

# Pyramidal structures, voting trusts and performance: empirical evidence from Italian listed companies

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## Abstract

The paper explores the antecedents and the impact of pyramidal structures and voting trusts in Italian S&P/MIB 40 companies. Literature suggests that these “control enhancing mechanisms” allow the deviation from the proportionality principle, and predicts that they affect company performance. The study sheds some light on this relationship and documents the misalignment between economic and market outcomes in the companies under investigation. In particular, the findings show that pyramidal structures and voting trusts are common when the firm’s economic result is high. However, companies ruled by these control enhancing mechanisms present a limited market performance. The research has both theoretical implications for future studies, and practical implications for policy makers. First, it illustrates that the company performance is both driven and affected by control enhancing mechanisms. Second, it suggests that proper and effective investor protection is an important tool to support the corporate governance quality, to foster new company listings and to promote equitable treatment for minority shareholders.

**Keywords:** pyramidal structures, voting trusts, performance

## 1. Introduction

Unlike Anglo-Saxon companies, Italian listed firms are characterized by high ownership concentration due to the presence of family owners and the State as large controlling shareholders (Bianco and Casavola, 1999; Cascino et al., 2010).

The blockholders limit the classic agency risk (Roe, 1994) but foster the expropriation of wealth to the detriment of minority investors. This is mainly true in the presence of disproportional ownership mechanisms (the so called CEMs) that deviate from the proportionality principle according to which one share implies one vote (Bigelli and Megoli, 2004; Enriques and Volpin, 2007; ISS, 2007; Zattoni and Cuomo, 2010). In fact, the incentives to extract private benefits increase as the separation between cash-flow rights and voting rights through “control enhancing mechanisms” (CEMs) improves, especially in settings with low investor protection (La Porta et al., 2000; Bigelli et al., 2011).

The devices most commonly used to hamper the proportionality rule are: i) cross shareholdings; ii) non-voting shares; iii) pyramidal structures; iv) voting trusts (Burkart and Lee, 2008). These mechanisms are typical of most Asian and European countries (Claessens et al., 2000; Faccio and Lang, 2002; ISS, 2007; Intrisano, 2009; 2012; Zattoni and Cuomo, 2010; Saggese, 2013a; Di Carlo, 2014). In Italy, for example, the wedge between cash-flow rights and voting rights is particularly strong and is mainly due to the pyramidal structures and the voting trusts (Hauser and Lauterbach, 2004; ISS, 2007; Gianfrate, 2007; Intrisano, 2009; 2012; Saggese, 2013a; Di Carlo, 2014). In this setting, blockholders can control the firm by appointing the majority of its board members and by influencing its strategic and operating options (Pagano et al., 1998). Therefore, Italy is one of the countries with the highest private benefits of control, as suggested by the large premium price for the controlling shares (Zingales, 1994).

On the bases of these premises, this research discusses the main findings of an exploratory analysis on the antecedents and the impact of pyramidal structures and voting trusts in the Italian S&P/MIB 40 companies. In particular, this study aims to understand in which firms the presence of these CEMs prevails, and to explore how they reflect on both the economic and the market performance.

Italy represents an ideal setting to examine these issues. First, Italian firms have been historically prone to poor corporate governance practices with specific reference to the misalignment of cash-flow rights and voting rights (Johnson et al., 2000; Faccio and Lang, 2002; Volpin, 2002; Aganin and Volpin, 2003; Saggese, 2013a). Second, in Italy, the pyramidal structures and the voting trusts prevail on both listed and unlisted companies (Brioschi et al., 1990; La Porta et al., 1999; Faccio and Lang, 2002).

The analyses provide interesting results. In firms ruled by voting trusts or pyramidal structures, the economic performance is steadily higher than in other firms. Conversely, the market performance is worst than in companies not controlled by the devices under investigation.

These findings suggest that pyramidal structures and voting trusts are more common when firms have a better economic performance. In fact, higher accounting returns allow the controlling shareholders to extract considerable private benefits as the resources that they can manage with discretion are greater and the prospective wealth expropriation as well. At the same time, the limited market performance of the companies ruled by the devices under investigation reflects the negative stock market reaction to ownership structures that deviate from the proportionality rule.

The article is organized as follows. Section 2 presents the theoretical background, discusses the relevant literature and develops the hypotheses. Section 3 describes the research design and presents the data. Section 4 illustrates and discusses the findings. Section 5 concludes and presents a research agenda for future studies.

## **2. Theoretical framework and hypotheses**

Ownership structure is crucial for corporate governance as it has important implications for the company's behavior and outcomes (Thomsen and Pedersen, 2000; Gugler, 2001; ISS, 2007; Zattoni and Cuomo, 2010).

Literature has provided two competing views to predict the influence of ownership structure on firm performance. The former, known as "alignment hypothesis", predicts that companies with highly concentrated ownership structures better perform than other firms. The underlining reason is that the lower ownership dispersion decreases the managerial opportunism and the risk of shareholder expropriation (Jensen and Meckling, 1976; Thomsen and Pedersen, 2000; Gugler, 2001). The latter, known as "entrenchment hypothesis", suggests that highly concentrated ownership structures foster large shareholders to expropriate minority investors (Schulze et al., 2003), and negatively affect company performance (Lins, 2003; Cronqvist and Nilsson, 2003; Maury and Pajuste, 2005; Bozec and Laurin, 2008; Villalonga and Amit, 2009; Zattoni and Cuomo, 2010).

Governance studies have mainly focused on the U.S. setting where firms are typically characterized by widespread ownership, and the agency conflict (the "agency problem type I") involves opportunistic managers and company owners. However, it is worth noting that outside the U.S. companies present highly concentrated ownership structures and the main governance problems are the conflicts between controlling and minority shareholders as well as the risk of their expropriation (the "agency problem type II") (La Porta et al., 1999; Cascino et al., 2010).

Over the last decade, governance scholars and policy makers have started to examine the mechanisms that foster this type of conflict by deviating from the proportionality principle (also called "one share-one vote") (Thomsen and Pedersen, 2000; Adams and Ferreira, 2008; Zattoni and Cuomo, 2010). According to this rule, shareholders should always be involved in the decision-making process since suffering the consequences of their own decisions provides incentives to value maximizing behavior (Grossman and Hart, 1988). Therefore, scholars contend that, on one hand the control rights should be assigned in proportion to the equity holding; and, on the other hand, they should be associated to equal cash-flow rights (Burkart and Lee, 2008).

Nevertheless, all over the world several firms are characterized by control enhancing mechanisms (CEMs) that deviate from the rule under analysis, and produce a wedge between ownership and control through the separation of cash-flow rights and voting rights (Faccio and Lang, 2002; ISS, 2007; Villalonga and Amit, 2009; Zattoni and Cuomo, 2010). In fact, in the presence of CEMs, a single investor (or a narrow group of shareholders) frequently exerts the majority of voting rights irrespective of the related cash-flow rights. Thereby, these devices magnify the potential conflict between majority and minority shareholders, as large owners can completely extract the private benefits of control. This is especially true in settings with limited investor protection (Bebchuck et al., 2000). In fact, in a "law and finance" perspective, the lack of effective regulation improves the incentives to use CEMs opportunistically (La Porta et al., 1999; 2000).

These mechanisms are typical of most Asian and European countries (Claessens et al., 2000; Faccio and Lang, 2002; ISS, 2007; Intrinsicano, 2009; 2012; Zattoni and Cuomo, 2010; Saggese, 2013a; Di Carlo, 2014), and the literature has provided a systematic picture of their main features in each setting (Deminor Rating, 2005; ISS, 2007; Zattoni and Cuomo, 2010). In Europe, for example, prompted by the aim to harmonize both the commercial law and the financial market regulations, the debate on these mechanisms has been strongly fuelled in 2007 by the publication of the first official study commissioned by the European Union to identify CEMs (ISS, 2007), and by the report of the OECD on the lack of proportionality between ownership and control (OECD Steering Group on Corporate Governance, 2007). While these studies emphasize that this year has been crucial for the ongoing debate on CEMs (Zattoni and Cuomo, 2010, Saggese, 2013a), they suggest that in Italy the most used mechanisms are pyramidal structures and voting trusts (Bianco and Casavola, 1999; Zattoni, 1999; Volpin, 2002; Ferrarini, 2006; ISS, 2007; Intrinsicano, 2009; 2012). Nevertheless, how these devices impact firm performance is still an open issue. Overall, the strong risk of expropriation makes shareholders one of the most critical stakeholders of companies ruled by the mechanisms under analysis, and improves their incentives to firm value maximization (Zattoni, 2011). However, despite this topic has attracted the researchers' attention, we still lack consensus on how control enhancing devices affect both the accounting and the market outcomes.

### ***2.1. The performance as antecedent and consequence of pyramidal structures and voting trusts***

Pyramidal structures and voting trusts are the most common CEMs in Italy (ISS, 2007). Both devices can hamper the effectiveness of the market for corporate control and the partial ownership concentration (Manne, 1964; Shleifer and Vishny, 1997). In fact, the deviation from the proportionality principle due to these mechanisms protects controlling shareholders from takeovers and provides

them incentives to tunneling and self-dealings activities (Bebchuk et al., 2000; Johnson et al., 2000; Claessens et al., 2002; Morck et al., 2005; Burkart and Lee, 2008). However, each CEM presents its own features and peculiarities (Deminor Rating, 2005; ISS, 2007).

In particular, a pyramid is as an entity characterized by a top-down chain of control, starting with the majority owners at the apex and presenting successive lower layers of legally independent firms. In pyramidal structures, companies are interlocked together so that the ultimate owners rule the firms within the group through a set of hierarchical control chains that are directly or indirectly controlled (Brioschi et al., 1990; Claessens et al., 2000; Faccio and Lang, 2002; Attig et al., 2004; Levy, 2009; Di Carlo, 2014).

Previous studies suggest that the supra-corporate linkages in pyramidal structures may be used by controlling owners to orchestrate opportunistically their corporate behavior in order to extract private benefits at the expense of minority shareholders (Saggese, 2013b). In fact, the stock pyramiding mechanism (Zattoni, 1999) makes the separation between cash-flow rights and voting rights especially strong (Attig et al., 2004). It allows the large owners to control the company's resources but limits their equity underwriting and the connected risk of losses (Berle and Means, 1932). Thereby, despite all firms of pyramidal structures take advantage of risk sharing, the main benefits of such devices concern the majority owners. First, the controlling mechanism of pyramids allows these investors to maximize the resources that they manage, holding the equity underwritten constant (the so called "leverage"). Second, it supports the controlling shareholders in locking-in the voting power of affiliated firms without bearing the overall costs/losses related to their managerial choices ("limited liability principle"). The voting trusts are explicit agreements that shareholders use to rule their behavior and conjointly run the company (Gianfrate, 2007; Saggese, 2013a). In particular, equity investors resort to these devices to bind their voting rights in the shareholders' meetings in order to protect their private interests. Thereby, the CEMs under analysis produce a similar effect to the pyramidal structures because they deviate from the proportionality principle and limit the company's contestability (ISS, 2007; Intrisano, 2009). In this respect, the empirical evidence suggests that voting trusts foster the extraction of private benefits by majority shareholders and the expropriation of minority investors (Gianfrate, 2007). Therefore, both pyramidal structures and voting trusts can arise entrenchment issues (Bebchuk et al., 2000; Claessens et al., 2002; Burkart and Lee, 2008; Di Carlo, 2014) ranging from the inefficiencies of the market for corporate control to the distortions in investment decisions (Grossman and Hart, 1988; Bebchuk et al., 2000).

Moreover, firms ruled by CEMs often present transparency problems that negatively affect the stock market performance (Bianchi and Bianco, 2006; Saggese, 2013b). Since the proportionality principle prevents the potential agency conflicts of type I, and results in an increased shareholder value (Manne, 1964), scholars predict that the market should also discipline the diversion from the "one share—one vote" rule (Burkart and Lee, 2008). In fact, although the controlling owners allow the overtaking of free riding and managerial opportunism, they

increase the minority expropriation risk due to the limited transparency of their activity (Becht, 1997). As a result, the outside investments by non-controlling investors are discouraged and the market and accounting outcomes are not aligned with one other (Bianchi et al., 2001). The empirical evidence has supported this prediction by showing the negative effect of the diversion from the proportionality principle on the market performance (Core et al., 2006; Gompers et al., 2010). Therefore, the following prediction can be formulated:

*Hp.1) The use of pyramidal structures and voting trusts is negatively related to the market performance.*

While the majority of studies have explored the effects of CEMs, few researches have investigated the drivers of such mechanisms. For the most part, they have focused on the identity of controlling shareholders, on the company size, and on the legal origin of the country where the companies are located. However, these studies have yielded mixed conclusion on how these features affect the use of CEMs (Demsetz and Lehn, 1985; Thomsen and Pedersen, 2000; Gugler, 2001; Almeida and Wolfenzon, 2006; Zattoni and Cuomo, 2010). In addition, limited attention has been devoted to the impact of company performance on the devices under analysis, despite the literature is consistent with the idea that the company outcomes may matter for CEMs. In this respect, the empirical evidence has mainly shown that the presence of control enhancing mechanisms is associated with higher economic outcomes (Holderness and Sheehan, 1988; Thomsen and Pedersen, 2000; Maury and Pajuste, 2005; Barontini and Caprio, 2006). Nevertheless, scholars claim that the incentives to use the tools to deviate from the proportionality principle are larger when the available resources and the discretion to their allocation are higher as well. In fact, literature suggests that the financing requirements and the limitations to the resources that can be ruled by managers (for example the debt load improvements) are important expedients to control their opportunism (Shleifer and Vishny, 1997; Gomes and Novaes, 2005).

The accounting performance identifies the amount of resources at the disposal of the firm to allocate in new activities or to employ as dividends for shareholders. Since the availability of these resources improves the incentives of controlling owners to make discretionary choices, the following prediction can be formulated:

*Hp.2) The economic performance is positively related to the use of pyramidal structures and voting trusts.*

### **3. Research design and data**

The analyses of this exploratory study are based on the Italian listed companies of the S&P/MIB 40 in 2007.

The choice to examine the firms belonging to this index relies on its ability to reflect the main characteristics of the Italian financial market both in terms of industry composition and company performance. Moreover, focusing on the

observation period 2006-2007 allows to identifying and fully exploiting the features of the CEMs under investigation. In fact, 2007 has witnessed a growing interest of scholars and practitioners around CEMs, as a consequence of the pressures of policy-makers aimed to harmonize both the commercial law and the financial market regulations. As previously reported, this year, the ongoing debate on disproportional ownership mechanisms has been strongly fuelled by the publication of the first official study commissioned by the European Union to identify CEMs (ISS, 2007), and by the OECD report on the lack of proportionality between ownership and control (OECD Steering Group on Corporate Governance, 2007). Therefore, 2007 can be considered as a crucial year for the debate on CEMs (Zattoni and Cuomo, 2010, Saggese, 2013a). In addition, the choice of examining the time-frame 2006-2007 avoids any potential bias that might be induced by the mandatory adoption of IFRS (International Financial Reporting Standards) from 2005 onward.

On the bases of these premises, to address the research questions, the design of this study is framed as follows: i) data collection on the ownership structure and the performance of S&P/MIB 40 companies, ii) classification of these firms into 4 clusters according to their ownership structure, iii) quantitative analysis of data.

Ownership data is collected from i) the firm's governance report 2007, ii) the official communication provided by the companies to the CONSOB and, iii) the AIDA database. The data on the economic (ROE and ROA 2006) and the financial market performance 2006 and 2007 is hand collected by drawing available information from i) the CONSOB database, ii) Borsa Italiana and, iii) the financial reporting of the fiscal year 2006.

To estimate the impact of the CEMs under analysis on the firm performance, the Italian S&P/MIB 40 companies are classified into the following 4 clusters: i) firms ruled by voting trusts, ii) firms ruled by pyramidal structures, iii) firms ruled by pyramidal structures and voting trusts and, iv) firms with direct control.

Following prior literature, companies ruled by voting trusts are characterized by an agreement/alliance that assigns the voting control (i.e. the absolute or relative majority of voting rights) at the shareholder meetings. Firms ruled by pyramidal structures are those with a holding company that has at its disposal the majority of voting rights, and exerts a prevailing influence on the shareholder meetings. Finally, companies with direct control are those with a shareholder with at least 10% or 20% of shares (La Porta et al., 1998; Faccio and Lang, 2002; ISS, 2007; Zattoni and Cuomo, 2010).

In order to explore the predictions on the impact of pyramidal structures and voting trusts on the performance, this research provides a descriptive analysis of the companies under investigation based on the comparison between the median and the average values of the performance measures in each cluster. There are three main reasons for the choice to combine these variables. First, the median value limits the potential effects of outliers (in this sample the company "Alitalia"). Second, the mere average mean of the variables under consideration would be widely biased by the most numerous cluster (i.e. companies with direct control). Third, in the presence of few observations, the median value better shows the trend of the variable under analysis. Thereby, this methodological approach is

coherent with the exploratory purpose of the present study, as well as with its focus on 2007 as the year that allows identifying CEMs and assessing their relationship with the company performance.

#### 4. Findings and discussion

Figure 1 provides an overview of the main characteristics of the sample in terms of industry composition, longevity and market capitalization.

The industry classification relies on the “Global industry classification standard” developed by Standard & Poor's and Morgan Stanley Capital International. It is a widely accepted industry analysis framework for investment research, portfolio management and asset allocation that provides an accurate and reliable picture on the company industries. Figure 1.1 shows the preponderance of companies operating in the financial industry (30%), since the majority of them are banks and insurances (12 firms). They are followed by companies belonging to the “consumer discretionary” (20%), “industrials” (18%) “utility” (10%) and “energy” (8%) sectors. Behind these top five, each remaining industry is represented by a lower percentage of companies (below 7%).

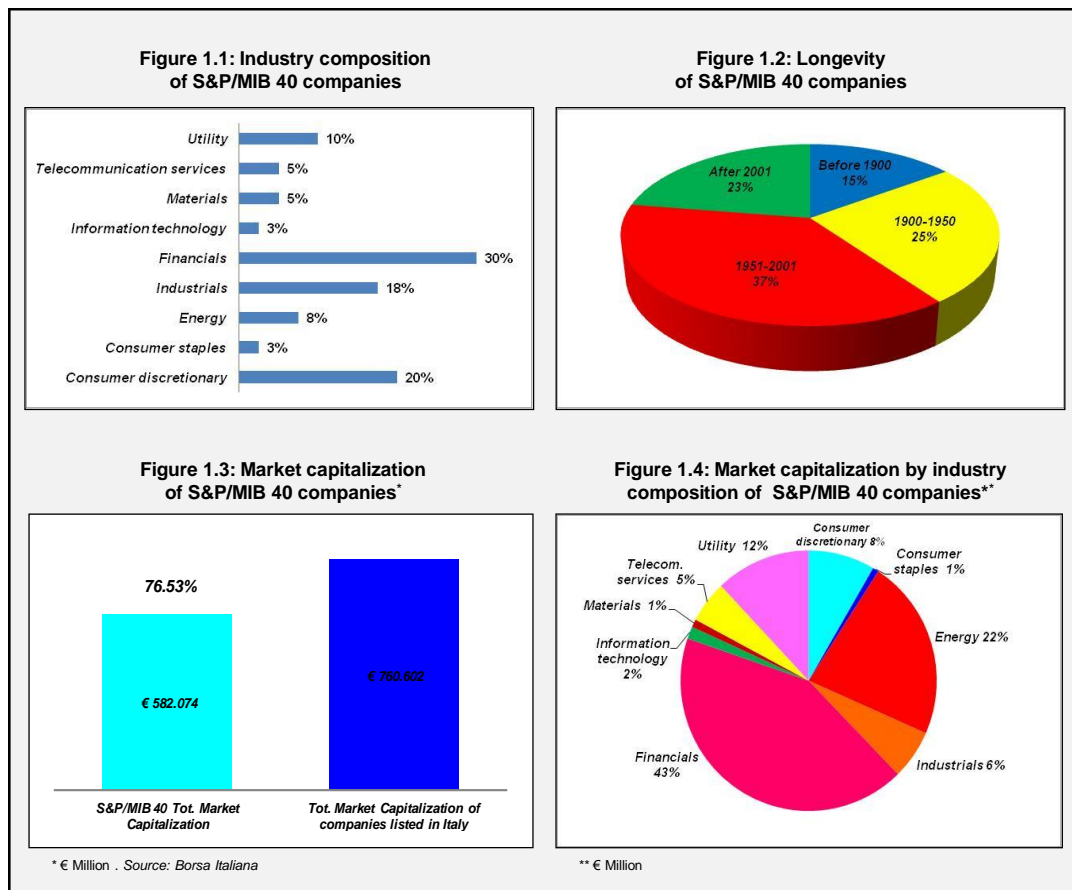
The majority of firms has been set up between 1951 and 2001 (37%), as well as in the time-frame 1990-1950 (25%). Conversely, a lower proportion has been spawned in the two outer observation windows (15% before 1900 and 23% after 2001) (Figure 1.2).

Overall, it is worth noting that the companies under investigation cover 76.53% of the total market capitalization (hereafter “Mkt. cap.”) of all firms listed in Italy in 2007 (see Figure 1.3). This result witnesses the ability of the S&P/MIB 40 index to reflect the main characteristics of the Italian financial market. However, as illustrated in Figure 1.4, the market capitalization is not equally allocated to all S&P/MIB 40 companies. In particular, while the greater proportion is covered by the firms belonging to the “financials” (43%) and the “energy” (22%) industries, a significantly smaller percentage affects the companies of the “utility” (12%), the “consumer discretionary” (8%), and the “industrials” (6%) sectors. Behind these top five, the market capitalization allocated to each remaining industry is represented by a lower proportion (equal or below 5%).

Taken together, these results provide evidence on the strong relevance of the bank and insurance companies for the S&P/MIB 40 index. This is especially true for “Unicredito Italiano” (Mkt. cap. 75.506,81 € million), “Intesa Sanpaolo” (Mkt. cap. 63.950,85 € million) and “Generali” (Mkt. cap. 43.507,65 € million) that cover about one-third of the overall market capitalization of the index. Nevertheless, the findings suggest that some companies provide a very strong contribution to the whole total capitalization, despite their low presence in the index. For example, “Eni” belongs to the “energy” sector (that covers 8% of firms only) but presents the greater market capitalization (100.614,61 € million) of all S&P/MIB 40 companies.



**Figure 1. Descriptive statistics**



Source: our elaboration

Figure 2 provides an overview of the ownership structure of the firms under analysis in terms of shareholding interests, type of owners and type of CEMs (i.e. presence of pyramidal structures and voting trusts).

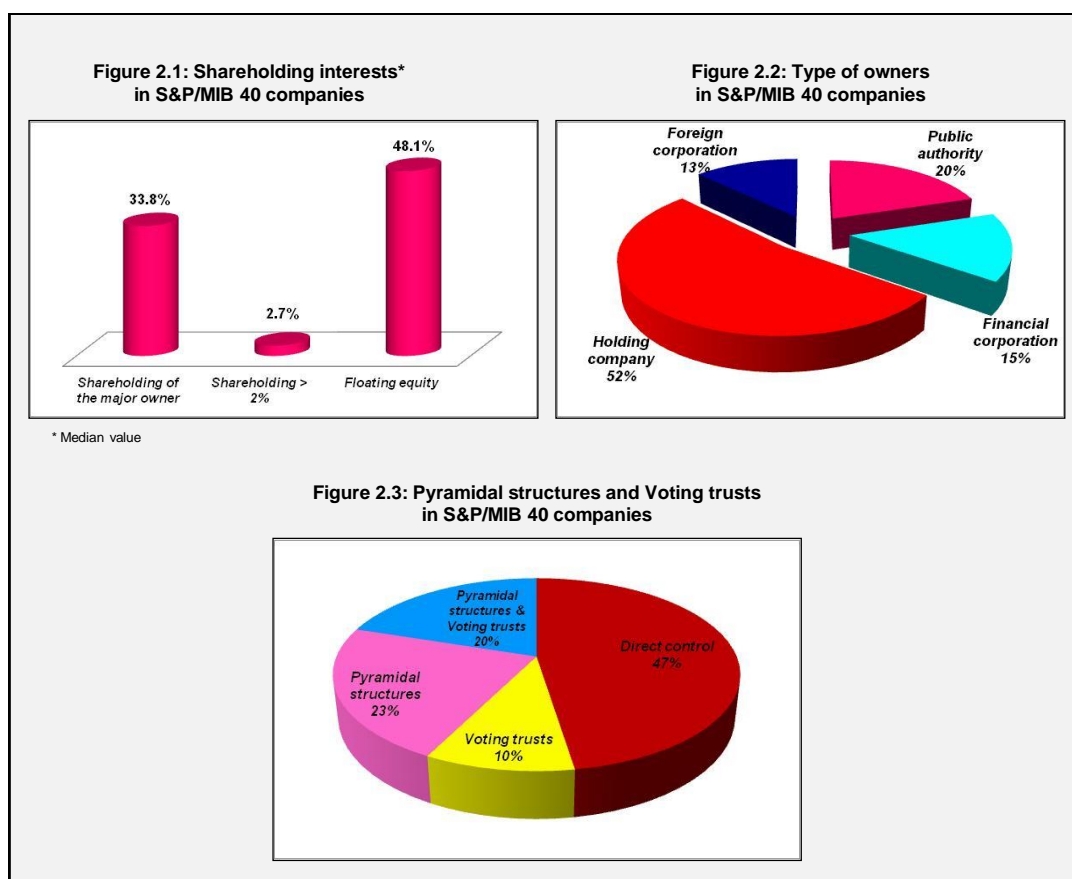
The statistics for the ownership stakes (see Figure 2.1) show that, in S&P/MIB 40 companies, the interests of major owners (33.8%) are significantly higher than investors with more than 2% of company equity (hereafter “other sharehold. > 2%”) (2.7%). Despite this proportion is lower than 50%, the value exceeds the threshold identified by the Italian takeover bid regulation. Therefore, it can be argued that the S&P/MIB 40 companies present a moderate ownership concentration, as the average number of controlling shareholders (i.e. 4.4) also suggests.

In respect to the type of owners (see Figure 2.2), more than half of the sample firms are controlled by a holding company (52%). Conversely, a considerably lower number of firms is controlled by public authorities (20%), financial (15%) or foreign (13%) corporations. On one hand, this result provides additional evidence on the typical characterization of the Italian financial market. On the other hand, it

is in line with prior corporate governance studies claiming that the owners' identity is relevant for firm performance, and showing that banks, families, institutional investors and the State are the main shareholders of large companies (Barca and Becht, 2001).

With regard to the type of CEMs, as previously described, the Italian S&P/MIB 40 firms can be classified into the following clusters: i) companies ruled by voting trusts, ii) companies ruled by pyramidal structures, iii) companies ruled by pyramidal structures and voting trusts and, iv) companies with direct control. It is worth noting that, by applying this classification scheme, the firms under investigation are irregularly allocated into the 4 categories. In particular, as suggested by Figure 2.3 and by Table 1, the companies with direct control belong to the most numerous sub-sample (47%, N. = 19). They are followed by the firms ruled by pyramidal structures (23%, N. = 9), and by those both ruled by pyramidal structures and voting trusts (20%, N. = 8). Conversely, the companies controlled by voting trusts belong to the less numerous cluster (10%, N. = 4).

**Figure 2. Ownership structure of S&P/MIB 40 companies**



Source: our elaboration

As highlighted by Table 1, on average, companies ruled by pyramidal structures present the highest economic performance both in terms of ROE (20.4) and ROA (10.3). They are followed by firms jointly ruled by this CEM and voting trusts (ROE = 14.2). Behind these top two categories, the performance of the companies belonging to the remaining clusters is lower than the outcome of their peers. In particular, companies ruled by voting trusts only present a ROE equal to 12.3, while firms with direct control show a return on equity even smaller (i.e. ROE = 9.2). Different conclusions can be drawn with regard to the market performance (Market performance 1 year, hereafter "Mkt. perf. 1 year"). In fact, firms jointly ruled by pyramidal structures and voting trusts perform better than all other companies (Mkt. perf. 1 year = -5.6).

**Table 1. Performance of pyramidal structures and voting trusts**

Type of Control	Performance			
		ROE 2006	ROA 2006	Mkt perf. 1 year
<b>Direct control</b> N. 19	Mean	9.2	3.4	-10.7
	Std. Dev.	20.5	6.3	13.9
<b>Voting trusts</b> N. 4	Mean	12.3	6.8	-17.0
	Std. Dev.	4.4	4.2	14.0
<b>Pyramidal structures</b> N. 9	Mean	20.4	10.3	-7.0
	Std. Dev.	9.3	6.9	14.7
<b>Pyramidal structures &amp; Voting trusts</b> N. 8	Mean	14.2	4.3	-5.6
	Std. Dev.	21.9	2.9	30.1
<b>Total</b> N. 40	Mean	13.0	5.5	-9.3
	Std. Dev.	17.9	6.2	18.1

Source: own elaboration.

The correlation analysis (see Table 2) shows that the variables of interest are reliable and lack of anomalous values.

Overall, it is worth noting the positive and significant correlation (.43\*\*) between floating equity ("Floating eq.") and proportion of market capitalization on the total market capitalization of all Italian listed companies ("% Mkt. cap.").

As for the dummies that identify the ownership structure in terms of number of shareholders with more than 2% of company equity ("N<sub>i</sub> other shareholders >2%"), and floating equity, the most insightful results regard the correlation with the variables of interest. In detail, there is a positive and significant correlation between number of shareholders with more than 2% of company equity and voting trusts (.36\*), as well as between floating equity and direct control (.37\*).

However, the most interesting findings concern the correlations between the variables of interests and those related to the performance. In this respect, there is a significant and positive correlation between ROE and ROA (.61\*\*), as well as a negative and remarkable correlation between ROA and direct control (-.35\*\*). Opposite conclusions apply to the positive and significant correlation between pyramidal structures and ROA (.52\*).

All in all, these results witness how CEMs impact on company outcomes. However, additional evidence on this phenomenon is provided by the median values of the variables for the company performance.

**Table 2. Correlation**

	A	B	C	D	E	F	G	H	I	L
A) % Mkt. cap.	1									
B) Floating eq.	.43**	1								
C) N <sub>i</sub> other shareholders >2%	.13	.16	1							
D) ROE 2006	.12	.00	.00	1						
E) ROA 2006	.10	-.06	-.14	.61**	1					
F) Mkt. perf. 1 year	-.02	.23	-.20	.19	-.07	1				
G) Voting trusts	-.15	-.10	.36*	-.01	.07	-.13	1			
H) Direct control	.40*	.37*	-.09	-.21	-.35**	-.14	-.31*	1		
I) Pyramidal structures	-.19	-.29	-.23	.25	.52*	.08	-.16	-.47**	1	
L) Pyramidal structures & Voting trusts	-.19	-.09	.07	.03	-.13	.17	-.18	-.51**	-.27	1

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Source: own elaboration.

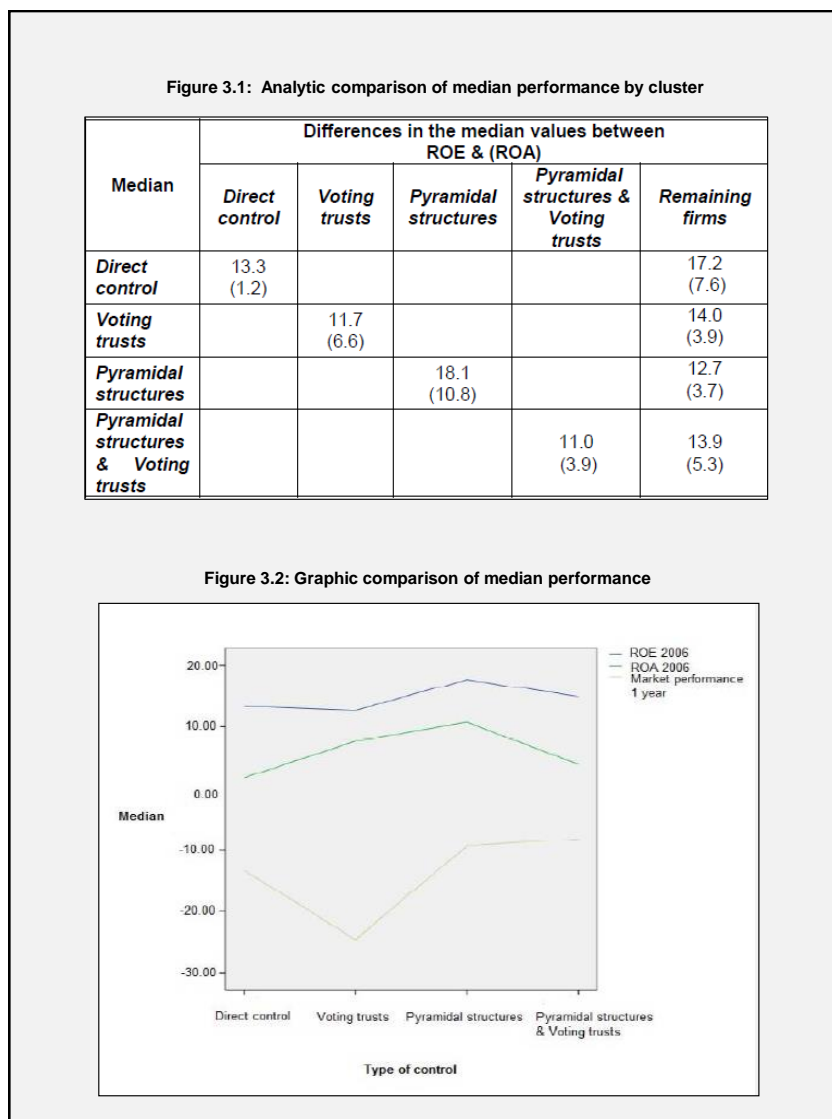
Figure 3 displays the differences in the median values of the 4 clusters. The comparison, both in reference to the ROE and the ROA, suggests that the firms with direct control have steadily lower performances than the remaining companies (ROE = 13.3 vs 17.2; ROA = 1.2 vs 7.6).

The ROE of the firms ruled by voting trusts (i.e. 11.7) is lower than the return on equity of the residual companies (14.0), while the ROA (i.e. 6.6) is considerably higher (3.9). However, the most remarkable results concern the firms ruled by pyramidal structures, as both the ROE (18.1) and the ROA (10.8) are higher than the value of their peers (ROE = 12.7 and ROA = 3.7). Furthermore, the performance of the companies ruled by the joint presence of pyramidal structures and voting trusts is steadily lower compared to the remaining firms (ROE = 11.0 vs 13.9 and ROA = 3.9 vs 5.3).

As for the market performance, it is worth noting that the companies jointly ruled by pyramidal structures and voting trusts (-5.6) are “rewarded” by the stock market. The same consideration applies to the firms ruled by pyramidal structures (-7.0). Conversely, companies with direct control (-10.7), and those ruled by voting

trusts (-17.0), are strongly “penalized” in terms of market performance (see Table 1, column “mkt perf. 1 year”).

**Figure 3. Performance comparison**



Source: own elaboration.

Aiming to understand in which firms the presence of pyramidal structures and voting trusts prevails, and to explore how they reflect both on the economic and the market performance, these results shed additional light on CEMs in Italy.

In this respect, the empirical evidence provided by this exploratory research suggests the remarkable presence of control enhancing mechanisms in the Italian S&P/MIB 40 companies. However, pyramidal structures are the most commonly used CEMs (Brioschi et al., 1990; Zattoni, 1999; ISS, 2007) since they are both employed on its own and in combination with voting trusts.

As for their relationship with the performance, it is worth noting that firms ruled by voting trusts or pyramidal structures present steadily higher economic outcomes than their peers. Conversely, their market performance is worst than companies not controlled by the devices under investigation. These asymmetric outcomes do not involve all firms ruled by CEMs in the same way. While companies with voting trusts are strongly penalized by the stock market, those jointly ruled by pyramidal structures and voting trusts are more rewarded in terms of market performance. Therefore, these results partially support the prediction on the positive relationship between the CEMs under analysis and the economic outcome (i.e. Hp. 2). Conversely, they do not fully validate the hypothesis on the negative impact of these devices on the market performance (i.e. Hp. 1).

Taken together, these findings suggest that pyramidal structures and voting trusts are more common when the firms have a better economic performance. In this respect, higher accounting returns allow controlling shareholders to extract considerable private benefits as the resources that they can manage with discretion are greater, and the prospective wealth expropriation as well (Bebchuk et al., 2000; Claessens et al., 2002; Burkart and Lee, 2008; Saggese, 2013a, 2013b, Di Carlo, 2014). As a result, the use of these devices improves when the economic performance is high for the stronger incentive to the expropriation of minorities. At the same time, despite their economic outcomes are steadily higher than firms not ruled by pyramidal structures or voting trusts, companies that use such mechanisms are penalized by the stock market. In fact, the limited performance of companies controlled by the devices under investigation reflects the negative stock market reaction to the structural opaqueness of the ownership structures that deviate from the proportionality principle (Bianchi and Bianco, 2006; Core et al., 2006; Gompers et al., 2010).

Therefore, in line with previous studies, the findings of this exploratory research suggest that company performance is one of the main drivers behind the use of disproportional ownership mechanisms (Cronqvist and Nilsson, 2003; Liu and Sun, 2005; Maury and Pajuste, 2005; Bennedsen and Nielsen, 2010; Zattoni and Cuomo, 2010; Azofra and Santamaría, 2011). In addition, they support the view that the separation between ownership and control due to CEMs arises from the incentives to the expropriation of minority investors and results in negative market outcomes (La Porta et al., 1999; Bebchuk et al., 2000; Schulze et al., 2003; Core et al., 2006; Cascino et al., 2010; Gompers et al., 2010). Thereby, in line with previous literature, this exploratory research supports the rationale of the opportunistic use of CEMs (Bebchuk et al., 2000; Claessens et al., 2002; Gianfrate, 2007; Burkart and Lee, 2008; Saggese, 2013b; Di Carlo, 2014), and suggests that these mechanisms negatively affect the corporate governance by limiting the managerial transparency and the protection of minorities as critical stakeholders (La Porta et al., 1998; 1999).

This issue is especially relevant in Italy. As emphasized by the study, in this setting there is a notable use of disproportional ownership tools. The large adoption of pyramidal structures and voting trusts in the civil law country under investigation supports the “law and finance” view claiming that the ownership structure is affected by the legal tradition in place where the company is located (La Porta et al., 1998; 1999). In this respect, in Italy the weak investor protection is reflected in a larger deviation from the proportionality principle (ISS, 2007). It fosters majority shareholders to limit their equity investment to control companies (Zattoni, 1999; Almeida and Wolfenzon, 2006; Gianfrate, 2007), and further reinforces the idea that CEMs may be used to expropriate minority shareholders (La Porta et al., 1999; Zattoni, 1999; Morck et al., 2005; Gianfrate, 2007; Zattoni and Cuomo, 2010; Saggese, 2013b).

On the bases of these premises, by exploring the ownership structure and the control scheme of the Italian S&P/MIB 40 companies, the results of this exploratory research offer a twofold contribution to the ongoing debate. On one hand, they provide additional evidence on the diffusion of pyramidal structures and voting trusts in listed companies (Deminor Rating, 2005; ISS, 2007). On the other hand, they disentangle the impacts that these mechanisms have on both the economic and the market performance.

## **5. Conclusions and directions for future research**

This paper belongs to a wide and emerging stream of research that aims to provide insights into the ownership rights’ allocation among critical stakeholders, and into the factors that foster/hamper the use of disproportional ownership mechanisms.

In spite of the prompts for a limited use of CEMs, these devices are very common in Europe, especially in Italy. In this country, the deviation from the “one share-one vote” rule is very frequent, although it could hamper the opportunism of controlling owners. In this respect, the Italian large shareholders hold the majority of voting rights despite their limited cash-flow rights. This misalignment is mainly due to pyramidal structures and voting trusts that represent the typical disproportional ownership mechanisms in place (ISS, 2007).

The empirical research is not yet able to identify all factors that are influenced by CEMs and all drivers of these mechanisms in terms of economic and market outcomes, although the performance maximization is an important tool to protect the shareholders’ interests as one of the most critical stakeholders (Zattoni, 2011). On the basis of these premises, the present study aims to provide an insight on pyramidal structures and voting trusts through an analysis on the top 40 Italian firms per capitalization in 2007.

Previous research has mainly focused on the effects of these devices and has paid only limited attention to their antecedents. Therefore, this study investigates

in which firms the presence of pyramidal structures and voting trusts prevails, and explores how they reflect both on the economic and the market performance.

The empirical results show that the use of these mechanisms improves when the economic performance is high as a consequence of the stronger incentive to the expropriation of minorities. However, the stock market misjudges the companies that use such CEMs. It downsizes their market performance, despite the economic outcomes are steadily higher in comparison to the firms not ruled by pyramidal structures or voting trusts. Therefore, these findings support the rationale that the mechanisms under investigation negatively affect corporate governance by limiting the managerial transparency and the protection of minorities as critical stakeholders.

The research has both theoretical implications for future studies, and practical implications for policy makers. From a theoretical standpoint, it illustrates that the company performance is both driven and affected by CEMs (Thomsen and Pedersen, 2000; Bianchi et al., 2001; Bianchi and Bianco, 2006; Core et al., 2006; Gompers et al., 2010; Zattoni and Cuomo, 2010 Saggese, 2013a). In respect to the practical implications, it suggests that proper and effective investor protection is an important tool to support the corporate governance quality, foster new company listings and promote equitable treatment for minority shareholders.

This debate is especially timely for European countries as the European Union is still involved in the harmonization process of the internal capital markets and corporate laws. In this perspective, the Italian reforms have been appreciable (for example the “Vietti Regulatory Reform” and the “Draghi Law”). However, as suggested by the results of this paper, additional efforts are needed.

Scholars contend that policy making intervention should be aimed to prevent the expropriation of minority investors and to secure the benefits of controlling shareholders as effective monitors (Gugler, 2001; Mengoli et al., 2009; Zattoni, 2011). In line with this literature, the present study emphasizes the importance of forcing effective disclosure requirements on ownership structures in order to improve governance transparency, provide incentives to further equity investments, and protect minorities as crucial stakeholders. Therefore, this research further supports the existing knowledge on CEMs, and sheds some light into the impact of the ownership rights allocation among critical stakeholders.

However, as an exploratory investigation it presents some caveats that will be removed in the future. First, it examines the influence of pyramidal structures and voting trusts on the firm performance of Italian S&P/MIB 40 companies by using descriptive data techniques based on the comparison between the median and the average values of the performance measures in each cluster. In addition, the analyzed data are cross-sectional and the predictions of the study have been tested by limiting the observation window to 2006-2007. As a consequence, it is not possible to make clear inferences regarding causality, and only a panel data sample will allow researchers to test and support these findings. Moreover, despite 2007 is a crucial year for the debate on CEMs (Zattoni and Cuomo, 2010, Saggese, 2013a), and focusing on the S&P/MIB 40 Italian listed companies this year exploits the exploratory purpose of the present research, these choices further limit the study. On one hand, the evidence provided might not necessarily



generalize to all listed firms, especially those belonging to other financial markets. On the other hand, a larger number of companies might improve the significance of the tests. Lastly, the research focuses only on two CEMs identified by the literature. As a result, the evidence provided might not necessarily generalize to all mechanisms to deviate from the proportionality principle.

These limitations highlight that the debate on CEMs still provides a very promising and challenging research agenda. Future research efforts will be aimed to provide a comprehensive picture of the determinants and the effects of all CEMs both in the European and in the East-Asian settings. Therefore, the time-frame and the sample to analyze will be enlarged in order to check for the stability of the hypotheses formulated. In addition, the predictions will be tested through a longitudinal analysis that will override potential cyclical effects and will provide a picture of the predicted relationships along the time.

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