

Corporate Governance as a Viable System: the Role of Intra- and Inter-Systemic Relationships

*Gaetano M. Golinelli**, *Gianluca Vagnani***

1. Introduction

The purpose of this contribution is to study and better understand the role of governance within the corporate system¹.

Governance is the set of structural features needed to effectively manage a company oriented toward the creation of value. These structural features concern the organization of corporate top management, the range of controls performed by the relevant super-systems and the relationship between top management and super-systems.

The study of these issues is of great topical interest. On the one hand, the crisis in large corporations such as Enron, Pacific Gas and Electric, Cirio and Parmalat, has stimulated, both at the national and super-national level, the issuing of a series of recommendations (self-regulation codes) to produce the conditions for effective corporate governance: for example the Cadbury Code (UK), the OECD Principles, the CalPERS Governance principles (US), the Code of Best practice for Corporate Governance (Germany), the Vienot Report (France), the Preda Code (Italy).

On the other hand, the study of the roles of the governing body and the various super-systems in corporate governance is an important topic of theoretical reflection. We refer to both general formulations, ascribable to the theory of stakeholders (Freeman, 1984), the contingency theory (Lawrence, Lorsch, 1967), the theory of resource dependence (Pfeffer, Salancik, 1978), the study of the relationships between ownership and management (Bearle, Means, 1932; Jensen, Meckling, 1979), and to more specific studies concerned with the representation of various stakeholders within the corporate top management boards (Steiner, 1972; Lorsch, 1989), with the composition of the control committees (Bibeault, 1982, Daily, Dalton, 1994) and with ownership composition (Useem, 1999).

* Full Professor of Management, University of Rome-La Sapienza

** Research Fellow in Management, University of Rome-La Sapienza

The relevant literature, while abundant, leaves room for further investigation of some aspects. First of all, both the theoretical studies and the self-regulation codes mentioned above focus more on formal than on substantive aspects, in some cases disregarding the peculiarities characterizing each individual company. Secondly, strong emphasis was given to the monitoring role performed by the various super-systems on the potential opportunistic conduct of managers (decision makers) in a context characterized by information asymmetries and separation between decision-making and risk bearing (Bearle, Means, 1932; Ross, 1973). In this respect, special attention is usually given to the financial and ownership systems, thereby neglecting the role of other systems, such as institutions, labour organizations and consumer associations (Jensen, 2000).

On the other hand, by focusing on managers (holders of decision-making power), the literature does not adequately explore the potential for the opportunistic conduct of managers to be associated with the opportunistic conduct of super-systems². In this respect, and referring specifically to the relationships between ownership and management, it has been noted that '[...] it is certainly impossible to prove, within the current historical situation and corporate size being equal, the existence of systematic or connatural differences between the motives of the manager-owner (or in general, controlling capital representation) and the manager-executive. Nor would it be reasonable to assume that, motives being equal, manager-owners and manager-executives would systematically differ in their choice of tools or goals for the satisfaction of such motives'³.

Starting by considering an organization as a viable system, whose ability to survive depends on actions by the governing board and the pressure and expectations expressed by the various super-systems, this study intends to: (a) define the concept of corporate governance, (b) determine the conditions for such governance to be effective. Such a study, therefore, intends to answer the following questions: what is meant by corporate system governance? Under what conditions is such governance effective?

The answer to these questions starts from framing the problem within a systemic approach to corporate governance (Golinelli, 2001). In such a perspective, a business is considered a viable system operating in a context characterized by a network of entities with greater or lesser systemic qualifications. Within this approach, corporate system governance and the conditions for it to be effective are the subjects of investigation on both the theoretical and empirical levels.

Based on such an investigation some conclusions are then drawn about the role of governance in corporate systems, with special reference to the action of the governing board and super-systems.

2. The Role of Governance in Companies as Viable Systems

Corporate governance can be interpreted from at least two distinct perspectives. First, system governance is based on a set of principles aimed at ensuring the survival of the company over time. Second, corporate governance is based on a set of principles aimed at limiting the potential for opportunistic conduct by

managers or other super-systems toward the company and/or other super-systems.

□ *Several different definitions of corporate governance can be found in self-regulation codes issued by various capitalist systems. For example:*

- *Cadbury Code (UK): governance is the system through which companies are managed and controlled.*

- *OECD Principles: governance concerns a system of relationships between corporate management, the board of directors, the shareholders and other stakeholders. Governance, moreover, includes the organisation that defines corporate goals and the means to achieve and monitor them.*

- *CalPERS Governance Principles (US): governance concerns the relationships between the various stakeholders in determining general corporate orientation and performance. The primary stakeholders are shareholders, management under the CEO and the board of directors.*

- *Code of Best Practice for Corporate Governance (Germany): governance is a set of tools aimed at making corporate managers and controllers responsible and oriented toward the creation of value. Corporate governance rules promote and strengthen consonance between shareholders, financial backers, employees, business partners and citizens in general in national and international markets.*

- *Vienot Report (France): governance allows a company to be made aware of and oriented toward the pursuit of the general interest of the country.*

- *Predda Code (Italy): corporate governance is a set of rules according to which a company is managed and controlled. The aim of corporate governance is the creation of value for shareholders.*

By adopting the systemic approach, effective corporate governance derives from the definition of a set of principles designed to limit the possible insurgence of opportunistic behaviours which are inconsistent with the need for corporate development. In this regard, it has been observed within the theory of property rights that maintaining symmetry between risk and decision-making power assigned to the various players is a central factor in the prevention of such opportunistic conduct⁴. This aspect becomes significant in the context in which it is assumed that '[...] each side tends to over-use what is under its own control and supported by the other side and limit the supply what it supports'⁵.

It follows from these considerations that the way to correctly set up corporate system governance is to allocate decision-making power and risk to the same person (Jensen, Meckling, 1976). This principle, while significantly reducing the potential for opportunistic conduct, shows some limitations as it leads to giving up the benefits of separating risk and the specialization within decision-making functions. It is not easily put into practice in those companies in which the nature and complexity of the problems to be faced require knowledge specialization and

hence a complex decision-making process. It has been observed that only in companies in which specific knowledge is concentrated in a few people '[...] is it efficient to attribute decision-making process control and guidance and risk to those people'⁶.

On the contrary, the allocation of such rights to different people is preferable in companies in which specific knowledge and, more generally, specific investments are distributed among many people. An alternative to maintaining a close relationship between decision making and risk is to keep a certain asymmetry, and hence separation, between the two aforesaid aspects, but separate the phase in which decisions are made (initiation and execution) from the one in which they are controlled. Control over decisions is ensured through the setting up of suitable organisational entities within the governing boards (for example, board of directors, control committee, etc.) and the conduct of the various super-systems (financial institutions, ownership, labour organizations, consumer associations, etc.).

The attention placed by governing board literature had been amply devoted to the structure of the board of directors, and especially its composition and organization. Regarding composition, the literature considers the number of directors, the adequate representation of the various company super-systems in the board of directors (Steiner, 1972) and the relative weight of independent directors (Lorsch, 1989). Regarding organization, attention is paid to the organization of the board of directors into committees, such as the auditing committee and the stock option committee (Bibeault, 1982; Daily, Dalton, 1994).

It follows from these considerations that in companies characterized by suitable composition and organization of the executive boards, the potential for the insurgence of opportunistic conduct is lower, other things being equal, than in companies in which such principles have not been applied (Hypothesis 1). These structural principles indeed allow for controlling and reducing the potential insurgence of opportunistic conduct deriving from the persistence of a situation of separation between decision-making and risk bearing⁷. Instead, regarding the controlling role of the various super-systems, attention is mainly devoted to the financial and ownership systems.

The financial super-system monitors the company through the working of the financial markets and the corporate control markets and through the activity of financial institutions and service companies (e.g. rating and audit firms). The ownership super-system monitors the company through the establishment of statutory rules, the definition of constraints to the remuneration of owned parties, and the power to decide about the structure and composition of the governing board of the corporate system.

When considering the ownership system, composition and degree of concentration are the most significant factors. Regarding ownership composition, it is generally believed that allocating ownership rights to the people in charge of decision-making (management) is preferable to allocating them to other subjects (Ang, Cole, Wun Lin, 2000).

It follows from these considerations that in companies in which the same people hold ownership and decision making rights, the probability of opportunistic conduct is lower, all other things being equal, than in companies in which such rights are allocated to different people (Hypothesis 2).

When ownership rights are allocated to people holding control rights only, the presence of institutional investors becomes particularly significant (Useem, 1999). Indeed, these can exert pressure on the corporate system and express their expectations by voting against the proposals made by management and/or executives, stimulating structural changes and improved performance, requiring different executives, frequently by meeting with them, requiring more information about corporate plans, and ever more often demanding stronger, more independent boards of directors (Useem, 1999).

It follows that in companies in which ownership rights are allocated to institutional investors with a control role, the probability of opportunistic conduct is lower, all other conditions being equal, than in other companies (Hypothesis 3).

3. Empirical Analysis

The hypotheses formulated above about the composition and organization of the board, and the allocation of ownership rights among people holding decision-making power (management) and control power (super-system, and especially institutional investors) can be tested empirically. Such an empirical test is based on the comparison of the structural features of the governing board and the ownership system of a sample of companies in a state of crisis, with comparative ones for companies in a normal state. The sample includes 42 large American companies listed in regulated financial markets⁸. Such a choice is due to the fact that in large companies the volume of specific investments is large and is not, and cannot be, concentrated in the hands of a few people. In addition, the choice of considering listed companies allows the taking of control exerted by the financial markets over the company for granted.

The companies considered have been divided into two samples: the first sample is the subject of analysis, while the second sample serves as a control. The first sample includes 21 companies which between 2000 and 2001, besides having requested an examining procedure, were the targets of judicial action due to illicit conduct by management or other parties connected to the company (such as audit firms, financial institutions, etc.). Each of the companies considered was then compared to a company in a normal state, similar to it in both size (total turnover) and in operational industry (defined based on the Standard Industrial Classification).

Table 1: The Sample Analysed

Industry	Analysis sample	Control sample
<u>Gold & Silver Ores</u>	Sunshine Mining & Refining Co	Apex Silver Mines Ltd
<u>Crude Petroleum & Natural Gas</u>	Forcenergy Inc	Cabot Oil & Gas Corp
<u>Knitting Mills</u>	Fruit Of The Loom Inc	Fab Industries Inc
<u>Apparel & Other Finished Prods Of Fabrics</u>	Galey & Lord Inc	Gymboree Corp
<u>Miscellaneous Fabricated Textile Products</u>	Pillowtex Corp	Westpoint Stevens Inc
<u>Petroleum Refining</u>	Huntway Refining Co	Amerada Hess Corp
<u>Plastics Products, Nec</u>	Armstrong World Industries Inc Usg Corp	Quixote Corp
<u>Concrete Gypsum Plaster Products</u>	Usg Corp	Monarch Cement Co
<u>Abrasive Asbestos & Misc Nonmet. Mineral Products</u>	Owens Corning	Imperial Industries Inc
<u>Metalworking Machinery & Equipment</u>	Devlieg Bullard Inc	P&F Industries Inc
<u>Motor Vehicle Parts & Accessories</u>	Federal Mogul Corp	Edelbrock Corp
<u>Motor Vehicle Parts & Accessories</u>	Hayes Lemmerz International Inc	Aftermarket Technology Corp
<u>Arrang. Of Transport. Of Freight & Cargo</u>	Railworks Corp	Forward Air Corp
<u>Telephone Communications</u>	Icg Communications Inc	At&T Corp
<u>Telephone Communications</u>	Startec Global Communications Corp	American Tower Corp
<u>Wholesale-Petroleum & Petrol. Products</u>	Enron Corp.	World Fuel Services Corp
<u>Retail-Lumber & Build. Mater. Dealers</u>	Payless Cashways Inc	Lowes Companies Inc
<u>Retail-Grocery Stores</u>	Eagle Food Centers Inc	Tuesday Morning Corp
<u>Retail-Retail Stores, Nec</u>	Natural Wonders Inc	King Power Intern. Group Co Ltd
<u>Services-Computer Rental & Leasing</u>	Comdisco Inc	Ctc Communications Corp
<u>Services-Skilled Nursing Care Facilities</u>	Mariner Post Acute Network Inc	National Healthcare Corp

The choice of building a control sample is justified by the need to isolate and control factors that are specific to certain companies and are referable to the economic conditions, general and/or industry-specific. It must be noted that this approach is generally accepted and also used in different studies on corporate crises (Altman, 1977; Sharma, Mahajan, 1980; Chaganti, Mahajan, Sharma, 1985).

For each of the companies considered, two factors ascribable to the structure of the governing board and ownership were considered. Such factors were expressed in terms of measurable attributes, as shown by the following table.

Table 2: The Analysis Variables

1. Structure of the governing board	2. Structure of the ownership super-system
1.1 Type of governing board ⁹	2.1 Share held by non-captive financial institutions
1.2 Fraction of independent directors ¹⁰	2.2 Share held by financial institutions c/director
1.3 Fraction of external directors belonging to financial institutions	2.3 Share held by non-officer c/captive

1.4 Number of board members	employees
1.5 Number of board meetings	2.4 Share held by industrial companies
1.6 Number of groups into which the board is organized	2.5 Share held by natural persons
	2.6 Share directly held by officers
	2.7 Share directly held by executives

The data for the analysis were acquired from the DEF 14A annual report given by companies to the Securities Exchange Commission, complemented, where necessary, by the Standard and Poor's Register of Corporations, Directors and Executives. The time span considered coincided with the three years before the date on which the company resorted to the examination procedure. The same time span was considered for the companies included in the control sample. To verify redundancy among the variables considered we performed a correlation analysis.

Table 3: *The Correlation Matrix*

	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	2.5	2.6	2.7
1.1	1.00	.00	0.25	.53**	.30	.64**	.25	-.38	.23	-.33	.26	-.07	-.05
1.2		1.00	-0.34*	.00	.10	.38	.23	.29	.09	-.15	-.30	-.14	-.08
1.3			1.00	0.15	0.08	0.13	-0.03	0.23	0.11	-0.16	0.04	0.23	0.12
1.4				1.00	.58**	.67**	.17	-.29	.48*	-.36	.25	.37	-.24
1.5					1.00	.48	.27	-.37	.61*	-.31	.08	.32	-.30
1.6						1.00	.38	-.17	.14	-.41	-.01	-.08	-.29
2.1							1.00	-.14	-.10	-.21	-.05	-.10	-.29
2.2								1.00	-.20	-.27	-.12	-.18	-.16
2.3									1.00	.06	.12	.50*	-.09
2.4										1.00	.04	.03	-.21
2.5											1.00	.13	.14
2.6												1.00	.26
2.7													1.00

At * $p < .05$, ** $p < .01$, *** $p < .001$

Some significant correlations between the variables characterizing the governance structure emerge from the analysis, and in particular: between the type of board chosen and the organization into subgroups, and between the number of members, the number of meetings and the organization into subgroups.

3.1 Results of the Analysis

The group under study, made up of companies in a state of crisis, was compared to the control group, made up of healthy companies, by a variance analysis (ANOVA) of type 2x2x2. The results of the analysis are shown in the following table.

Table 4: Variance Analysis

Factor	Variable	Explained variance	Residual variance	F-test	Sig. of F
Structure of the governing board	Type of board	.3879	.2533	1.53	.23
	Fraction of independent directors	.026	1.474	.35	.56
	Fraction of external directors from financial firms	.321	.041	7.82**	.37
	Number of board members	30.9833	8.6508	3.58	.07
	Number of board meetings	15.7500	37.5714	.41	.52
	Number of groups into which the board is organized ¹¹	2.0742	2.2508	.92	.34
Structure of the ownership super-system	Share held by non-captive financial institutions	1.7981	1.2408	1.44	.24
	Share held by financial institutions c/director	.2188	.0338	6.46**	.01
	Share held by non-officer c/captive employees (Pension Fund)	.0008	.0013	.59	.44
	Share held by industrial companies	.0337	.0059	5.75*	.02
	Share held by private persons	.0007	.0005	1.47	.23
	Share directly held by officers	.0359	.0335	1.07	.31
	Share directly held by executives	.0002	.0005	.36	.55
	Degree of company concentration	.4963	1.1336	.43	.51

At * $p < .05$, ** $p < .01$, *** $p < .001$

It is possible to observe some significant differences between the two companies in the sample. Regarding the composition of the corporate executive boards, the participation of external directors also holding jobs in financial institutions, is particularly significant: they are more present in healthy companies than in those in a state of crisis. Regarding ownership composition and, in particular, referring to the variables ‘share held by financial institutions captive c/director’ and ‘share held by other industrial companies’ we observe that: the first one, that is the presence of financial institutions (investment or trust funds) controlled by corporate directors is higher in companies undergoing examining procedures (average 20%) than in healthy ones (less than 1%). the second variable, that is the presence of industrial ownership, is instead higher in healthy companies (9% on average) than in the ones undergoing an examination procedure (1% on average).

We then performed a regression analysis according to a Logit-type model, where the dependent variable is the state of the company (binary variable with 1 corresponding to normal state and 2 to crisis) and the predictors are the attributes of the structure of the governing board and the ownership, to explore the sign of the observed correlations¹².

Table 5: Logit Regression Analysis

Variable/Factor	Model 1	Model 2
Intercept	0.06**	0.11*
	(0.20)	(0.12)
Control		

Sales proceeds	Removed	Removed
Number of employees	-0.17*	-0.16 [†]
	(3.65)	(3.45)
Industry	Removed	Removed
Predictors		
Type of board	Removed	Removed
Fraction of independent directors	Removed	Removed
Fraction of external directors from financial firms	- 0.3147**	- 0.2847**
	(5.86)	(5.86)
Number of board members	Removed	Removed
Number of board meetings	Removed	Removed
Number of groups in the board	Removed	Removed
Share held by non-captive financial institutions	Removed	Removed
Share held by financial institutions controlled by directors		0.326**
		(6.03)
Share held by pension funds		Removed
Share held by industrial companies		-0.165**
		(5.95)
Share held by natural persons		Removed
Share directly held by officers		Removed
Share directly held by executives		Removed
Degree of company concentration		Removed
Goodness of the model – chi squared	19.30**	20.01**
Cox and Snell R ²	0.34	0.43
No. Observations	42	42

The value of the Wald index is given in parentheses.

At [†] p < .10, * p < .05, ** p < .01, *** p < .001

As shown by the model (chi-squared = 20.01**; p<0.01), the fraction of shares held by captive financial institutions, that is controlled by people holding decision making rights within the company, is significant and has a negative influence on the company survival probability. Indeed, the positive regression coefficient shows that the higher the share held by such people, the higher the probability that the company belongs to the group in a state of crisis.

On the contrary, the presence of external directors with significant relationships with financial institutions on one hand, and ownership of industrial companies on the other, has a positive influence on the company's survival probability. The negative regression coefficient for these two variables shows, in fact, that as their value increases so does the probability that the company will be found among the healthy ones.

3.2 Discussion of the Results

Regarding the structure of the governing board, on one hand the results of the analysis lead to the rejection of the hypothesis that the structure of the corporate governing boards is in general a factor discriminating healthy companies from companies in a state of crisis. The results of other empirical works in which the lack of significance of these factors was shown (Kesner, Victor, Lamont, 1986; Daily, 1994) are thus confirmed. In this sense such structural elements may represent ‘[...] an institutional product, adopted essentially for purposes of external legitimisation’¹³.

On the other hand, the analysis seems to highlight the importance of the composition of the corporate executive boards. In particular, it was observed that healthy companies have a fraction of external directors holding jobs in financial institutions that is higher, on average, than companies in a state of crisis. When keeping into account the negative correlation between this variable and the fraction of directors with jobs in industrial companies we are led to postulate that healthy companies also have a lower fraction of such directors than companies in a state of crisis¹⁴.

As far as the ownership structure is conceived, it was instead observed that companies in a state of crisis show a significant company share held by directors through financial institutions they own themselves. Such results confirm certain perplexities already expressed in the literature about the negative effects on companies of the accumulation in the same person of control and management roles, without the person sustaining the company risk. The use of sophisticated financial instruments, such as captive financial institutions to control the company, in general has effects both on the ownership system and the relationships between such a system and the corporate system.

At the level of the ownership system these approaches allow a person to increase decision-making power while keeping risk at the same level. For the controlling person, a peculiar solution thus emerges to the problem of expanding control while limiting the risk sustained¹⁵. Where such conditions are realized a dissociation between influence exerted and risk faced becomes manifest. Such dissociation can lead to the emergence of an ownership system whose goals, influenced by the controlling person, can potentially be in contrast with the goals of the company, the minority shareholders and even the financial system¹⁶.

It was also observed that healthy companies show a more significant company share held by industrial organizations. The significance of the industrial nature of ownership is thus highlighted. The concept that ‘[...] the correspondence between finance and risk is becoming looser, while other forces appear in the realm of industrial risk and present themselves as interests complementing or replacing financial ownership’¹⁷ is thus confirmed.

Industrial ownership in some cases can become a strategic centre of gravity, by exploiting its legacy of competences and relationships with other players of the socio-economic context to guide and stimulate the development of new ideas and innovative projects, the transfer of knowledge, and the integration of the skills characterizing the controlled companies¹⁸. In this case the controlling entity assumes a very significant role within the ownership to limit the controlled

company's risk, while at the same time exposing its own intangible assets made of knowledge, reputation, trust relationships, etc. to risk.

3.3 Limits of the Study

This study presents some limits of both formal and substantial nature. From the formal point we note that: the sample used is still limited in size, the companies used to form the control sample have been selected based on sales proceeds and business sector, the analysis is based on a limited period of time and on the comparison of period averages. From a formal point of view, first of all, the study did not consider the relationship between the components of the corporate governing board structure, between the components of the ownership super-system and between these and the components of the governing board. Moreover, the study did not consider the role played by the controlling of the company by other super-systems, for example the labour, institutional and consumer super-systems.

4. Prospects for Investigation

Starting from considering the limits of this study it must be noted that, the ownership system, like the other super-systems, has its limits in controlling the development dynamics of the corporate system. These limits come from the imperfections, in varying measure, that characterize the tools used by the ownership to control the corporate system. It follows that, besides ownership, other systemic entities are considered instrumental to exert pressure on the corporate system. For example, we refer to the institutional, labour and consumer systems¹⁹.

Therefore, the study of corporate governance should be approached by considering the control exerted jointly by all super-systems, together with the role played by specific components of the governing board (board of directors, control committees, etc.). By considering the action of the governing board and the super-systems together, four situations can be considered:

- a) The state of crisis is perceived by the super-systems: for example, this was the case for Finmeccanica S.p.A., in which the ownership super-system was able to perceive weak signals of crisis and thus, taking the place of the governing board, imposed a restructuring plan to re-establish equilibrium conditions in the company (Gatti, 2001).
- b) The state of crisis is perceived by the governing board: this was the case, for example, for RAI RadioTelevisioneItaliana, whose crisis 'was not perceived by the executives nor the shareholder, and even less by the unions, the Parliament or the Government'. In this case a central role was played by the governing board, which was able to re-establish equilibrium conditions in the company by intervening in the operational organisation, and then with a plan of external communication (Dematté, 1996).
- c) The state of crisis is perceived by both the governing board and the super-systems: this was the case, for example, for Pirelli S.p.A., in which the governing board, owners and some leading operators of the financial market

perceived the state of crisis together, and jointly set up a restructuring plan (Sicca, Izzo, 1995).

- d) The state of crisis is not perceived by the governing board nor the super-systems: this was the case, for example, for Enron, where neither the governing board nor the other super-systems were able to perceive the state of crisis in which the company found itself in time.

These first hints seem to suggest that while in cases a), b), c) the restructuring process shows peculiar features depending on the person leading it – the governing board in case b), super-systems in case a) and both jointly in case c) – in case d) the limits of the governing board action and the limits of super-system monitoring can make the state of crisis irreversible.

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Notes

¹ This work develops a contribution presented by the authors at the International Conference 'Design organisationnel: créer, innover, relier' Nancy 23-25 October 2002.

² An example of possible opportunistic behaviour of a super-system toward a company is given by transactions within a group dictated '[...] by the interest of the leading company [ownership super-system] and not justified in the limited market sphere of the individual companies'. See Saraceno P. 1972, *Il governo delle aziende*, Libreria Universitaria Editrice, Venezia, p. 36

³ Caselli L. 1966, *Teoria dell'organizzazione e Processi decisionali nell'impresa*, Giappichelli, Torino, pp. 84-85.

⁴ On this topic see Milgrom P. and J. Roberts 1994, *Economia, Organizzazione e Management*, Il Mulino, Bologna, p. 433.

⁵ Barzel Y. 1997, *Economic Analysis of Property Rights*, Cambridge University Press, Cambridge, p. 48.

⁶ Fama F. and M. Jensen 1983, Separation of Ownership and Control, in *Journal of Law and Economics*, Vol. 26, pp. 301-385.

⁷ See Kesner A. 1988, Director Characteristics and Committee membership: an Investigation of Type, Occupation, Tenure and Gender, in *Academy of Management Journal*, 4, pp. 23-35; Walsh J. P. and J.K. Seward 1990, Bankruptcy, Board, Banks and Blockholders, in *Journal of Financial Economics*, 27, pp. 355-387.

⁸ All companies considered have a net volume of assets exceeding US\$ 100 million

⁹ In the one-tier model, the management and control roles are concentrated in the board. In the two-tier model, the board is divided in a control function (performed by the supervisory board) and a decision making function (performed by the executive board).

¹⁰ The definition of independent director is taken from the S.E.C. (Security Exchange Committee) rules 14A e 6A.

¹¹ The committees in which the executive board is most often organized are the executive committee, the auditing committee, the compensation committee, the nomination committee, the stock option committee, the finance committee and the governance committee.

¹² Regression model with predictor extraction through blocking procedure.

¹³ Power R. 2002, *La società dei Controlli*, Edizioni di Comunità, Milano, p. 133.

¹⁴ About the risks connected to the interference in the ownership system of the company see Golinelli G. 2001, *L'approccio Sistemico al Governo dell'impresa*, Vol I. Cedam, Padova, and in particular Chap. VI – The Governing Board.

¹⁵ Regarding the determination of the benefits connected to the use of intermediate companies within pyramidal groups see Petix L. 1979, *Aspetti della Gestione Finanziaria dei Gruppi*, Cedam, Padova, pp. 24 ff.

¹⁶ This can be due to the fact that '[...] only part of the costs and benefits of a decision are ascribed to the decision makers ' and thus the controlling person could have an '[...] interest in ignoring some of these effects, thus very often making inefficient decisions '. Ibid., p. 433. These decisions, potentially in conflict with the goals of the company and the shareholders, as remarked by Pasquale Saraceno, can concern '[...] the determination of prices to be set for transactions between the group companies, [...] the setting of limits to the development horizon of some companies, [...] the adoption of certain budget and dividend distribution policies, etc.'. Saraceno P., *op.cit.*, 1972, pp. 98 ff.

¹⁷ Rullani E. 1990, Preface to Pilotti L., *L'impresa Post-manageriale*, EGEA, Milano.

¹⁸ For a more in-depth treatment of the problem, see. Lorenzoni G. and C. Fuller Baden 1995, *Creating a Strategic Centre to Manage web of Partners*, in *California Management Review*, 3, passim.

¹⁹ Regarding the importance of the labour and consumer systems in corporate control see Stiglitz J.E., *I mercati del credito e il controllo del capitale*, in Vaciago G. and G. Verga, 1995, *Efficienza e Stabilità dei Mercati finanziari*, Il Mulino, Bologna, pp. 114-115.