.00)	-0.10 (0.38)	-0.01 (0.66)
D_family	-1.51 (0.00)	-0.92 (0.07)	0.41 (0.43)	0.60 (0.18)	-1.36 (0.01)	-0.89 (0.08)	0.26 (0.62)	0.44 (0.34)	-1.70 (0.00)	-0.68 (0.16)	0.38 (0.46)	0.32 (0.49)
CF rights	-0.01 (0.38)	0.00 (0.65)	-0.02 (0.08)	-0.04 (0.00)								
O/C					0.03 (0.97)	0.47 (0.44)	-1.36 (0.20)	-2.39 (0.01)				
Pyramid level 1									1.39 (0.08)	-0.92 (0.28)	-0.62 (0.50)	0.06 (0.94)
Pyramid level 2									0.50 (0.40)	-0.65 (0.21)	-0.44 (0.42)	0.80 (0.30)
Pyramid level 3									-0.14 (0.81)	-1.30 (0.02)	-0.60 (0.65)	3.03 (0.00)

D_Chairman/CEO	0.06	-1.16	-0.29	-0.46	0.08	-1.19	-0.27	-0.59	0.05	-1.14	-0.40	-0.33
	(0.90)	(0.02)	(0.57)	(0.27)	(0.88)	(0.01)	(0.59)	(0.18)	(0.92)	(0.01)	(0.43)	(0.46)
D_New Market				-0.77				-0.45				-0.54
				(0.18)				(0.42)				(0.35)
Intercept	-5.14	-6.69	-2.46	2.20	-5.74	-7.05	-1.96	1.83	-4.36	-7.77	-5.26	0.16
	(0.00)	(0.00)	(0.24)	(0.32)	(0.00)	(0.00)	(0.44)	(0.45)	(0.01)	(0.00)	(0.02)	(0.94)
R <sup>2</sup>	0.54	0.43	0.28	0.29	0.54	0.43	0.28	0.26	0.54	0.44	0.29	0.27
No. of observations	151	182	169	204	151	182	169	204	153	182	170	207

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**Panel B. Board composition (% of non executives)**

	<i>Model 1</i>				<i>Model 2</i>				<i>Model 3</i>			
	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
Size	-0.46 (0.62)	-0.84 (0.26)	0.19 (0.73)	0.89 (0.05)	-0.45 (0.65)	-1.00 (0.24)	0.09 (0.87)	0.88 (0.06)	-0.33 (0.70)	-0.51 (0.49)	-0.18 (0.80)	0.76 (0.11)
Age	-0.04 (0.33)	-0.03 (0.32)	0.00 (0.92)	0.00 (0.96)	-0.04 (0.34)	-0.03 (0.32)	0.00 (0.97)	0.00 (0.95)	-0.04 (0.31)	-0.02 (0.37)	0.00 (0.97)	0.00 (0.99)
Leverage	0.14 (0.05)	0.24 (0.73)	-0.43 (0.27)	-0.18 (0.11)	0.14 (0.06)	0.28 (0.68)	-0.42 (0.27)	-0.18 (0.11)	0.13 (0.62)	0.09 (0.89)	-0.41 (0.24)	0.02 (0.79)
D_family	-0.98 (0.65)	-0.93 (0.59)	-5.84 (0.00)	-2.63 (0.08)	-0.84 (0.68)	-1.44 (0.41)	-5.88 (0.00)	-2.60 (0.08)	-0.94 (0.62)	-0.87 (0.61)	-5.57 (0.00)	-2.78 (0.07)
CF rights	0.00 (0.92)	-0.01 (0.79)	0.01 (0.72)	0.01 (0.83)								
O/C					0.40 (0.91)	-2.61 (0.32)	-0.97 (0.72)	0.18 (0.95)				
Pyramid level 1									0.42 (0.91)	-5.00 (0.18)	0.92 (0.77)	2.50 (0.24)
Pyramid level 2									-2.43 (0.31)	1.85 (0.36)	1.80 (0.38)	0.20 (0.94)
Pyramid level 3									-0.79 (0.81)	0.04 (0.99)	1.93 (0.44)	2.12 (0.44)
Board size	2.13 (0.00)	2.10 (0.00)	2.66 (0.00)	2.37 (0.00)	2.13 (0.00)	2.12 (0.00)	2.64 (0.00)	2.36 (0.00)	2.13 (0.00)	2.08 (0.00)	2.66 (0.00)	2.26 (0.00)
D_Chairman/CEO	12.88 (0.00)	13.41 (0.00)	10.90 (0.00)	13.96 (0.00)	12.89 (0.00)	13.66 (0.00)	11.03 (0.00)	13.99 (0.00)	12.99 (0.00)	13.87 (0.00)	11.13 (0.00)	13.78 (0.00)
D_New Market				2.94 (0.22)				2.87 (0.23)				3.29 (0.17)
Intercept	51.62 (0.00)	59.52 (0.00)	43.59 (0.00)	34.60 (0.00)	50.87 (0.00)	63.14 (0.00)	46.44 (0.00)	35.09 (0.00)	50.77 (0.00)	55.22 (0.00)	47.99 (0.00)	37.19 (0.00)
R <sup>2</sup>	0.40	0.39	0.49	0.48	0.40	0.39	0.49	0.48	0.41	0.41	0.49	0.48
No. of observations	151	182	169	204	151	182	169	204	153	182	170	207

**Panel C. Board leadership (Chairman/CEO)**

	<i>Model 1</i>				<i>Model 2</i>				<i>Model 3</i>			
	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
Size	-0.15 (0.26)	-0.18 (0.16)	-0.09 (0.45)	0.06 (0.58)	-0.15 (0.26)	-0.14 (0.26)	-0.06 (0.63)	0.04 (0.72)	-0.12 (0.38)	-0.26 (0.06)	-0.14 (0.30)	0.01 (0.95)
Age	0.00 (0.88)	-0.01 (0.33)	0.00 (0.91)	0.01 (0.14)	0.00 (0.84)	-0.01 (0.28)	0.00 (0.90)	0.01 (0.14)	0.00 (0.83)	-0.01 (0.23)	0.00 (0.81)	0.01 (0.26)
Leverage	0.00 (0.93)	-0.29 (0.18)	0.00 (0.99)	0.04 (0.52)	0.00 (0.94)	-0.31 (0.17)	-0.01 (0.95)	0.04 (0.51)	0.01 (0.80)	-0.24 (0.26)	0.00 (0.97)	0.05 (0.05)
D_family	-0.09 (0.84)	0.55 (0.30)	0.20 (0.63)	-0.32 (0.39)	-0.02 (0.96)	0.58 (0.22)	0.34 (0.42)	-0.28 (0.45)	0.11 (0.79)	0.36 (0.43)	0.20 (0.64)	-0.33 (0.37)
CF rights	0.00 (0.64)	0.01 (0.24)	0.01 (0.17)	0.01 (0.11)								
O/C					-0.03 (0.97)	1.08 (0.06)	1.86 (0.04)	0.65 (0.43)				
Pyramid level 1									-0.73 (0.34)	0.78 (0.22)	0.31 (0.64)	0.45 (0.44)
Pyramid level 2									0.13 (0.79)	-0.44 (0.49)	-0.44 (0.40)	-0.38 (0.44)
Pyramid level 3									-0.30 (0.66)	-0.13 (0.80)	-1.07 (0.33)	-0.99 (0.41)
D_New Market				0.37 (0.45)				0.26 (0.59)				0.33 (0.51)
Intercept	0.53 (0.74)	0.65 (0.73)	-0.58 (0.75)	-2.59 (0.11)	0.29 (0.86)	-0.18 (0.92)	-2.23 (0.25)	-2.26 (0.22)	-0.04 (0.98)	2.26 (0.21)	0.71 (0.70)	-1.14 (0.44)
Pseudo R <sup>2</sup>	0.01	0.05	0.02	0.02	0.01	0.06	0.04	0.02	0.02	0.06	0.03	0.03
No. of observations	151	182	169	204	151	182	169	204	153	182	170	207

**Table 4. Determinants of board structure in family firms**

The table reports the results of cross-sectional regressions. Panel A shows the results of OLS regression whose dependent variable is *family members* measured by the proportion of board members that belong to the controlling family. Panel B reports a logistic regression whose dependent variable the *family Chairman* that is a dummy variable that takes the value of 1 when the Chairman of the firm belong to the controlling family. Panel C shows the results of OLS regression where the dependent variable is *independent directors* measured by the proportion of board members that are non-family members and non-executive directors. *Size* is the natural logarithm of book value of total assets. *Age* is the number of years since company's foundation. *Leverage* is the debt to equity ratio. *CF rights* is the fraction of firm's equity owned by the ultimate shareholder. *O/C* is the ratio between cash flow and voting rights. *Pyramid level 1* is a dummy variable that takes the value of 1 when the company belongs to a pyramidal group and is not controlled by any other traded company. *Pyramid level 2* is a dummy variable that takes the value of 1 when the company is directly controlled by a pyramid level 1 company. *Pyramid level 3* is a dummy variable that takes the value of 1 when the firm is directly or indirectly controlled by a pyramid level 2 company. Board size is the number of directors that seat on the board. *D\_family chairman* is a dummy variable that takes the value of 1 when the Chairman of the firm belongs to the controlling family. *D\_New Market* is a dummy that takes the value of 1 when the firm is listed on the Nuovo Mercato. p-values from heteroskedasticity consistent standard errors appear in parentheses.

**Panel A. Family members**

	<i>Model 1</i>				<i>Model 2</i>				<i>Model 3</i>			
	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
Size	0.45 (0.73)	1.93 (0.04)	1.57 (0.18)	-0.29 (0.73)	0.39 (0.76)	2.08 (0.04)	1.53 (0.21)	-0.15 (0.88)	0.68 (0.57)	2.50 (0.02)	1.62 (0.20)	-0.62 (0.53)
Age	0.03 (0.70)	-0.03 (0.41)	-0.03 (0.55)	0.01 (0.83)	0.02 (0.81)	-0.05 (0.17)	-0.02 (0.67)	0.01 (0.79)	0.01 (0.89)	-0.06 (0.12)	-0.03 (0.52)	0.00 (0.93)
Leverage	-0.15 (0.02)	3.12 (0.02)	-2.40 (0.13)	0.27 (0.01)	-0.20 (0.00)	3.19 (0.02)	-2.42 (0.17)	0.25 (0.04)	-0.20 (0.01)	3.05 (0.02)	-2.40 (0.18)	0.20 (0.17)
CF rights	0.16 (0.05)	0.39 (0.00)	0.24 (0.00)	0.33 (0.00)								
O/C					10.27 (0.03)	24.19 (0.00)	18.64 (0.00)	17.69 (0.00)				
Pyramid level 1									-0.21 (0.96)	-3.95 (0.34)	-3.30 (0.53)	1.34 (0.81)
Pyramid level 2									-7.25 (0.10)	-12.50 (0.00)	-10.58 (0.01)	-10.28 (0.00)
Pyramid level 3									-13.71 (0.00)	-21.49 (0.00)	-17.85 (0.00)	-13.90 (0.00)
Board size	-0.95	-0.95	-1.77	-0.94	-0.98	-1.13	-1.84	-1.22	-1.07	-1.46	-2.00	-1.13

	(0.18)	(0.04)	(0.00)	(0.03)	(0.17)	(0.01)	(0.00)	(0.01)	(0.15)	(0.00)	(0.00)	(0.01)
D_family chairman	15.77	11.02	20.26	7.15	15.60	11.43	21.01	8.35	14.63	10.85	21.01	8.94
	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
D_New Market				-2.24				-4.72				-5.72
				(0.53)				(0.22)				(0.13)
Intercept	9.34	-13.29	8.18	19.31	9.22	-14.64	3.63	20.25	19.35	7.28	23.01	43.13
	(0.46)	(0.22)	(0.59)	(0.08)	(0.42)	(0.18)	(0.82)	(0.15)	(0.09)	(0.50)	(0.08)	(0.00)
R <sup>2</sup>	0.27	0.50	0.39	0.34	0.25	0.48	0.38	0.25	0.29	0.48	0.39	0.27
no. Of observations	94	136	123	156	94	136	123	156	94	136	123	156

**Panel B. Family chairman**

	<i>Model 1</i>				<i>Model 2</i>				<i>Model 3</i>			
	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
Size	0.01 (0.97)	0.41 (0.00)	0.10 (0.47)	0.20 (0.15)	0.06 (0.73)	0.42 (0.00)	0.05 (0.69)	0.31 (0.06)	0.01 (0.94)	0.47 (0.00)	0.06 (0.68)	0.28 (0.07)
Age	-0.01 (0.12)	0.00 (0.96)	0.00 (0.95)	0.00 (0.67)	-0.02 (0.08)	0.00 (0.73)	0.00 (0.96)	0.00 (0.67)	-0.02 (0.07)	0.00 (0.59)	0.00 (0.85)	0.00 (0.68)
Leverage	0.10 (0.41)	-0.02 (0.94)	0.05 (0.79)	0.03 (0.31)	0.08 (0.45)	0.00 (0.99)	0.07 (0.73)	0.03 (0.36)	0.15 (0.23)	-0.02 (0.94)	0.09 (0.67)	0.02 (0.49)
CF rights	0.01 (0.29)	0.04 (0.00)	0.03 (0.00)	0.04 (0.00)								
O/C					1.54 (0.06)	2.31 (0.00)	1.73 (0.03)	3.38 (0.00)				
Pyramid level 1									0.44 (0.53)	-0.90 (0.24)	-0.54 (0.42)	-1.36 (0.04)
Pyramid level 2									-0.81 (0.18)	-1.22 (0.04)	-0.50 (0.37)	-1.50 (0.01)
Pyramid level 3									-1.24 (0.10)	-2.36 (0.00)	-2.00 (0.03)	-2.41 (0.01)
D_New Market				1.44 (0.04)				1.16 (0.09)				1.02 (0.14)
Intercept	0.23 (0.90)	-6.12 (0.00)	-1.88 (0.34)	-3.23 (0.11)	-0.88 (0.64)	-6.25 (0.00)	-1.47 (0.49)	-5.82 (0.03)	0.95 (0.57)	-4.51 (0.01)	0.25 (0.88)	-1.92 (0.31)
Pseudo R <sup>2</sup>	0.05	0.12	0.06	0.10	0.07	0.11	0.04	0.11	0.08	0.14	0.04	0.10
No. of observations	94	136	123	156	94	136	123	156	94	136	123	156

**Panel C. Independent directors**

	<i>Model 1</i>				<i>Model 2</i>				<i>Model 3</i>			
	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
Size	0.27 (0.77)	0.70 (0.37)	1.20 (0.21)	0.18 (0.79)	0.12 (0.89)	0.86 (0.28)	1.10 (0.27)	0.33 (0.65)	0.20 (0.80)	1.24 (0.17)	1.29 (0.21)	-0.12 (0.87)
Age	-0.01 (0.78)	-0.06 (0.03)	-0.02 (0.55)	-0.01 (0.67)	-0.01 (0.80)	-0.07 (0.01)	-0.02 (0.64)	-0.01 (0.72)	-0.02 (0.66)	-0.07 (0.02)	-0.02 (0.56)	-0.02 (0.43)
Leverage	-0.08 (0.23)	2.25 (0.02)	-3.43 (0.01)	0.06 (0.63)	-0.08 (0.25)	2.26 (0.02)	-3.40 (0.01)	0.04 (0.75)	-0.10 (0.21)	2.12 (0.03)	-3.40 (0.01)	0.00 (1.00)
CF rights	0.04 (0.44)	0.21 (0.00)	0.17 (0.01)	0.26 (0.00)								
O/C					0.11 (0.98)	13.74 (0.00)	11.87 (0.00)	14.33 (0.00)				
Pyramid level 1									1.77 (0.65)	-4.86 (0.12)	-3.62 (0.36)	2.36 (0.64)
Pyramid level 2									0.05 (0.99)	-7.03 (0.03)	-6.41 (0.09)	-8.79 (0.00)
Pyramid level 3									-3.42 (0.25)	-12.01 (0.00)	-12.44 (0.00)	-11.17 (0.00)
Board size	-0.15 (0.76)	0.15 (0.64)	0.26 (0.58)	0.61 (0.06)	-0.17 (0.73)	0.05 (0.88)	0.20 (0.67)	0.40 (0.27)	-0.24 (0.66)	-0.17 (0.60)	0.10 (0.84)	0.49 (0.17)
D_family chairman	4.04 (0.10)	-0.21 (0.93)	7.39 (0.00)	-2.44 (0.29)	4.30 (0.09)	-0.19 (0.93)	8.04 (0.00)	-1.60 (0.52)	3.84 (0.16)	-0.34 (0.88)	7.94 (0.00)	-1.07 (0.65)
D_New Market				-2.70 (0.35)				-4.59 (0.13)				-5.47 (0.07)
Intercept	4.41 (0.63)	-6.31 (0.52)	-10.81 (0.38)	-6.68 (0.41)	7.34 (0.40)	-8.31 (0.34)	-11.92 (0.34)	-7.04 (0.47)	8.04 (0.30)	2.54 (0.79)	-1.09 (0.92)	12.17 (0.12)
R <sup>2</sup>	0.05	0.20	0.16	0.16	0.04	0.20	0.15	0.07	0.05	0.19	0.15	0.10
No. of observations	94	136	123	156	94	136	123	156	94	136	123	156



**Table 5. Effects of ownership and board structure on firm's Q**

The table reports the results of OLS on firm's valuation measured by the Tobin's Q. In Panel A the dependent variable for ownership structure is *CF rights*, that is the fraction of firm's equity owned by the ultimate shareholder. In Panel B the dependent variable for ownership structure is *O/C*, that is the ratio between cash flow and voting rights. In Panel C the dependent variables for ownership structure are pyramidal groups. *Pyramid level 1* is a dummy variable that takes the value of 1 when the company belongs to a pyramidal group and is not controlled by any other traded company. *Pyramid level 2* is a dummy variable that takes the value of 1 when the company is directly controlled by a pyramid level 1 company. *Pyramid level 3* is a dummy variable that takes the value of 1 when the firm is directly or indirectly controlled by a pyramid level 2 company. *Size* is the natural logarithm of book value of total assets. *Age* is the number of years since company's foundation. *Leverage* is the debt to equity ratio. *D\_family* is a dummy variable that takes the value of 1 when the ultimate shareholder is a family and 0 otherwise. *Board size* is the number of directors that seat on the board. *% non executives* is the proportion of non-executives directors. *D\_Chairman/CEO* is a dummy variable that takes the value of 1 when the positions of Chairman and CEO are held by the same person. *D\_New Market* is a dummy that takes the value of 1 when the firm is listed on the Nuovo Mercato. p-values from heteroskedasticity consistent standard errors appear in parentheses.

**Panel A. Ownership variable = Cash flow rights**

	<i>Specification (1)</i>				<i>Specification (2)</i>			
	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
Size	-0.10 (0.00)	-0.16 (0.00)	-0.01 (0.88)	-0.03 (0.44)	-0.12 (0.00)	-0.20 (0.00)	-0.06 (0.31)	-0.06 (0.14)
Age	0.00 (0.32)	0.00 (0.65)	0.00 (0.62)	0.00 (0.49)	0.00 (0.31)	0.00 (0.95)	0.00 (0.56)	0.00 (0.64)
Leverage	0.00 (0.47)	-0.05 (0.01)	-0.04 (0.32)	-0.02 (0.00)	0.00 (0.19)	-0.03 (0.11)	-0.04 (0.36)	-0.03 (0.00)
D_family	-0.03 (0.70)	-0.34 (0.01)	-0.19 (0.24)	0.14 (0.20)	-0.02 (0.83)	-0.32 (0.01)	-0.20 (0.22)	0.08 (0.43)
CF rights	0.00 (0.37)	0.00 (0.16)	0.01 (0.03)	0.00 (0.15)	0.00 (0.34)	0.00 (0.15)	0.01 (0.01)	0.00 (0.58)
Board size					0.01 (0.35)	0.03 (0.12)	0.05 (0.15)	0.07 (0.01)
% non executives					0.00 (0.72)	0.00 (0.95)	0.00 (1.00)	0.00 (0.26)
D_Chairman/CEO					0.06 (0.56)	0.05 (0.65)	-0.21 (0.13)	-0.08 (0.48)
D_New Market				0.18 (0.18)				0.25 (0.05)
Intercept	2.22 (0.00)	3.71 (0.00)	1.65 (0.02)	1.95 (0.00)	2.32 (0.00)	3.92 (0.00)	1.88 (0.01)	2.00 (0.00)
R <sup>2</sup>	0.14	0.21	0.04	0.08	0.14	0.23	0.08	0.14
No. Of observations	143	177	168	199	143	177	168	199

**Panel B. Ownership variable = O/C**

	<i>Specification (1)</i>				<i>Specification (2)</i>			
	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
Size	-0.10 (0.00)	-0.16 (0.00)	0.00 (0.97)	-0.03 (0.47)	-0.12 (0.00)	-0.20 (0.00)	-0.05 (0.35)	-0.06 (0.15)
Age	0.00 (0.24)	0.00 (0.54)	0.00 (0.74)	0.00 (0.48)	0.00 (0.23)	0.00 (0.83)	0.00 (0.69)	0.00 (0.64)
Leverage	0.00 (0.64)	-0.05 (0.01)	-0.04 (0.33)	-0.02 (0.00)	0.00 (0.31)	-0.03 (0.11)	-0.04 (0.37)	-0.03 (0.00)

D_family	-0.05 (0.57)	-0.32 (0.01)	-0.12 (0.47)	0.12 (0.28)	-0.04 (0.67)	-0.30 (0.02)	-0.11 (0.49)	0.08 (0.47)
O/C	0.15 (0.25)	-0.16 (0.18)	0.70 (0.00)	-0.28 (0.39)	0.15 (0.24)	-0.18 (0.14)	0.84 (0.00)	-0.10 (0.73)
Board size					0.01 (0.38)	0.03 (0.11)	0.05 (0.17)	0.07 (0.01)
% non executives					0.00 (0.71)	0.00 (0.96)	0.00 (0.88)	0.00 (0.26)
D_Chairman/CEO					0.06 (0.58)	0.07 (0.57)	-0.24 (0.09)	-0.08 (0.45)
D_New Market				0.21 (0.11)				0.27 (0.04)
Intercept	2.18 (0.00)	3.70 (0.00)	1.22 (0.09)	1.98 (0.01)	2.28 (0.00)	3.94 (0.00)	1.33 (0.07)	2.02 (0.00)
R <sup>2</sup>	0.14	0.21	0.05	0.07	0.14	0.23	0.09	0.13
No. of observations	143	177	168	199	143	177	168	199

### Panel C. Pyramidal groups

	<i>Specification (1)</i>				<i>Specification (2)</i>			
	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
Size	-0.11 (0.00)	-0.15 (0.00)	0.04 (0.46)	-0.02 (0.57)	-0.12 (0.00)	-0.20 (0.00)	-0.01 (0.88)	-0.06 (0.22)
Age	0.00 (0.21)	0.00 (0.55)	0.00 (0.77)	0.00 (0.97)	0.00 (0.21)	0.00 (0.86)	0.00 (0.69)	0.00 (0.85)
Leverage	0.00 (0.31)	-0.05 (0.02)	-0.04 (0.43)	-0.01 (0.20)	0.00 (0.22)	-0.03 (0.15)	-0.03 (0.47)	-0.01 (0.38)
D_family	-0.05 (0.49)	-0.29 (0.01)	-0.17 (0.27)	0.08 (0.47)	-0.04 (0.59)	-0.26 (0.03)	-0.18 (0.27)	0.05 (0.66)
Pyramid level 1	0.00 (0.97)	0.03 (0.83)	-0.51 (0.00)	-0.28 (0.02)	-0.01 (0.90)	0.06 (0.71)	-0.47 (0.01)	-0.27 (0.02)
Pyramid level 2	0.07 (0.52)	0.04 (0.76)	-0.46 (0.01)	-0.28 (0.01)	0.06 (0.58)	0.07 (0.61)	-0.46 (0.01)	-0.34 (0.00)
Pyramid level 3	-0.17 (0.07)	0.04 (0.72)	-0.65 (0.00)	0.64 (0.08)	-0.17 (0.07)	0.08 (0.42)	-0.66 (0.00)	0.45 (0.19)
Board size					0.01 (0.52)	0.03 (0.11)	0.04 (0.31)	0.06 (0.01)
% non executives					0.00 (0.75)	0.00 (0.94)	0.00 (0.83)	0.00 (0.36)
D_Chairman/CEO					0.05 (0.64)	0.04 (0.73)	-0.22 (0.11)	-0.08 (0.42)
D_New Market				0.21 (0.12)				0.26 (0.04)
Intercept	2.40 (0.00)	3.46 (0.00)	1.51 (0.02)	1.67 (0.00)	2.47 (0.00)	3.71 (0.00)	1.79 (0.01)	1.83 (0.00)
R <sup>2</sup>	0.15	0.21	0.07	0.11	0.15	0.23	0.23	0.16
No. of observations	145	177	169	202	145	177	169	202

**Table 6. Effects of ownership and board structure on family firm's Q**

The table reports the results of OLS on firm's valuation measured by the Tobin's Q for the sub-sample of family-controlled companies. In Panel A the dependent variable for ownership structure is *CF rights*, that is the fraction of firm's equity owned by the ultimate shareholder. In Panel B the dependent variable for ownership structure is *O/C*, that is the ratio between cash flow and voting rights. In Panel C the dependent variables for ownership structure are pyramidal groups. *Pyramid level 1* is a dummy variable that takes the value of 1 when the company belongs to a pyramidal group and is not controlled by any other traded company. *Pyramid level 2* is a dummy variable that takes the value of 1 when the company is directly controlled by a pyramid level 1 company. *Pyramid level 3* is a dummy variable that takes the value of 1 when the firm is directly or indirectly controlled by a pyramid level 2 company. *Size* is the natural logarithm of book value of total assets. *Age* is the number of years since company's foundation. *Leverage* is the debt to equity ratio. *Board size* is the number of directors that seat on the board. *Family members* is the proportion of directors that belong to the controlling family. *D\_family chairman* is a dummy variable that takes the value of 1 when the Chairman of the firm belongs to the controlling family. "*Independent*" directors is the proportion of board members that are non-family members and non-executive directors. *D\_New Market* is a dummy that takes the value of 1 when the firm is listed on the Nuovo Mercato. p-values from heteroskedasticity consistent standard errors appear in parentheses.

**Panel A. Ownership variable = Cash flow rights**

	1978	1988	1998	2003
Size	-0.13 (0.00)	-0.16 (0.00)	-0.14 (0.13)	-0.06 (0.26)
Age	0.00 (0.37)	0.00 (0.42)	0.00 (0.91)	0.00 (0.54)
Leverage	0.00 (0.13)	-0.02 (0.62)	0.00 (0.98)	-0.03 (0.01)
CF rights	0.00 (0.82)	0.00 (0.49)	0.01 (0.16)	0.00 (0.96)
Board size	0.02 (0.43)	0.05 (0.02)	0.07 (0.11)	0.06 (0.01)
Family members	0.00 (0.82)	0.00 (0.33)	0.00 (0.68)	0.00 (0.62)
D_family chairman	-0.06 (0.74)	-0.11 (0.24)	-0.01 (0.97)	-0.17 (0.30)
"Independent" directors	0.00 (0.95)	0.00 (0.47)	0.00 (0.80)	-0.01 (0.11)
D_New Market				0.25 (0.08)
Intercept	2.37 (0.00)	2.95 (0.00)	2.35 (0.03)	1.86 (0.01)
R <sup>2</sup>	0.14	0.16	0.08	0.13
No. of observations	88	132	122	152

**Panel B. Ownership variable = O/C**

	1978	1988	1998	2003
Size	-0.13 (0.00)	-0.16 (0.00)	-0.14 (0.13)	-0.06 (0.31)
Age	0.00 (0.35)	0.00 (0.47)	0.00 (0.82)	0.00 (0.54)
Leverage	0.00 (0.61)	-0.02 (0.60)	0.00 (1.00)	-0.03 (0.00)
O/C	0.09 (0.61)	-0.14 (0.41)	0.63 (0.05)	0.04 (0.91)

Board size	0.02 (0.43)	0.05 (0.02)	0.07 (0.11)	0.06 (0.02)
Family members	0.00 (0.87)	0.00 (0.34)	0.00 (0.71)	0.00 (0.61)
D_family chairman	-0.06 (0.72)	-0.11 (0.25)	0.01 (0.97)	-0.18 (0.30)
"Independent" directors	0.00 (0.98)	0.00 (0.48)	0.00 (0.82)	-0.01 (0.12)
D_New Market				0.25 (0.09)
Intercept	2.32 (0.00)	3.00 (0.00)	2.06 (0.05)	1.80 (0.04)
R <sup>2</sup>	0.14	0.16	0.09	0.13
No. of observations	88	132	122	152

**Panel C. Pyramidal groups**

	<i>1978</i>	<i>1988</i>	<i>1998</i>	<i>2003</i>
Size	-0.14 (0.00)	-0.16 (0.00)	-0.10 (0.31)	-0.04 (0.52)
Age	0.00 (0.30)	0.00 (0.36)	0.00 (0.72)	0.00 (0.91)
Leverage	0.00 (0.30)	-0.01 (0.71)	-0.01 (0.96)	-0.03 (0.01)
Pyramid level 1	0.09 (0.50)	0.09 (0.65)	-0.58 (0.00)	-0.45 (0.00)
Pyramid level 2	0.20 (0.26)	0.03 (0.85)	-0.51 (0.01)	-0.61 (0.00)
Pyramid level 3	-0.08 (0.56)	0.04 (0.81)	-0.42 (0.17)	0.26 (0.44)
Board size	0.01 (0.55)	0.05 (0.02)	0.06 (0.16)	0.05 (0.02)
Family members	0.00 (0.73)	0.00 (0.52)	0.00 (0.70)	0.00 (0.64)
D_family chairman	-0.05 (0.77)	-0.11 (0.27)	0.01 (0.94)	-0.25 (0.14)
"Independent" directors	0.00 (0.81)	0.00 (0.53)	0.00 (0.79)	-0.01 (0.08)
D_New Market				0.21 (0.14)
Intercept	2.52 (0.00)	2.90 (0.00)	2.34 (0.01)	1.73 (0.01)
R <sup>2</sup>	0.16	0.15	0.12	0.22
No. of observations	88	132	122	152